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January 23, 2019

Mr. David Newell  
Consultant Manager  
New York State Department of Transportation  
1220 Washington Avenue  
Albany, NY 12232

Attention: Ms. Gretchen Fitzgerald

**Re: PIN 8807.31.101**  
**Harrison Sub-Residency Petroleum Spill Area (Spill #94-07349)**  
**5<sup>th</sup> Quarter Monitoring Report – October 2018**  
**West Harrison, New York**

Dear Ms. Fitzgerald:

TRC Engineers, Inc. (TRC) has prepared the following letter report to present the findings of the groundwater monitoring conducted at the Harrison Sub-Residency Petroleum Spill Area (hereafter referred to as the "Site"). The Harrison Sub-Residency is located at the intersection of New York Route 120 and King Street. The Site is a historic seasonal highway support and salt storage facility which is currently occupied by the Town of Harrison. The New York State Department of Transportation (NYSDOT) document titled "Operation and Maintenance Plan for the Harrison Sub-residency Landfill and Petroleum Spill Area" (hereafter referred to as the "O&M Plan") and dated February 2010 outlines the fifth quarter monitoring program established by the New York State Department of Environmental Conservation (NYSDEC) relating to Spill #94-07349 at the Site. The spill was closed by NYSDEC on October 10, 2002 following the discontinuation of operations of an on-site air sparge/soil vapor extraction system. Only two (2) monitoring wells installed in response to the spill, MW-11 and PC-1, have not been decommissioned by NYSDOT. TRC performed the Site groundwater monitoring of these two wells for the NYSDOT in accordance with TRC's August 2018 approved scope of service.

### **Groundwater Sampling Activities**

TRC completed the October 2018 monitoring event between October 15 and 23, 2018. Figure 1 provides a Site Location Map and Figure 2 provides a Site Map of the previously documented spill area. No signs of well damage or tampering were noted during visual inspection of the wells prior to commencing groundwater sampling. Depth to groundwater and total depth measurements of the monitoring wells were measured with a water level sensing device relative to the top of the inner well casing. No non-aqueous phase liquid was detected in either of the sampled wells. An

organic vapor headspace reading was measured at each monitoring well using a photoionization detector (PID). There were no headspace PID detections above background levels at either of the two monitoring wells.

Groundwater in each well was purged and sampled utilizing a peristaltic pump equipped with new dedicated tubing. During purging, field readings for pH, conductivity, temperature, oxidation reduction potential, dissolved oxygen, and turbidity were monitored and documented using a flow-through cell and multi parameter meter. The groundwater sampling logs completed by TRC are provided in Appendix A.

Groundwater samples were collected following stabilization of water quality parameters. Groundwater samples, including one blind duplicate at PC-1, were analyzed for the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, xylenes (collectively referred to as BTEX), and methyl tert-butyl ether (MTBE), as well as specified natural attenuation parameters including dissolved iron, dissolved manganese, nitrate, sulfate, total sulfide, total alkalinity, and bicarbonate alkalinity. The groundwater samples for dissolved iron and dissolved manganese were field filtered with dedicated disposable filters prior to preservation.

Groundwater samples were containerized in laboratory supplied jars, labeled, and placed in a chilled cooler for shipment to Hampton-Clarke/Veritech, Inc, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory. Trip blank samples provided by the laboratory also accompanied each sample shipment to the laboratory and were analyzed for VOCs.

Decontamination and purge water was drummed and staged onsite, pending receipt of the groundwater sample test data and acceptance of the waste profile by the selected wastewater treatment facility, Veolia Environment Services (Schenectady, New York). The drummed water was transported off-Site by MC Environmental Services of Queensbury, New York on December 19, 2018. The waste transport and disposal documentation are provided in Appendix B.

### **Groundwater Sample Results**

Results of the groundwater sample analyses were compared to the NYSDEC Class GA Groundwater Standards or Guidance Values (NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1, June 1998) and are summarized in Table 1. A copy of the laboratory sample data report is provided in Appendix C. Note that the lab report includes laboratory analytical data pertaining to the Harrison Sub-Residency Landfill Site as well as the Harrison Spill Site (the subject of this report) as both sites were sampled concurrently. A separate letter report was provided for the landfill site monitoring.

Well MW-11 is located downgradient of the spill area and within the previously reported leading edge of the plume while well PC-1 is located down/side-gradient of the plume. At MW-11, three BTEX compounds were detected and one (ethylbenzene) was detected at a level above the



respective Class GA groundwater standard. There were no VOCs detected at well PC-1. Additionally, dissolved iron and manganese were detected in both monitoring wells above the corresponding Class GA groundwater standard. The table below provides a summary of the exceedances.

**Detected Groundwater Concentrations  
Greater than Class GA Groundwater Standards**

| Analyte      | NYSDEC Class<br>GA Groundwater<br>Standards (µg/L) | Monitoring Well Identification |                                           |                        |
|--------------|----------------------------------------------------|--------------------------------|-------------------------------------------|------------------------|
|              |                                                    | PC-1-102018<br>(µg/L)          | GW-DUP1-<br>102018 <sup>1</sup><br>(µg/L) | MW-11-102018<br>(µg/L) |
| Ethylbenzene | 5                                                  | ND                             | ND                                        | <b>17</b>              |
| Iron         | 300/500 <sup>2</sup>                               | <b>240</b>                     | <b>230</b>                                | <b>1,600</b>           |
| Manganese    | 300/500 <sup>2</sup>                               | <b>2,000</b>                   | <b>2,000</b>                              | <b>1,600</b>           |

Notes:

<sup>1</sup> – GW-DUP1-102018 is a blind duplicate of PC-1-102018

<sup>2</sup> – Standard of 300 µg/L applies to each substance and 500 µg/L applies to the sum of these substances  
µg/L – micrograms per liter

**Bolded** exceed the Class GA groundwater standard

ND – Not Detected

Of the natural attenuation parameters that were analyzed, only sulfate has a Class GA groundwater standard (250,000 µg/L). Sulfate was detected in each of the wells below the Class GA Standard. Bicarbonate alkalinity and total alkalinity concentrations ranged from 270 µg/L at MW-11 to 450 µg/L at PC-1. Neither nitrite, nitrate, nor sulfide were detected above the laboratory reporting limit in either of the wells.

**Quality Assurance/Quality Control Sample Results**

A duplicate sample (i.e., GW-DUP1-102018) was collected from groundwater monitoring well PC-1 for quality assurance/quality control (QA/QC) purposes. One method of assessing data quality is by calculating and interpreting the relative percent difference (RPD) between duplicate samples. The RPD can be calculated using the formula below:

$$\% RPD = \frac{X_1 - X_2}{(X_1 + X_2)/2} * 100\%$$

where,  $X_1$  is the original value (PC-1-102018), and  
 $X_2$  is the duplicate value (GW-DUP1-102018)

Iron was the only analyte with a concentration detected which differed between the two samples. The RPD for iron was 4%. This calculated RPD is statistically insignificant and does not affect data usability.



### **Discussion of Groundwater Sample Results**

TRC updated the database of historical groundwater quality data and concentration trend graphs previously prepared by HDR/EPM to support an evaluation of trends in groundwater quality data at the Site over time. The updated database and corresponding trend graphs are provided in Appendix D of this letter report.

Generally, the concentrations of petroleum-related compounds (BTEX, MTBE) at well MW-11 are continuing to decline over time, however, ethylbenzene was detected during this monitoring event at a concentration above the Class GA groundwater standard. The concentration of ethylbenzene in MW-11 has fluctuated over the last few years ranging from non-detect in July 2017, up to 93 µg/L in April 2016, and most recently 17 µg/L in October 2018. No VOCs were detected at the down/side-gradient well PC-1 in October 2018 which is consistent with historic results. Dissolved iron remains elevated at MW-11 compared to PC-1 providing evidence that natural degradation conditions are still favourable.

Please contact me at (860)298-6233 or [jperonto@trcsolutions.com](mailto:jperonto@trcsolutions.com) with any questions or comments.

Sincerely,

**TRC Engineers, Inc.**



James Peronto, P.E.  
Program Manager

cc: K. Myers, TRC





**Attachments:**

**Figures**

Figure 1 – Site Location Map

Figure 2 – Monitoring Well Location Plan

**Table**

Table 1 – Groundwater Analytical Data Summary

**Appendices**

Appendix A – Groundwater Sampling Logs

Appendix B – Waste Disposal Documentation

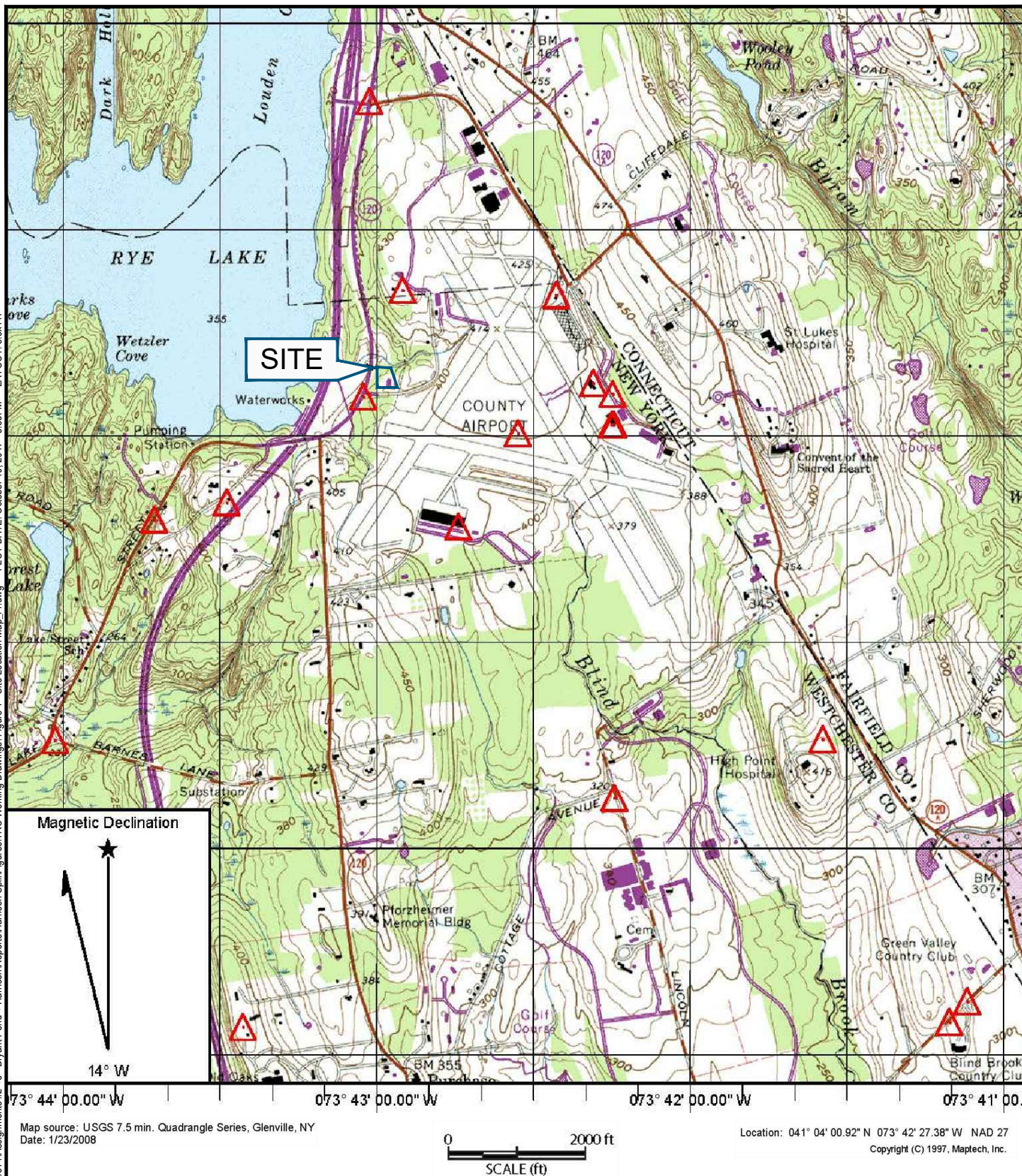
Appendix C – Laboratory Data Report

Appendix D – Select Analyte Data and Trends

## FIGURES



8.5x11P --- ATTACHED XREFS: --- ATTACHED IMAGES: Harrison Landfill Figure Page 1: --- PLOT DATE: October 10, 2017 --- 5:53PM --- LAYOUT: 8.5x11P  
DRAWING NAME: I:\Projects\NYSDOT - D03137\Assignments\2 - 3 - Bryant Pond + Harrison\Reports\Harrison Spill\Figures\TRC Working Drawings\Figure 1 - Site Location Map\_r1.dwg



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PROJECT: **NEW YORK STATE DEPARTMENT OF TRANSPORTATION  
PIN 8807.31.101 - HARRISON SPILL SITE (SPILL #94-07349)  
HARRISON SUB-RESIDENCY  
WEST HARRISON, NEW YORK**

TITLE:

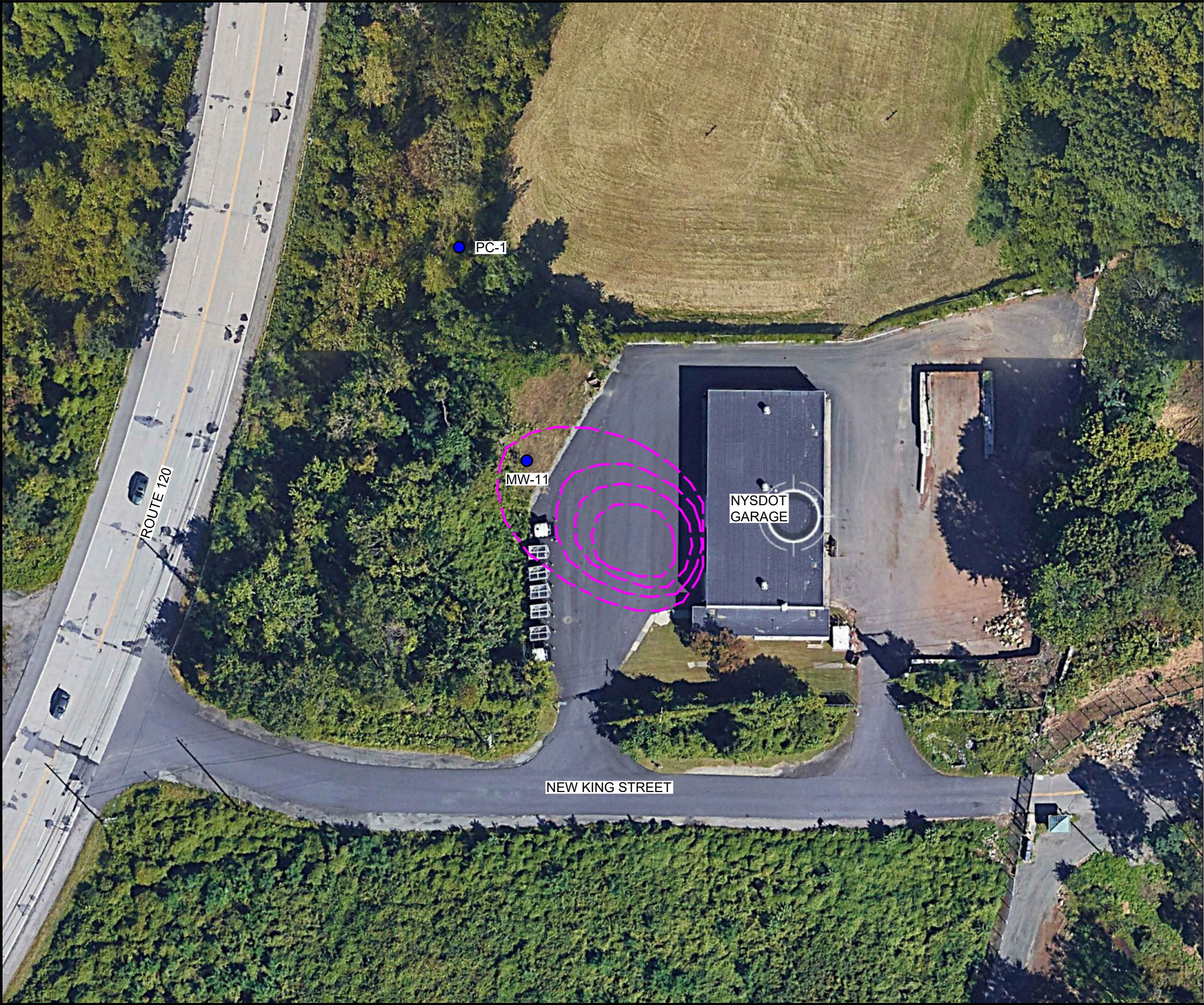
## SITE LOCATION MAP

|              |                                     |
|--------------|-------------------------------------|
| DRAWN BY:    | H. DELGADO                          |
| CHECKED BY:  | A. CHALMERS                         |
| APPROVED BY: | K. MYERS                            |
| DATE:        | OCTOBER 2017                        |
| PROJ. NO.:   | 280089.0001.0000                    |
| FILE:        | Figure 1 - Site Location Map_r1.dwg |

**FIGURE 1**



11X17L  
11X17 - ATTACHED XREFS: --- ATTACHED IMAGES: Harrison Spill GEPRD-100FT  
DRAWING NAME: I:\Projects\NYSDOT - D03137\Assignments #2 +3 - Bryant Pond + Harrison\Reports\Harrison Spill\Figures\TRC Working Drawings\Figure 2 - Spill Site Monitoring Well Locations\_r1.dwg --- PLOT DATE: October 10, 2017 - 5:55PM --- LAYOUT: 11X17L



LEGEND (SYMBOLS NOT TO SCALE):

- GP-XX  
OR  
MW-XX

GROUNDWATER  
MONITORING WELL  
LOCATION AND  
IDENTIFICATION  
NUMBER
- APPROXIMATE PLUME  
LOCATION



- SOURCES:
- AERIAL IMAGE FROM GOOGLE EARTH PRO, DATED APRIL 16, 2016.
  - APPROXIMATE PLUME LOCATION FROM HDR ENGINEERING, INC.



PROJECT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION  
PIN 8807.31.101 - HARRISON SPILL SITE (SPILL #94-07349)  
HARRISON SUB-RESIDENCY  
WEST HARRISON, NEW YORK

TITLE: MONITORING WELL LOCATION MAP

|              |              |           |                  |
|--------------|--------------|-----------|------------------|
| DRAWN BY:    | H. DELGADO   | PROJ NO.: | 280089.0000.0000 |
| CHECKED BY:  | A. CHALMERS  | FIGURE 2  |                  |
| APPROVED BY: | K. MYERS     |           |                  |
| DATE:        | OCTOBER 2017 |           |                  |



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FILE NO.: Figure 2 - Spill Site Monitoring Well Locations\_r1.dwg



## TABLE

TABLE 1  
NYSDOT - Harrison Sub-Residency Petroleum Spill Area  
Groundwater Analytical Data Summary  
October 2018

|                                       | CLIENT ID:<br>LAB ID:<br>COLLECTION DATE: | PC-1-102018<br>AD07118-003<br>10/15/2018 |       | GW-DUP1-102018<br>AD07118-005<br>10/15/2018 |      | MW-11-102018<br>AD07118-007<br>10/15/2018 |       | TB-1<br>AD07118-009<br>10/15/2018 |      |
|---------------------------------------|-------------------------------------------|------------------------------------------|-------|---------------------------------------------|------|-------------------------------------------|-------|-----------------------------------|------|
| Analyte                               | NYSDEC Class GA<br>Standards <sup>1</sup> | Result                                   | RL    | Result                                      | RL   | Result                                    | RL    | Result                            | RL   |
| Volatile Organic Compounds (µg/L)     |                                           |                                          |       |                                             |      |                                           |       |                                   |      |
| Benzene                               | 1                                         | ND                                       | 0.50  | ND                                          | 0.50 | ND                                        | 0.50  | ND                                | 0.50 |
| Ethylbenzene                          | 5                                         | ND                                       | 1.0   | ND                                          | 1.0  | 17                                        | 1     | ND                                | 1.0  |
| m&p-Xylenes                           | 5 <sup>2</sup>                            | ND                                       | 1.0   | ND                                          | 1.0  | 2                                         | 1     | ND                                | 1.0  |
| Methyl-t-butyl ether                  | 10                                        | ND                                       | 0.50  | ND                                          | 0.50 | ND                                        | 0.50  | ND                                | 0.50 |
| o-Xylene                              | 5 <sup>2</sup>                            | ND                                       | 1.0   | ND                                          | 1.0  | ND                                        | 1     | ND                                | 1.0  |
| Toluene                               | 5                                         | ND                                       | 1.0   | ND                                          | 1.0  | ND                                        | 1     | ND                                | 1.0  |
| Xylenes (Total)                       | 5 <sup>2</sup>                            | ND                                       | 1.0   | ND                                          | 1.0  | 2                                         | 1     | ND                                | 1.0  |
| Total BTEX                            | NS                                        | ND                                       | -     | ND                                          | -    | 19                                        | -     | ND                                | -    |
| Metals (µg/L)                         |                                           |                                          |       |                                             |      |                                           |       |                                   |      |
| Iron                                  | 300/500 <sup>3</sup>                      | 240                                      | 300   | 230                                         | 300  | 1,600                                     | 300   |                                   |      |
| Manganese                             | 300/500 <sup>3</sup>                      | 2,000                                    | 40    | 2,000                                       | 40   | 1,600                                     | 40    |                                   |      |
| Natural Attenuation Parameters (µg/L) |                                           |                                          |       |                                             |      |                                           |       |                                   |      |
| Alkalinity (Total)                    | NS                                        | 450                                      | 10    |                                             |      | 270                                       | 10    |                                   |      |
| Alkalinity (Bicarbonate)              | NS                                        | 450                                      | 10    |                                             |      | 270                                       | 10    |                                   |      |
| Alkalinity (Carbonate)                | NS                                        | ND                                       | 10    |                                             |      | ND                                        | 10    |                                   |      |
| Nitrite                               | NS                                        | ND                                       | 1,000 |                                             |      | ND                                        | 1,000 |                                   |      |
| Nitrate                               | NS                                        | ND                                       | 1,000 |                                             |      | ND                                        | 1,000 |                                   |      |
| Sulfate                               | 250,000                                   | 8,100                                    | 2,000 |                                             |      | 7,500                                     | 2,000 |                                   |      |
| Sulfide <sup>5</sup>                  | NS                                        | ND                                       | 2     | ND                                          | 2    | ND                                        | 2     |                                   |      |

Notes:

(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1),

(2) -There is no GA value for total xylenes. The standards for o-xylene, m-xylene, and p-xylene is 5 µg/L

(3) Standard of 300 ug/L applies to each substance and 500 ug/L applies to the sum of these substances

(4) GW-DUP1-102018 is blind duplicate of PC-1-102018

(5) Sulfide was sampled separately from all other analytes, on October 23, 2018. Due to this, the laboratory IDs listed within the laboratory report for sulfide analysis are different than those displayed above.

NS - No Standard

ND - Analyte not detected at the listed reporting limit

RL - Reporting Limit

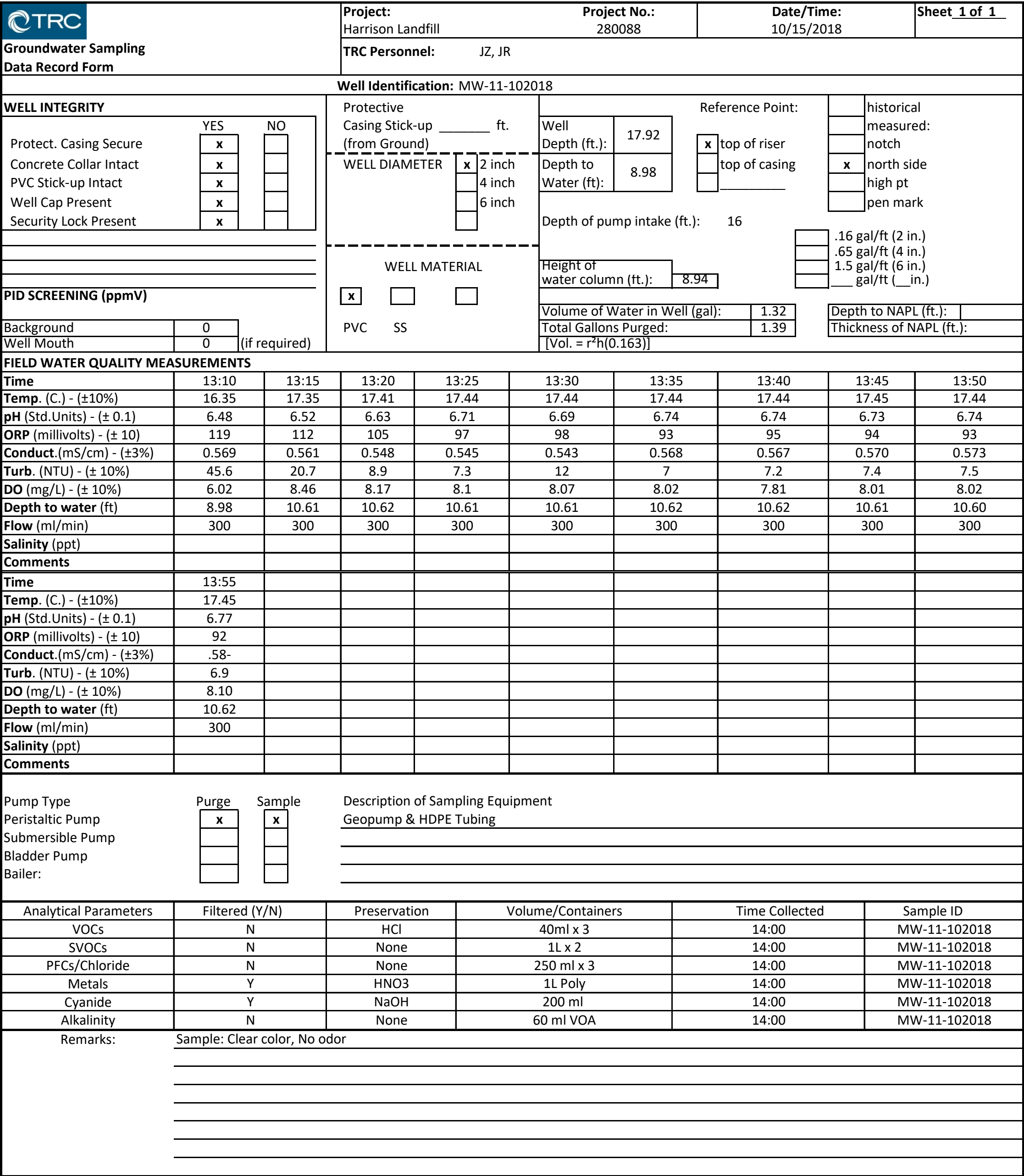
µg/L - micrograms per liter

Shaded and **bolded** values exceed regulatory criteria

Alkalinity values are reported in milligrams of CaCO3 per liter (mg CaCO3/L)



**APPENDIX A**  
**GROUNDWATER SAMPLING LOGS**





|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------|------------------------|-------------------------------------|--------------------------|--------------------------------------------------|---------------------|------------------------------------------------|
|  |                                                                      | Project:<br>Harrison Landfill       |                                                       | Project No.:<br>280088 |                                     | Date/Time:<br>10/23/2018 |                                                  | Sheet <u>1 of 1</u> |                                                |
| Groundwater Sampling<br>Data Record Form                                        |                                                                      | TRC Personnel: JZ, JR               |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Well Identification: MW-11-102018                                               |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| <b>WELL INTEGRITY</b>                                                           |                                                                      |                                     | Protective Casing Stick-up _____ ft.<br>(from Ground) |                        | Well Depth (ft.): 17.92             |                          | Reference Point:                                 |                     | historical                                     |
| Protect. Casing Secure                                                          |                                                                      |                                     | <input checked="" type="checkbox"/>                   |                        | Depth to Water (ft.): 8.98          |                          | <input checked="" type="checkbox"/> top of riser |                     | <input type="checkbox"/> measured:             |
| Concrete Collar Intact                                                          |                                                                      |                                     | <input checked="" type="checkbox"/>                   |                        |                                     |                          | <input type="checkbox"/> top of casing           |                     | <input checked="" type="checkbox"/> north side |
| PVC Stick-up Intact                                                             |                                                                      |                                     | <input checked="" type="checkbox"/>                   |                        |                                     |                          |                                                  |                     | <input type="checkbox"/> high pt               |
| Well Cap Present                                                                |                                                                      |                                     | <input checked="" type="checkbox"/>                   |                        |                                     |                          |                                                  |                     | <input type="checkbox"/> pen mark              |
| Security Lock Present                                                           |                                                                      |                                     | <input checked="" type="checkbox"/>                   |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| <b>PID SCREENING (ppmV)</b>                                                     |                                                                      |                                     | WELL MATERIAL                                         |                        | Height of water column (ft.): 8.94  |                          |                                                  |                     |                                                |
| Background                                                                      |                                                                      |                                     | <input checked="" type="checkbox"/> PVC               |                        | Volume of Water in Well (gal): 1.32 |                          | Depth to NAPL (ft.):                             |                     |                                                |
| Well Mouth                                                                      |                                                                      |                                     | <input type="checkbox"/> SS                           |                        | Total Gallons Purged: 1.39          |                          | Thickness of NAPL (ft.):                         |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        | [Vol. = r <sup>2</sup> h(0.163)]    |                          |                                                  |                     |                                                |
| <b>FIELD WATER QUALITY MEASUREMENTS</b>                                         |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Time                                                                            | 13:05                                                                | 13:10                               | 13:15                                                 | 13:20                  | 13:25                               | 13:30                    |                                                  |                     |                                                |
| Temp. (C.) - (±10%)                                                             | 17.21                                                                | 17.26                               | 17.19                                                 | 17.10                  | 17.09                               | 17.10                    |                                                  |                     |                                                |
| pH (Std.Units) - (± 0.1)                                                        | 6.63                                                                 | 6.61                                | 6.58                                                  | 6.58                   | 6.57                                | 6.58                     |                                                  |                     |                                                |
| ORP (millivolts) - (± 10)                                                       | 77                                                                   | -15                                 | -15                                                   | -14                    | -13                                 | -13                      |                                                  |                     |                                                |
| Conduct.(mS/cm) - (±3%)                                                         | 0.967                                                                | 0.982                               | 1.020                                                 | 1.020                  | 1.030                               | 1.030                    |                                                  |                     |                                                |
| Turb. (NTU) - (± 10%)                                                           | 4.5                                                                  | 4.6                                 | 0.1                                                   | 0                      | 0                                   | 0                        |                                                  |                     |                                                |
| DO (mg/L) - (± 10%)                                                             | 0.27                                                                 | 0.22                                | 0.08                                                  | 0.00                   | 0.00                                | 0.00                     |                                                  |                     |                                                |
| Depth to water (ft)                                                             | 10.53                                                                | 10.61                               | 10.63                                                 | 10.63                  | 10.64                               | 10.64                    |                                                  |                     |                                                |
| Flow (ml/min)                                                                   | 300                                                                  | 300                                 | 300                                                   | 300                    | 300                                 | 300                      |                                                  |                     |                                                |
| Salinity (ppt)                                                                  | 0.5                                                                  | 0.5                                 | 0.5                                                   | 0.5                    | 0.5                                 | 0.5                      |                                                  |                     |                                                |
| Comments                                                                        |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Time                                                                            |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Temp. (C.) - (±10%)                                                             |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| pH (Std.Units) - (± 0.1)                                                        |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| ORP (millivolts) - (± 10)                                                       |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Conduct.(mS/cm) - (±3%)                                                         |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Turb. (NTU) - (± 10%)                                                           |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| DO (mg/L) - (± 10%)                                                             |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Depth to water (ft)                                                             |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Flow (ml/min)                                                                   |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Salinity (ppt)                                                                  |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Comments                                                                        |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Pump Type                                                                       | Purge                                                                | Sample                              | Description of Sampling Equipment                     |                        |                                     |                          |                                                  |                     |                                                |
| Peristaltic Pump                                                                | <input checked="" type="checkbox"/>                                  | <input checked="" type="checkbox"/> | Geopump & HDPE Tubing                                 |                        |                                     |                          |                                                  |                     |                                                |
| Submersible Pump                                                                |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Bladder Pump                                                                    |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Bailer:                                                                         |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Analytical Parameters                                                           | Filtered (Y/N)                                                       | Preservation                        | Volume/Containers                                     | Time Collected         | Sample ID                           |                          |                                                  |                     |                                                |
| Sulfide                                                                         | N                                                                    | Zn Acetate                          | 500 mL Poly                                           | 13:30                  | MW-11-102018                        |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
| Remarks:                                                                        | Sample: Clear color, No odor                                         |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 | Only Sulfide Sampled as it was missed in original 10/15/2018 sample. |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |
|                                                                                 |                                                                      |                                     |                                                       |                        |                                     |                          |                                                  |                     |                                                |

|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------|
|             |                                                           | Project:<br>Harrison Landfill       |                                                                                                                          | Project No.:<br>280088 |                                     | Date/Time:<br>10/15/2018 |                                                                                                                                                                                       | Sheet <u>1 of 1</u> |                                                |
| Groundwater Sampling<br>Data Record Form                                                   |                                                           | TRC Personnel: JZ, JR               |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Well Identification: PC-1-102018                                                           |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| <b>WELL INTEGRITY</b>                                                                      |                                                           |                                     | Protective Casing Stick-up <u>2.5</u> ft.<br>(from Ground)                                                               |                        | Well Depth (ft.): 16.77             |                          | Reference Point: <input checked="" type="checkbox"/> top of riser                                                                                                                     |                     | historical measured: <input type="checkbox"/>  |
| Protect. Casing Secure <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |                                                           |                                     | WELL DIAMETER <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch |                        | Depth to Water (ft.): 3.64          |                          | <input type="checkbox"/> top of casing                                                                                                                                                |                     | <input checked="" type="checkbox"/> north side |
| Concrete Collar Intact <input checked="" type="checkbox"/>                                 |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     | <input type="checkbox"/> high pt               |
| PVC Stick-up Intact <input checked="" type="checkbox"/>                                    |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     | <input type="checkbox"/> pen mark              |
| Well Cap Present <input checked="" type="checkbox"/>                                       |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Security Lock Present <input type="checkbox"/>                                             |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Well behind locked gate <input type="checkbox"/>                                           |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| <b>PID SCREENING (ppmV)</b>                                                                |                                                           |                                     | WELL MATERIAL <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/>               |                        | Height of water column (ft.): 13.13 |                          | <input checked="" type="checkbox"/> .16 gal/ft (2 in.) <input type="checkbox"/> .65 gal/ft (4 in.) <input type="checkbox"/> 1.5 gal/ft (6 in.) <input type="checkbox"/> gal/ft ( in.) |                     |                                                |
| Background 0                                                                               |                                                           |                                     |                                                                                                                          |                        | Volume of Water in Well (gal): 1.85 |                          | Depth to NAPL (ft.):                                                                                                                                                                  |                     |                                                |
| Well Mouth 0 (if required)                                                                 |                                                           |                                     |                                                                                                                          |                        | Total Gallons Purged: 1             |                          | Thickness of NAPL (ft.):                                                                                                                                                              |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        | [Vol. = r <sup>2</sup> h(0.163)]    |                          |                                                                                                                                                                                       |                     |                                                |
| <b>FIELD WATER QUALITY MEASUREMENTS</b>                                                    |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Time                                                                                       | 13:10                                                     | 13:15                               | 13:20                                                                                                                    | 13:25                  | 13:30                               | 13:35                    | 13:40                                                                                                                                                                                 | 13:45               |                                                |
| Temp. (C.) - (±10%)                                                                        | 15.04                                                     | 14.98                               | 15.00                                                                                                                    | 15.00                  | 15.02                               | 15.05                    | 15.06                                                                                                                                                                                 | 13.09               |                                                |
| pH (Std.Units) - (± 0.1)                                                                   | 7.03                                                      | 7.03                                | 7.04                                                                                                                     | 7.04                   | 7.04                                | 7.04                     | 7.04                                                                                                                                                                                  | 7.05                |                                                |
| ORP (millivolts) - (± 10)                                                                  | -64                                                       | -12                                 | -71                                                                                                                      | -74                    | -76                                 | -76                      | -76                                                                                                                                                                                   | -77                 |                                                |
| Conduct.(mS/cm) - (±3%)                                                                    | 1.340                                                     | 1.340                               | 1.360                                                                                                                    | 1.360                  | 1.360                               | 1.360                    | 1.360                                                                                                                                                                                 | 1.360               |                                                |
| Turb. (NTU) - (± 10%)                                                                      | 0.2                                                       | 0.3                                 | 0.4                                                                                                                      | 0.9                    | 1                                   | 1.2                      | 1.2                                                                                                                                                                                   | 1.1                 |                                                |
| DO (mg/L) - (± 10%)                                                                        | 0.00                                                      | 0.00                                | 0.00                                                                                                                     | 0.00                   | 0.00                                | 0.00                     | 0.00                                                                                                                                                                                  | 0.00                |                                                |
| Depth to water (ft)                                                                        |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Flow (ml/min)                                                                              |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Salinity (ppt)                                                                             | 0.7                                                       | 0.7                                 | 0.7                                                                                                                      | 0.7                    | 0.7                                 | 0.7                      | 0.7                                                                                                                                                                                   | 0.7                 |                                                |
| Comments                                                                                   |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Time                                                                                       |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Temp. (C.) - (±10%)                                                                        |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| pH (Std.Units) - (± 0.1)                                                                   |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| ORP (millivolts) - (± 10)                                                                  |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Conduct.(mS/cm) - (±3%)                                                                    |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Turb. (NTU) - (± 10%)                                                                      |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| DO (mg/L) - (± 10%)                                                                        |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Depth to water (ft)                                                                        |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Flow (ml/min)                                                                              |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Salinity (ppt)                                                                             |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Comments                                                                                   |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Pump Type                                                                                  | Purge                                                     | Sample                              | Description of Sampling Equipment                                                                                        |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Peristaltic Pump                                                                           | <input checked="" type="checkbox"/>                       | <input checked="" type="checkbox"/> | Geopump & HDPE Tubing                                                                                                    |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Submersible Pump                                                                           | <input type="checkbox"/>                                  | <input type="checkbox"/>            |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Bladder Pump                                                                               | <input type="checkbox"/>                                  | <input type="checkbox"/>            |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Bailer:                                                                                    | <input type="checkbox"/>                                  | <input type="checkbox"/>            |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
| Analytical Parameters                                                                      | Filtered (Y/N)                                            | Preservation                        | Volume/Containers                                                                                                        |                        | Time Collected                      |                          | Sample ID                                                                                                                                                                             |                     |                                                |
| VOCs                                                                                       | N                                                         | HCl                                 | 40ml x 3                                                                                                                 |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| SVOCs                                                                                      | N                                                         | None                                | 1L x 2                                                                                                                   |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| PFCs/Chloride                                                                              | N                                                         | None                                | 250 ml x 3                                                                                                               |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| Metals                                                                                     | Y                                                         | HNO3                                | 1L Poly                                                                                                                  |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| Cyanide                                                                                    | Y                                                         | NaOH                                | 200 ml                                                                                                                   |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| Alkalinity                                                                                 | N                                                         | None                                | 60 ml VOA                                                                                                                |                        | 13:50                               |                          | PC-1-102018                                                                                                                                                                           |                     |                                                |
| Remarks:                                                                                   | Sample: Clear color, No odor                              |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            | Collected field duplicate GW-DUP-1-102018 @ this location |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |
|                                                                                            |                                                           |                                     |                                                                                                                          |                        |                                     |                          |                                                                                                                                                                                       |                     |                                                |

|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|---------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------|------------------------|-------------------------------------|--------------------------|-------------------------------------------------------------------|---------------------|------------------------------------------------|
|  |                                     | Project:<br>Harrison Landfill       |                                                                                              | Project No.:<br>280088 |                                     | Date/Time:<br>10/23/2018 |                                                                   | Sheet <u>1 of 1</u> |                                                |
| Groundwater Sampling<br>Data Record Form                                        |                                     | TRC Personnel: JZ, JR               |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Well Identification: PC-1-102018                                                |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| <b>WELL INTEGRITY</b>                                                           |                                     |                                     | Protective Casing Stick-up <u>2.5</u> ft.<br>(from Ground)                                   |                        | Well Depth (ft.): 16.77             |                          | Reference Point: <input checked="" type="checkbox"/> top of riser |                     | historical measured: <input type="checkbox"/>  |
| YES NO                                                                          |                                     |                                     | WELL DIAMETER <input checked="" type="checkbox"/> 2 inch                                     |                        | Depth to Water (ft.): 3.64          |                          | <input type="checkbox"/> top of casing                            |                     | <input checked="" type="checkbox"/> north side |
| Protect. Casing Secure <input checked="" type="checkbox"/>                      |                                     |                                     | <input type="checkbox"/> 4 inch                                                              |                        |                                     |                          |                                                                   |                     | <input type="checkbox"/> high pt               |
| Concrete Collar Intact <input checked="" type="checkbox"/>                      |                                     |                                     | <input type="checkbox"/> 6 inch                                                              |                        |                                     |                          |                                                                   |                     | <input type="checkbox"/> pen mark              |
| PVC Stick-up Intact <input checked="" type="checkbox"/>                         |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Well Cap Present <input checked="" type="checkbox"/>                            |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Security Lock Present <input type="checkbox"/>                                  |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Well behind locked gate <input type="checkbox"/>                                |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| <b>PID SCREENING (ppmV)</b>                                                     |                                     |                                     | WELL MATERIAL                                                                                |                        | Height of water column (ft.): 13.13 |                          | <input checked="" type="checkbox"/> .16 gal/ft (2 in.)            |                     |                                                |
| Background 0                                                                    |                                     |                                     | <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> |                        | Volume of Water in Well (gal): 1.85 |                          | <input type="checkbox"/> .65 gal/ft (4 in.)                       |                     | Depth to NAPL (ft.):                           |
| Well Mouth 0 (if required)                                                      |                                     |                                     |                                                                                              |                        | Total Gallons Purged: 1             |                          | <input type="checkbox"/> 1.5 gal/ft (6 in.)                       |                     | Thickness of NAPL (ft.):                       |
|                                                                                 |                                     |                                     |                                                                                              |                        | [Vol. = r <sup>2</sup> h(0.163)]    |                          | <input type="checkbox"/> gal/ft ( in.)                            |                     |                                                |
| <b>FIELD WATER QUALITY MEASUREMENTS</b>                                         |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Time                                                                            | 13:25                               | 13:30                               | 13:35                                                                                        | 13:40                  | 13:45                               | 13:50                    | 13:55                                                             | 14:00               | 14:05                                          |
| Temp. (C.) - (±10%)                                                             | 12.15                               | 11.83                               | 11.86                                                                                        | 11.87                  | 11.85                               | 11.83                    | 11.84                                                             | 11.85               | 11.90                                          |
| pH (Std.Units) - (± 0.1)                                                        | 7.12                                | 7.2                                 | 7.23                                                                                         | 7.23                   | 7.22                                | 7.22                     | 7.22                                                              | 7.21                | 7.21                                           |
| ORP (millivolts) - (± 10)                                                       | 148                                 | 119                                 | 65                                                                                           | 43                     | 32                                  | 16                       | 9                                                                 | 5                   | 0                                              |
| Conduct.(mS/cm) - (±3%)                                                         | 1.460                               | 1.440                               | 1.430                                                                                        | 1.430                  | 1.430                               | 1.420                    | 1.410                                                             | 1.410               | 1.400                                          |
| Turb. (NTU) - (± 10%)                                                           | 0                                   | 0                                   | 0                                                                                            | 0                      | 0                                   | 0                        | 0                                                                 | 0                   | 0                                              |
| DO (mg/L) - (± 10%)                                                             | 1.16                                | 0.42                                | 0.11                                                                                         | 0.7                    | 0.00                                | 0                        | 0                                                                 | 0                   | 0                                              |
| Depth to water (ft)                                                             | 5.05                                | 5.39                                | 5.45                                                                                         | 5.47                   | 5.48                                | 5.48                     | 5.59                                                              | 5.59                | 5.48                                           |
| Flow (ml/min)                                                                   | 300                                 | 300                                 | 300                                                                                          | 300                    | 300                                 | 300                      | 300                                                               | 300                 | 300                                            |
| Salinity (ppt)                                                                  | 0.5                                 | 0.72                                | 0.71                                                                                         | 0.7                    | 0.71                                | 0.7                      | 0.7                                                               | 0.7                 | 0.7                                            |
| Comments                                                                        |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Time                                                                            | 14:10                               | 14:15                               |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Temp. (C.) - (±10%)                                                             | 11.88                               | 11.87                               |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| pH (Std.Units) - (± 0.1)                                                        | 7.21                                | 7.22                                |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| ORP (millivolts) - (± 10)                                                       | -3                                  | -7                                  |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Conduct.(mS/cm) - (±3%)                                                         | 1.500                               | 1.400                               |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Turb. (NTU) - (± 10%)                                                           | 0                                   | 0                                   |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| DO (mg/L) - (± 10%)                                                             | 0.00                                | 0                                   |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Depth to water (ft)                                                             | 5.5                                 | 5.5                                 |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Flow (ml/min)                                                                   | 300                                 | 300                                 |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Salinity (ppt)                                                                  | 0.7                                 | 0.7                                 |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Comments                                                                        |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Pump Type                                                                       | Purge                               | Sample                              | Description of Sampling Equipment                                                            |                        |                                     |                          |                                                                   |                     |                                                |
| Peristaltic Pump                                                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Geopump & HDPE Tubing                                                                        |                        |                                     |                          |                                                                   |                     |                                                |
| Submersible Pump                                                                | <input type="checkbox"/>            | <input type="checkbox"/>            |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Bladder Pump                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>            |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Bailer:                                                                         | <input type="checkbox"/>            | <input type="checkbox"/>            |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Analytical Parameters                                                           | Filtered (Y/N)                      | Preservation                        | Volume/Containers                                                                            |                        | Time Collected                      |                          | Sample ID                                                         |                     |                                                |
| Sulfide                                                                         | N                                   | Zn Acetate                          | 500 mL Poly                                                                                  |                        | 13:50                               |                          | PC-1-102018                                                       |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Remarks: Sample: Clear color, No odor                                           |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
| Only Sulfide Sampled as it was missed in original 10/15/2018 sample.            |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |
|                                                                                 |                                     |                                     |                                                                                              |                        |                                     |                          |                                                                   |                     |                                                |



**APPENDIX B**  
**WASTE DISPOSAL DOCUMENTATION**

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number

N/A

2. Page 1 of

1

3. Emergency Response Phone

800-451-8984

4. Waste Tracking Number

121115 - 01

5. Generator's Name and Mailing Address

NYS DOT Region 8  
Attn: Gretchen Fitzgerald 4 Burnett Blvd.  
Poughkeepsie, NY 12603

Generator's Site Address (if different than mailing address)

NY 120 & New King Street  
West Harrison, NY 10604

Generator's Phone: 845-431-5826

6. Transporter 1 Company Name

MC Environmental Services, Inc.

U.S. EPA ID Number

NYR000021071

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Veolia ES Technical Solutions, LLC  
4301 Ingham Road  
West Carrollton, OH 45449 USA

U.S. EPA ID Number

OHD093945293

Facility's Phone: 937-859-2207/169

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total

Quantity

12. Unit

Wt./Vol.

1. Non RCRA, Non DOT-Regulated  
None None

1

DM

55

G

2.

3.

4.

13. Special Handling Instructions and Additional Information

Petroleum-impacted water  
WIP # 153050  
Approval # 59RLFLIQUID-MH

Emergency Contact: M. Craft - 800-451-8984

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offor's Printed/Typed Name

Signature

Month Day Year

Gretchen Fitzgerald

12 17 18

15. International Shipments

☐ Import to U.S.☐ Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Brian Flanagan

12 19 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

Codi Mulvaney

12 19 18

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity☐ Type☐ Residue☐ Partial Rejection☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER/INTL

DESIGNATED FACILITY

|                                                                                                                                                                                                                                                                                                                                                                         |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------|--|---------------------------------------|--|
| NON-HAZARDOUS<br>WASTE MANIFEST                                                                                                                                                                                                                                                                                                                                         |  | 1. Generator ID Number<br>N/A |  | 2. Page 1 of 2                                                                                                      |  | 3. Emergency Response Phone<br>800-451-6064 |  | 4. Waste Tracking Number<br>121116-01 |  |
| 5. Generator's Name and Mailing Address<br>NYS DOT Region 8<br>Attn: Gretchen Fitzgerald a Barrett Blvd.<br>Poughkeepsie, NY 12603                                                                                                                                                                                                                                      |  |                               |  | Generator's Site Address (if different than mailing address)<br>NY 120 & New King Street<br>West Harrison, NY 10504 |  |                                             |  |                                       |  |
| Generator's Phone<br>845-431-5825                                                                                                                                                                                                                                                                                                                                       |  |                               |  | U.S. EPA ID Number<br>HYR000021071                                                                                  |  |                                             |  |                                       |  |
| 6. Transporter's Company Name<br>HC Environmental Services, Inc.                                                                                                                                                                                                                                                                                                        |  |                               |  | U.S. EPA ID Number<br>INS0080631369                                                                                 |  |                                             |  |                                       |  |
| 7. Transporter's Company Name<br>Venita ES Technical Solutions                                                                                                                                                                                                                                                                                                          |  |                               |  | U.S. EPA ID Number<br>OH0093945293                                                                                  |  |                                             |  |                                       |  |
| 8. Designator's Facility Name and Site Address<br>Venita ES Technical Solutions, LLC<br>4301 Inlandway Road<br>West Carrollton, OH 45449 USA                                                                                                                                                                                                                            |  |                               |  | Facility's Phone<br>937-859-2207-189                                                                                |  |                                             |  |                                       |  |
| 9. Waste Shipping Name and Description                                                                                                                                                                                                                                                                                                                                  |  |                               |  | 10. Containers                                                                                                      |  | 11. Total Quantity                          |  | 12. Line Weight                       |  |
|                                                                                                                                                                                                                                                                                                                                                                         |  |                               |  | No. Type                                                                                                            |  |                                             |  |                                       |  |
| 1. Non RCRA, Non DOT-Regulated<br>None None                                                                                                                                                                                                                                                                                                                             |  |                               |  | 1 0M                                                                                                                |  | 55                                          |  | 0                                     |  |
| 2                                                                                                                                                                                                                                                                                                                                                                       |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 3                                                                                                                                                                                                                                                                                                                                                                       |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 4                                                                                                                                                                                                                                                                                                                                                                       |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 13. Special Handling Instructions and Additional Information<br>Petroleum-impacted water<br>WMP # 153050<br>Approval # SRULFLIQUID-NH<br>Emergency Contact: M. Gazi - 800-451-6064                                                                                                                                                                                      |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| Generator's/Officer's Printed/Typed Name<br>Gretchen Fitzgerald                                                                                                                                                                                                                                                                                                         |  |                               |  | Signature<br>                                                                                                       |  | Month Day Year<br>12 17 18                  |  |                                       |  |
| 15. International Shipments<br><input type="checkbox"/> Export to U.S. <input type="checkbox"/> Export from U.S.                                                                                                                                                                                                                                                        |  |                               |  | Port of entry/exit<br>Date leaving U.S.                                                                             |  |                                             |  |                                       |  |
| 16. Transporter Acknowledgment of Receipt of Materials                                                                                                                                                                                                                                                                                                                  |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| Transporter's Printed/Typed Name<br>Bligh Fleming                                                                                                                                                                                                                                                                                                                       |  |                               |  | Signature<br>                                                                                                       |  | Month Day Year<br>12 19 18                  |  |                                       |  |
| Transporter's Printed/Typed Name<br>Cochran Adkins                                                                                                                                                                                                                                                                                                                      |  |                               |  | Signature<br>                                                                                                       |  | Month Day Year<br>12 19 18                  |  |                                       |  |
| 17. Discrepancy Indication Space<br><input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection                                                                                                                                                 |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| Manifest Reference Number                                                                                                                                                                                                                                                                                                                                               |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 17b. Alternate Facility (for Generator)                                                                                                                                                                                                                                                                                                                                 |  |                               |  | U.S. EPA ID Number                                                                                                  |  |                                             |  |                                       |  |
| Facility's Phone                                                                                                                                                                                                                                                                                                                                                        |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| 17c. Signature of Alternate Facility (for Generator)                                                                                                                                                                                                                                                                                                                    |  |                               |  | Month Day Year                                                                                                      |  |                                             |  |                                       |  |
| 18. Designated Facility Owner or Operator Certification of receipt of materials covered by the manifest except as noted in item 17a                                                                                                                                                                                                                                     |  |                               |  |                                                                                                                     |  |                                             |  |                                       |  |
| Signature<br>H. H. H.                                                                                                                                                                                                                                                                                                                                                   |  |                               |  | Signature<br>                                                                                                       |  | Month Day Year<br>12 18 18                  |  |                                       |  |



# Certificate of Disposition

Veolia ES Technical Solutions, L.L.C., West Carrollton Facility has a RCRA Part B Permit that allows the facility to commingle wastes, recycle, store and transfer waste for distillation, supplemental fuels for energy recovery, thermal treatment, and stabilization

*Veolia ES Technical Solutions, L.L.C. certifies the waste which was received on Manifest Number: 121118-D1 date: 12/28/18 will be/was managed in accordance with all applicable federal state and local laws and regulations*

GENERATOR NAME: NYS Dot Region 8  
GENERATOR EPA ID: NOT REQ

DATE CERTIFICATE ISSUED: 01/02/19

SIGNATURE: Brittany Blankenship

TITLE: WASTE TRACKING COORDINATOR

Veolia ES Technical Solutions, L.L.C., 4301 INFIRMARY ROAD, WEST CARROLLTON, OH 45449, EPA ID# OHD093945293



**APPENDIX C**  
**LABORATORY DATA REPORT**

## Project: Harrison Sub Residency

**Client PO:** 128525

**Report To:** TRC Engineering  
1430 Broadway  
10th Floor  
New York, NY 10018

Attn: James Robinson

**Received Date:** 10/17/2018

**Report Date:** 11/26/2018

**Deliverables:** NYDOH-CatA <sup>B</sup> 12/19/2018

**Lab ID:** AD07118 AD07137 AD07161 AD07325

**Lab Project No:** 8101509

**REVISED**  
12/19/2018

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAP Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.

  
Robin Cousineau - Quality Assurance Director

OR

Jean Revolus - Laboratory Director

NJ (07071)  
PA (68-00463)

NY (ELAP11408)  
KY (90124)

CT (PH-0671)







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## **SDG Narrative**

# HC Case Narrative

Client: TRC Engineering  
Project: Harrison Sub Residency

HC Project: 8101509

Hampton-Clarke (HC) received the following samples on 10/15/18, 10/16/18, 10/17/18, 10/18/18 & 10/23/18:

| <u>Client ID</u> | <u>HC Sample ID</u> | <u>Matrix</u>   | <u>Analysis</u>                          |
|------------------|---------------------|-----------------|------------------------------------------|
| LMW-2-102018 U   | AD07118-001         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| LMW-2-102018 F   | AD07118-002         | Aqueous         | Refer to Cat A deliverables for Analysis |
| PC-1-10 2018 U   | AD07118-003         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| PC-1-10 2018 F   | AD07118-004         | Aqueous         | Refer to Cat A deliverables for Analysis |
| GW-DUP1-102018 U | AD07118-005         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| GW-DUP1-102018 F | AD07118-006         | Aqueous         | Refer to Cat A deliverables for Analysis |
| MW-11-102018 U   | AD07118-007         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| MW-11-102018 F   | AD07118-008         | Aqueous         | Refer to Cat A deliverables for Analysis |
| TB-1             | AD07118-009         | Aqueous         | Refer to Cat A deliverables for Analysis |
| LMW-4-102018 U   | AD07137-001         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| LMW-4-102018 F   | AD07137-002         | Aqueous         | Refer to Cat A deliverables for Analysis |
| PC-2-102018 U    | AD07137-003         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| PC-2-102018 F    | AD07137-004         | Aqueous         | Refer to Cat A deliverables for Analysis |
| PC-3-102018 U    | AD07137-005         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| PC-3-102018 F    | AD07137-006         | Aqueous         | Refer to Cat A deliverables for Analysis |
| TB-2             | AD07137-007         | Aqueous         | Refer to Cat A deliverables for Analysis |
| SW-1-102018      | AD07161-001         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| SD-1-102018      | AD07161-002         | Sediment/Encore | BNA Semi-volatile Compounds (8270D)      |
| SW-2-102018      | AD07161-003         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| SD-2-102018      | AD07161-004         | Sediment/Encore | BNA Semi-volatile Compounds (8270D)      |
| SW-3-102018      | AD07161-005         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| SD-3-102018      | AD07161-006         | Sediment/Encore | BNA Semi-volatile Compounds (8270D)      |
| SW-DUP1-102018   | AD07161-007         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| SW-4-102018      | AD07161-008         | Aqueous         | BNA Semi-volatile Compounds (625.1)      |
| SD-4-102018      | AD07161-009         | Sediment/Encore | BNA Semi-volatile Compounds (8270D)      |
| TB-3             | AD07161-010         | Aqueous         | Refer to Cat A deliverables for Analysis |
| PC-1-102018      | AD07325-001         | Aqueous         | Refer to Cat A deliverables for Analysis |
| MW-11-102018     | AD07325-002         | Aqueous         | Refer to Cat A deliverables for Analysis |
| GW-DUP1-102018   | AD07325-003         | Aqueous         | Refer to Cat A deliverables for Analysis |

*This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.*

Full Data deliverables were required for the BNA Semi-volatile parameters, the rest of the parameters are packaged under the Cat A deliverables, which are amended to the end of this report

## **Base Neutral/Acid Extractable Analysis:**

Samples AD07161-003, 005, 007 and 008 were extracted one day past hold. The samples were originally extracted within hold, but required re-extraction due to surrogates recovering outside QC limits.

The Method Blank Spike for batch 71480 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batches 71471, 71479, 71480, 71497 have recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

Samples AD07161-003 and 008 have one or more surrogates outside QC limits. The sample was re-extracted and re-analyzed confirming recoveries outside QC limits due to matrix interference. The re-analysis is reported. Please refer to the applicable Form 2 for the recoveries.



Samples AD07118-003 and AD07137-001 have one or more surrogates outside QC limits. The sample was re-extracted and re-analyzed confirming recoveries outside QC limits due to matrix interference. The original analysis is reported. Please refer to the applicable Form 2 for the recoveries.

QC samples WMB71496MS and AD07093-001MS has one or more surrogates outside QC limits. Please refer to the applicable Form 2 for the recoveries.

Samples AD07161-005, AD07118-005 and 007, AD07137-005 and QC samples WMB71471, WMB71497, WMB71479MS, WMB71497MS and AD07161-001MSD has a surrogate recovery outside QC limits, but the recovery is greater than 10%, therefore, no corrective action was necessary. Please refer to the applicable Form 2 for the recoveries.

**Wet Chemistry Analysis- (% Moisture only):**

Data conforms to method requirements.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
Robin Cousineau  
Quality Assurance Director

Or

Jean Revolus  
Laboratory Director

11/21/2018  
Date

## **Reporting Limit Definitions**

## HC Reporting Limit Definitions/Data Qualifiers

### REPORTING DEFINITIONS

**DF** = Dilution Factor

**MDL** = Method Detection Limit

**RL\*** = Reporting Limit

**ND** = Not Detected

**RT** = Retention Time

**NA** = Not Applicable

*\*Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

### DATA QUALIFIERS

- A-** Indicates that the Tentatively Identified Compound (TIC) is suspected to be an aldol-condensation product. These compounds are by-products of acetone and methylene chloride used in the extraction process.
- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.
- R-** Retention Time is out.
- Y-** Indicates a contaminant found in the blank at less than 10% of the concentration of a contaminant found in the sample.

## **Data Package Summary Forms**



# HC Report of Analysis

Client: TRC Engineering

HC Project #: 8101509

Project: Harrison Sub Residency

Sample ID: LMW-2-102018 U

Collection Date: 10/15/2018

Lab#: AD07118-001

Receipt Date: 10/15/2018

Matrix: Aqueous

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 15     |

**Cyanide-Water (EPA 335.4)**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether    | 1  | ug/l  | 0.26 | ND     |

Sample ID: LMW-2-102018 U

Lab#: AD07118-001

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |

Sample ID: LMW-2-102018 U

Lab#: AD07118-001

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Carbon tetrachloride      | 1 | ug/l | 1.0  | ND |
| Chlorobenzene             | 1 | ug/l | 1.0  | ND |
| Chloroethane              | 1 | ug/l | 1.0  | ND |
| Chloroform                | 1 | ug/l | 1.0  | ND |
| Chloromethane             | 1 | ug/l | 1.0  | ND |
| cis-1,2-Dichloroethene    | 1 | ug/l | 1.0  | ND |
| cis-1,3-Dichloropropene   | 1 | ug/l | 1.0  | ND |
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: LMW-2-102018 F  
 Lab#: AD07118-002  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/15/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 120    |
| Calcium   | 1  | ug/l  | 1000 | 78000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 170    |
| Magnesium | 1  | ug/l  | 1000 | 28000  |
| Manganese | 1  | ug/l  | 25   | 170    |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3900   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 25000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

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**Alkalinity-Bicarbonate (SM2320B-11)**

| Analyte    | DF | Units      | RL | Result |
|------------|----|------------|----|--------|
| Alkalinity | 1  | mg caco3/l | 10 | 450    |

**Alkalinity-Total (SM2320B-11)**

| Analyte     | DF | Units      | RL | Result |
|-------------|----|------------|----|--------|
| Alkalinity  | 1  | mg caco3/l | 10 | 450    |
| pH Endpoint | 1  | ph         |    | 4.5    |

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 230    |

**Cyanide-Water (EPA 335.4)**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Nitrate-N (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrate | 1  | mg/l  | 1.0 | ND     |

**Nitrite-N (Aqueous) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrite | 1  | mg/l  | 1.0 | ND     |

**p-Alkalinity**

| Analyte      | DF | Units      | RL | Result |
|--------------|----|------------|----|--------|
| p-Alkalinity | 1  | mg caco3/l | 10 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |



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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| Acenaphthene                | 1 | ug/l | 1.0  | ND |
| Acenaphthylene              | 1 | ug/l | 1.0  | ND |
| Acetophenone                | 1 | ug/l | 1.0  | ND |
| Anthracene                  | 1 | ug/l | 1.0  | ND |
| Atrazine                    | 1 | ug/l | 1.0  | ND |
| Benzaldehyde                | 1 | ug/l | 1.0  | ND |
| Benzo[a]anthracene          | 1 | ug/l | 1.0  | ND |
| Benzo[a]pyrene              | 1 | ug/l | 1.0  | ND |
| Benzo[b]fluoranthene        | 1 | ug/l | 1.0  | ND |
| Benzo[g,h,i]perylene        | 1 | ug/l | 1.0  | ND |
| Benzo[k]fluoranthene        | 1 | ug/l | 1.0  | ND |
| bis(2-Chloroethoxy)methane  | 1 | ug/l | 1.0  | ND |
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.25 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.25 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.25 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.0  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

**Sulfate (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Sulfate | 1  | mg/l  | 2.0 | 8.1    |

**Volatile Organics (no search) 624.1**

| Analyte                               | DF | Units | RL  | Result |
|---------------------------------------|----|-------|-----|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0 | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0 | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0 | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0 | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0 | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0 | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0 | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0 | ND     |

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| 1,2-Dibromoethane         | 1 | ug/l | 1.0  | ND |
| 1,2-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,2-Dichloroethane        | 1 | ug/l | 0.50 | ND |
| 1,2-Dichloropropane       | 1 | ug/l | 1.0  | ND |
| 1,3-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,4-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,4-Dioxane               | 1 | ug/l | 50   | ND |
| 2-Butanone                | 1 | ug/l | 1.0  | ND |
| 2-Hexanone                | 1 | ug/l | 1.0  | ND |
| 4-Methyl-2-pentanone      | 1 | ug/l | 1.0  | ND |
| Acetone                   | 1 | ug/l | 5.0  | ND |
| Benzene                   | 1 | ug/l | 0.50 | ND |
| Bromochloromethane        | 1 | ug/l | 1.0  | ND |
| Bromodichloromethane      | 1 | ug/l | 1.0  | ND |
| Bromoform                 | 1 | ug/l | 1.0  | ND |
| Bromomethane              | 1 | ug/l | 1.0  | ND |
| Carbon disulfide          | 1 | ug/l | 1.0  | ND |
| Carbon tetrachloride      | 1 | ug/l | 1.0  | ND |
| Chlorobenzene             | 1 | ug/l | 1.0  | ND |
| Chloroethane              | 1 | ug/l | 1.0  | ND |
| Chloroform                | 1 | ug/l | 1.0  | ND |
| Chloromethane             | 1 | ug/l | 1.0  | ND |
| cis-1,2-Dichloroethene    | 1 | ug/l | 1.0  | ND |
| cis-1,3-Dichloropropene   | 1 | ug/l | 1.0  | ND |
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

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**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | 120    |
| Barium    | 1  | ug/l  | 25   | 140    |
| Calcium   | 1  | ug/l  | 1000 | 170000 |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 240    |
| Magnesium | 1  | ug/l  | 1000 | 27000  |
| Manganese | 1  | ug/l  | 25   | 2000   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 4900   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 100000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

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## Chloride (Water) 300.0

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 220    |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |

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|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |



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Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: GW-DUP1-102018 F  
 Lab#: AD07118-006  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/15/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 130    |
| Calcium   | 1  | ug/l  | 1000 | 170000 |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 230    |
| Magnesium | 1  | ug/l  | 1000 | 26000  |
| Manganese | 1  | ug/l  | 25   | 2000   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 5000   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 100000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: MW-11-102018 U

Lab#: AD07118-007

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

**Alkalinity-Bicarbonate (SM2320B-11)**

| Analyte    | DF | Units      | RL | Result |
|------------|----|------------|----|--------|
| Alkalinity | 1  | mg caco3/l | 10 | 270    |

**Alkalinity-Total (SM2320B-11)**

| Analyte     | DF | Units      | RL | Result |
|-------------|----|------------|----|--------|
| Alkalinity  | 1  | mg caco3/l | 10 | 270    |
| pH Endpoint | 1  | ph         |    | 4.5    |

**BTEX (624.1)**

| Analyte              | DF | Units | RL   | Result |
|----------------------|----|-------|------|--------|
| Benzene              | 1  | ug/l  | 0.50 | ND     |
| Ethylbenzene         | 1  | ug/l  | 1.0  | 17     |
| m&p-Xylenes          | 1  | ug/l  | 1.0  | 2.0    |
| Methyl-t-butyl ether | 1  | ug/l  | 0.50 | ND     |
| o-Xylene             | 1  | ug/l  | 1.0  | ND     |
| Toluene              | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)      | 1  | ug/l  | 1.0  | 2.0    |

**Nitrate-N (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrate | 1  | mg/l  | 1.0 | ND     |

**Nitrite-N (Aqueous) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrite | 1  | mg/l  | 1.0 | ND     |

**p-Alkalinity**

| Analyte      | DF | Units      | RL | Result |
|--------------|----|------------|----|--------|
| p-Alkalinity | 1  | mg caco3/l | 10 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |

Sample ID: MW-11-102018 U

Lab#: AD07118-007

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

|                             |   |      |      |      |
|-----------------------------|---|------|------|------|
| 4-Nitroaniline              | 1 | ug/l | 1.0  | ND   |
| 4-Nitrophenol               | 1 | ug/l | 1.0  | ND   |
| Acenaphthene                | 1 | ug/l | 1.0  | ND   |
| Acenaphthylene              | 1 | ug/l | 1.0  | ND   |
| Acetophenone                | 1 | ug/l | 1.0  | ND   |
| Anthracene                  | 1 | ug/l | 1.0  | ND   |
| Atrazine                    | 1 | ug/l | 1.0  | ND   |
| Benzaldehyde                | 1 | ug/l | 1.0  | ND   |
| Benzo[a]anthracene          | 1 | ug/l | 1.0  | ND   |
| Benzo[a]pyrene              | 1 | ug/l | 1.0  | ND   |
| Benzo[b]fluoranthene        | 1 | ug/l | 1.0  | ND   |
| Benzo[g,h,i]perylene        | 1 | ug/l | 1.0  | ND   |
| Benzo[k]fluoranthene        | 1 | ug/l | 1.0  | ND   |
| bis(2-Chloroethoxy)methane  | 1 | ug/l | 1.0  | ND   |
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.25 | ND   |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND   |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND   |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND   |
| Caprolactam                 | 1 | ug/l | 1.0  | ND   |
| Carbazole                   | 1 | ug/l | 1.0  | ND   |
| Chrysene                    | 1 | ug/l | 1.0  | ND   |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND   |
| Dibenzofuran                | 1 | ug/l | 0.25 | ND   |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND   |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND   |
| Di-n-butylphthalate         | 1 | ug/l | 0.25 | ND   |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND   |
| Fluoranthene                | 1 | ug/l | 1.0  | ND   |
| Fluorene                    | 1 | ug/l | 1.0  | ND   |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND   |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND   |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND   |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND   |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND   |
| Isophorone                  | 1 | ug/l | 1.0  | ND   |
| Naphthalene                 | 1 | ug/l | 0.25 | 0.56 |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND   |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.25 | ND   |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND   |
| Pentachlorophenol           | 1 | ug/l | 5.0  | ND   |
| Phenanthrene                | 1 | ug/l | 1.0  | ND   |
| Phenol                      | 1 | ug/l | 1.0  | ND   |
| Pyrene                      | 1 | ug/l | 1.0  | ND   |

## Sulfate (Water) 300.0

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Sulfate | 1  | mg/l  | 2.0 | 7.5    |

Sample ID: MW-11-102018 F

Lab#: AD07118-008

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

## Metals Pair 200.7

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Iron      | 1  | ug/l  | 150 | 1600   |
| Manganese | 1  | ug/l  | 25  | 1600   |

Sample ID: TB-1

Lab#: AD07118-009

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |



Sample ID: LMW-4-102018 U

Lab#: AD07137-001

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 32     |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |

Sample ID: LMW-4-102018 U

Lab#: AD07137-001

Matrix: Aqueous

Collection Date: 10/16/2018

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|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

Sample ID: LMW-4-102018 U

Lab#: AD07137-001

Matrix: Aqueous

Collection Date: 10/16/2018

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: LMW-4-102018 F  
 Lab#: AD07137-002  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 150    |
| Calcium   | 1  | ug/l  | 1000 | 40000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 60000  |
| Magnesium | 1  | ug/l  | 1000 | 17000  |
| Manganese | 1  | ug/l  | 25   | 9700   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3500   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 29000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | 2.0    |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | 11     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: PC-2-102018 U

Lab#: AD07137-003

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 21     |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-2-102018 U

Lab#: AD07137-003

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-2-102018 U

Lab#: AD07137-003

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |



Sample ID: PC-2-102018 F  
 Lab#: AD07137-004  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 170    |
| Calcium   | 1  | ug/l  | 1000 | 81000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 61000  |
| Magnesium | 1  | ug/l  | 1000 | 19000  |
| Manganese | 1  | ug/l  | 25   | 11000  |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3700   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 39000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | 1.8    |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | 1.6    |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: PC-3-102018 U

Lab#: AD07137-005

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 230    |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-3-102018 U

Lab#: AD07137-005

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-3-102018 U

Lab#: AD07137-005

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: PC-3-102018 F  
 Lab#: AD07137-006  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 160    |
| Calcium   | 1  | ug/l  | 1000 | 74000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 1800   |
| Magnesium | 1  | ug/l  | 1000 | 21000  |
| Manganese | 1  | ug/l  | 25   | 570    |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 7300   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 120000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: TB-2  
 Lab#: AD07137-007  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/16/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

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 Lab#: AD07161-001  
 Matrix: Aqueous

Collection Date: 10/17/2018  
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**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 5.5    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg caco3/l | 6.6 | 150    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 2.5  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 2.5  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.62 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 2.5  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 2.5  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 2.5  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.62 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.62 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 12   | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 2.5  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 2.5  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 2.5  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 2.5  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 2.5  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.62 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 2.5  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.62 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 2.5  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 12   | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 2.5  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 2.5  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.62 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 2.5  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 2.5  | ND     |
| Acenaphthene               | 1  | ug/l  | 2.5  | ND     |
| Acenaphthylene             | 1  | ug/l  | 2.5  | ND     |
| Acetophenone               | 1  | ug/l  | 2.5  | ND     |
| Anthracene                 | 1  | ug/l  | 2.5  | ND     |
| Atrazine                   | 1  | ug/l  | 2.5  | ND     |
| Benzaldehyde               | 1  | ug/l  | 2.5  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 2.5  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 2.5  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 2.5  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 2.5  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 2.5  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 2.5  | ND     |

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.62 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 2.5  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 2.5  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 2.5  | ND |
| Caprolactam                 | 1 | ug/l | 2.5  | ND |
| Carbazole                   | 1 | ug/l | 2.5  | ND |
| Chrysene                    | 1 | ug/l | 2.5  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 2.5  | ND |
| Dibenzofuran                | 1 | ug/l | 0.62 | ND |
| Diethylphthalate            | 1 | ug/l | 2.5  | ND |
| Dimethylphthalate           | 1 | ug/l | 2.5  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.62 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 2.5  | ND |
| Fluoranthene                | 1 | ug/l | 2.5  | ND |
| Fluorene                    | 1 | ug/l | 2.5  | ND |
| Hexachlorobenzene           | 1 | ug/l | 2.5  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 2.5  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 2.5  | ND |
| Hexachloroethane            | 1 | ug/l | 2.5  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 2.5  | ND |
| Isophorone                  | 1 | ug/l | 2.5  | ND |
| Naphthalene                 | 1 | ug/l | 0.62 | ND |
| Nitrobenzene                | 1 | ug/l | 2.5  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.62 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 2.5  | ND |
| Pentachlorophenol           | 1 | ug/l | 12   | ND |
| Phenanthrene                | 1 | ug/l | 2.5  | ND |
| Phenol                      | 1 | ug/l | 2.5  | ND |
| Pyrene                      | 1 | ug/l | 2.5  | ND |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | 390    |
| Barium    | 1  | ug/l  | 50   | ND     |
| Calcium   | 1  | ug/l  | 5000 | 43000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1800   |
| Magnesium | 1  | ug/l  | 5000 | 12000  |
| Manganese | 1  | ug/l  | 40   | 1500   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | ND     |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 9300   |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |



Sample ID: SW-1-102018

Lab#: AD07161-001

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

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 Lab#: AD07161-002  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 36     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 56 | ND     |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.67 | ND     |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.23 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.093 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.093 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.093 | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.093 | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.093 | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.023 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.023 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.46  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.093 | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.093 | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.093 | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.093 | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.093 | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.023 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.093 | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.023 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.093 | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.46  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.093 | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.093 | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.023 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.093 | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.093 | ND     |
| Acenaphthene               | 1  | mg/kg | 0.093 | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.093 | ND     |
| Acetophenone               | 1  | mg/kg | 0.093 | ND     |
| Anthracene                 | 1  | mg/kg | 0.093 | ND     |
| Atrazine                   | 1  | mg/kg | 0.093 | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.093 | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.093 | 0.16   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.093 | 0.21   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.093 | 0.31   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.093 | 0.14   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.093 | 0.10   |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.093 | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.023 | ND     |

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|                               |          |              |              |             |
|-------------------------------|----------|--------------|--------------|-------------|
| bis(2-Chloroisopropyl)ether   | 1        | mg/kg        | 0.093        | ND          |
| bis(2-Ethylhexyl)phthalate    | 1        | mg/kg        | 0.093        | ND          |
| Butylbenzylphthalate          | 1        | mg/kg        | 0.093        | ND          |
| Caprolactam                   | 1        | mg/kg        | 0.093        | ND          |
| Carbazole                     | 1        | mg/kg        | 0.093        | ND          |
| <b>Chrysene</b>               | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.23</b> |
| Dibenzo[a,h]anthracene        | 1        | mg/kg        | 0.093        | ND          |
| Dibenzofuran                  | 1        | mg/kg        | 0.023        | ND          |
| Diethylphthalate              | 1        | mg/kg        | 0.093        | ND          |
| Dimethylphthalate             | 1        | mg/kg        | 0.093        | ND          |
| Di-n-butylphthalate           | 1        | mg/kg        | 0.023        | ND          |
| Di-n-octylphthalate           | 1        | mg/kg        | 0.093        | ND          |
| <b>Fluoranthene</b>           | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.35</b> |
| Fluorene                      | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorobenzene             | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorobutadiene           | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorocyclopentadiene     | 1        | mg/kg        | 0.093        | ND          |
| Hexachloroethane              | 1        | mg/kg        | 0.093        | ND          |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.12</b> |
| Isophorone                    | 1        | mg/kg        | 0.093        | ND          |
| Naphthalene                   | 1        | mg/kg        | 0.023        | ND          |
| Nitrobenzene                  | 1        | mg/kg        | 0.093        | ND          |
| N-Nitroso-di-n-propylamine    | 1        | mg/kg        | 0.023        | ND          |
| N-Nitrosodiphenylamine        | 1        | mg/kg        | 0.093        | ND          |
| Pentachlorophenol             | 1        | mg/kg        | 0.46         | ND          |
| <b>Phenanthrene</b>           | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.16</b> |
| Phenol                        | 1        | mg/kg        | 0.093        | ND          |
| <b>Pyrene</b>                 | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.35</b> |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 560  | 6500   |
| Barium    | 1  | mg/kg | 28   | 330    |
| Calcium   | 1  | mg/kg | 2800 | 5700   |
| Chromium  | 1  | mg/kg | 14   | 19     |
| Cobalt    | 1  | mg/kg | 6.9  | 11     |
| Copper    | 1  | mg/kg | 14   | 15     |
| Iron      | 1  | mg/kg | 560  | 31000  |
| Lead      | 1  | mg/kg | 14   | 21     |
| Magnesium | 1  | mg/kg | 1400 | 2600   |
| Manganese | 10 | mg/kg | 280  | 17000  |
| Nickel    | 1  | mg/kg | 14   | ND     |
| Potassium | 1  | mg/kg | 1400 | 1500   |
| Sodium    | 1  | mg/kg | 690  | ND     |
| Vanadium  | 1  | mg/kg | 28   | ND     |
| Zinc      | 1  | mg/kg | 28   | 69     |

**TAL Metals 6020B**

| Analyte        | DF       | Units        | RL          | Result     |
|----------------|----------|--------------|-------------|------------|
| Antimony       | 1        | mg/kg        | 2.2         | ND         |
| <b>Arsenic</b> | <b>1</b> | <b>mg/kg</b> | <b>0.56</b> | <b>1.9</b> |
| Beryllium      | 1        | mg/kg        | 0.56        | ND         |
| Cadmium        | 1        | mg/kg        | 1.1         | ND         |
| Selenium       | 1        | mg/kg        | 5.6         | ND         |
| Silver         | 1        | mg/kg        | 0.56        | ND         |
| Thallium       | 1        | mg/kg        | 1.1         | ND         |

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 Lab#: AD07161-002  
 Matrix: Sediment/Encore

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## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.982 | mg/kg | 0.0044 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1,2-Trichloroethane                 | 0.982 | mg/kg | 0.0045 | ND     |
| 1,1-Dichloroethane                    | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1-Dichloroethene                    | 0.982 | mg/kg | 0.0027 | ND     |
| 1,2,3-Trichlorobenzene                | 0.982 | mg/kg | 0.0034 | ND     |
| 1,2,4-Trichlorobenzene                | 0.982 | mg/kg | 0.0044 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.982 | mg/kg | 0.0045 | ND     |
| 1,2-Dibromoethane                     | 0.982 | mg/kg | 0.0027 | ND     |
| 1,2-Dichlorobenzene                   | 0.982 | mg/kg | 0.0053 | ND     |
| 1,2-Dichloroethane                    | 0.982 | mg/kg | 0.0042 | ND     |
| 1,2-Dichloropropane                   | 0.982 | mg/kg | 0.0036 | ND     |
| 1,3-Dichlorobenzene                   | 0.982 | mg/kg | 0.0041 | ND     |
| 1,4-Dichlorobenzene                   | 0.982 | mg/kg | 0.0030 | ND     |
| 1,4-Dioxane                           | 0.982 | mg/kg | 0.21   | ND     |
| 2-Butanone                            | 0.982 | mg/kg | 0.0054 | ND     |
| 2-Hexanone                            | 0.982 | mg/kg | 0.0049 | ND     |
| 4-Methyl-2-pentanone                  | 0.982 | mg/kg | 0.0054 | ND     |
| Acetone                               | 0.982 | mg/kg | 0.027  | ND     |
| Benzene                               | 0.982 | mg/kg | 0.0027 | ND     |
| Bromochloromethane                    | 0.982 | mg/kg | 0.0047 | ND     |
| Bromodichloromethane                  | 0.982 | mg/kg | 0.0033 | ND     |
| Bromoform                             | 0.982 | mg/kg | 0.0048 | ND     |
| Bromomethane                          | 0.982 | mg/kg | 0.0035 | ND     |
| Carbon disulfide                      | 0.982 | mg/kg | 0.0027 | ND     |
| Carbon tetrachloride                  | 0.982 | mg/kg | 0.0027 | ND     |
| Chlorobenzene                         | 0.982 | mg/kg | 0.0027 | ND     |
| Chloroethane                          | 0.982 | mg/kg | 0.0051 | ND     |
| Chloroform                            | 0.982 | mg/kg | 0.0044 | ND     |
| Chloromethane                         | 0.982 | mg/kg | 0.0027 | ND     |
| cis-1,2-Dichloroethene                | 0.982 | mg/kg | 0.0029 | ND     |
| cis-1,3-Dichloropropene               | 0.982 | mg/kg | 0.0027 | ND     |
| Cyclohexane                           | 0.982 | mg/kg | 0.0027 | ND     |
| Dibromochloromethane                  | 0.982 | mg/kg | 0.0033 | ND     |
| Dichlorodifluoromethane               | 0.982 | mg/kg | 0.0027 | ND     |
| Ethylbenzene                          | 0.982 | mg/kg | 0.0027 | ND     |
| Isopropylbenzene                      | 0.982 | mg/kg | 0.0027 | ND     |
| m&p-Xylenes                           | 0.982 | mg/kg | 0.0027 | ND     |
| Methyl Acetate                        | 0.982 | mg/kg | 0.0046 | ND     |
| Methylcyclohexane                     | 0.982 | mg/kg | 0.0027 | ND     |
| Methylene chloride                    | 0.982 | mg/kg | 0.0049 | ND     |
| Methyl-t-butyl ether                  | 0.982 | mg/kg | 0.0027 | ND     |
| o-Xylene                              | 0.982 | mg/kg | 0.0027 | ND     |
| Styrene                               | 0.982 | mg/kg | 0.0027 | ND     |
| Tetrachloroethene                     | 0.982 | mg/kg | 0.0030 | ND     |
| Toluene                               | 0.982 | mg/kg | 0.0027 | ND     |
| trans-1,2-Dichloroethene              | 0.982 | mg/kg | 0.0028 | ND     |
| trans-1,3-Dichloropropene             | 0.982 | mg/kg | 0.0043 | ND     |
| Trichloroethene                       | 0.982 | mg/kg | 0.0032 | ND     |
| Trichlorofluoromethane                | 0.982 | mg/kg | 0.0027 | ND     |
| Vinyl chloride                        | 0.982 | mg/kg | 0.0027 | ND     |
| Xylenes (Total)                       | 0.982 | mg/kg | 0.0027 | ND     |

Sample ID: SW-2-102018

Lab#: AD07161-003

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 7.8    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg cac03/l | 6.6 | 160    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 0.58 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 0.58 | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.14 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 0.58 | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 2.9  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 0.58 | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.14 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.14 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 0.58 | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 2.9  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 0.58 | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 0.58 | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.14 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 0.58 | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| Acenaphthene               | 1  | ug/l  | 0.58 | ND     |
| Acenaphthylene             | 1  | ug/l  | 0.58 | ND     |
| Acetophenone               | 1  | ug/l  | 0.58 | ND     |
| Anthracene                 | 1  | ug/l  | 0.58 | ND     |
| Atrazine                   | 1  | ug/l  | 0.58 | ND     |
| Benzaldehyde               | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 0.58 | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 0.58 | ND     |

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Matrix: Aqueous

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.14 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 0.58 | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 0.58 | ND |
| Butylbenzylphthalate        | 1 | ug/l | 0.58 | ND |
| Caprolactam                 | 1 | ug/l | 0.58 | ND |
| Carbazole                   | 1 | ug/l | 0.58 | ND |
| Chrysene                    | 1 | ug/l | 0.58 | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 0.58 | ND |
| Dibenzofuran                | 1 | ug/l | 0.14 | ND |
| Diethylphthalate            | 1 | ug/l | 0.58 | ND |
| Dimethylphthalate           | 1 | ug/l | 0.58 | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.14 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 0.58 | ND |
| Fluoranthene                | 1 | ug/l | 0.58 | ND |
| Fluorene                    | 1 | ug/l | 0.58 | ND |
| Hexachlorobenzene           | 1 | ug/l | 0.58 | ND |
| Hexachlorobutadiene         | 1 | ug/l | 0.58 | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 0.58 | ND |
| Hexachloroethane            | 1 | ug/l | 0.58 | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 0.58 | ND |
| Isophorone                  | 1 | ug/l | 0.58 | ND |
| Naphthalene                 | 1 | ug/l | 0.14 | ND |
| Nitrobenzene                | 1 | ug/l | 0.58 | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.14 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 0.58 | ND |
| Pentachlorophenol           | 1 | ug/l | 2.9  | ND |
| Phenanthrene                | 1 | ug/l | 0.58 | ND |
| Phenol                      | 1 | ug/l | 0.58 | ND |
| Pyrene                      | 1 | ug/l | 0.58 | ND |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | ND     |
| Calcium   | 1  | ug/l  | 5000 | 44000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 330    |
| Magnesium | 1  | ug/l  | 5000 | 12000  |
| Manganese | 1  | ug/l  | 40   | 280    |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | ND     |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 14000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-2-102018

Lab#: AD07161-003

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-2-102018  
 Lab#: AD07161-004  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 16     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/kg | 120 | ND     |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Cyanide | 1  | mg/kg | 1.5 | 1.9    |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.52 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.21  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.21  | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.21  | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.21  | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.21  | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.052 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.052 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 1.0   | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.21  | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.21  | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.21  | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.21  | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.21  | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.052 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.21  | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.052 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.21  | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 1.0   | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.21  | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.21  | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.052 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.21  | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.21  | ND     |
| Acenaphthene               | 1  | mg/kg | 0.21  | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.21  | ND     |
| Acetophenone               | 1  | mg/kg | 0.21  | ND     |
| Anthracene                 | 1  | mg/kg | 0.21  | ND     |
| Atrazine                   | 1  | mg/kg | 0.21  | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.21  | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.21  | 0.29   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.21  | 0.36   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.21  | 0.58   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.21  | 0.30   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.21  | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.21  | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.052 | ND     |



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Matrix: Sediment/Encore

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|                             |   |       |       |      |
|-----------------------------|---|-------|-------|------|
| bis(2-Chloroisopropyl)ether | 1 | mg/kg | 0.21  | ND   |
| bis(2-Ethylhexyl)phthalate  | 1 | mg/kg | 0.21  | ND   |
| Butylbenzylphthalate        | 1 | mg/kg | 0.21  | ND   |
| Caprolactam                 | 1 | mg/kg | 0.21  | ND   |
| Carbazole                   | 1 | mg/kg | 0.21  | ND   |
| Chrysene                    | 1 | mg/kg | 0.21  | 0.41 |
| Dibenzo[a,h]anthracene      | 1 | mg/kg | 0.21  | ND   |
| Dibenzofuran                | 1 | mg/kg | 0.052 | ND   |
| Diethylphthalate            | 1 | mg/kg | 0.21  | ND   |
| Dimethylphthalate           | 1 | mg/kg | 0.21  | ND   |
| Di-n-butylphthalate         | 1 | mg/kg | 0.052 | ND   |
| Di-n-octylphthalate         | 1 | mg/kg | 0.21  | ND   |
| Fluoranthene                | 1 | mg/kg | 0.21  | 0.50 |
| Fluorene                    | 1 | mg/kg | 0.21  | ND   |
| Hexachlorobenzene           | 1 | mg/kg | 0.21  | ND   |
| Hexachlorobutadiene         | 1 | mg/kg | 0.21  | ND   |
| Hexachlorocyclopentadiene   | 1 | mg/kg | 0.21  | ND   |
| Hexachloroethane            | 1 | mg/kg | 0.21  | ND   |
| Indeno[1,2,3-cd]pyrene      | 1 | mg/kg | 0.21  | 0.22 |
| Isophorone                  | 1 | mg/kg | 0.21  | ND   |
| Naphthalene                 | 1 | mg/kg | 0.052 | ND   |
| Nitrobenzene                | 1 | mg/kg | 0.21  | ND   |
| N-Nitroso-di-n-propylamine  | 1 | mg/kg | 0.052 | ND   |
| N-Nitrosodiphenylamine      | 1 | mg/kg | 0.21  | ND   |
| Pentachlorophenol           | 1 | mg/kg | 1.0   | ND   |
| Phenanthrene                | 1 | mg/kg | 0.21  | ND   |
| Phenol                      | 1 | mg/kg | 0.21  | ND   |
| Pyrene                      | 1 | mg/kg | 0.21  | 0.56 |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 1200 | 8900   |
| Barium    | 1  | mg/kg | 62   | 420    |
| Calcium   | 1  | mg/kg | 6200 | 13000  |
| Chromium  | 1  | mg/kg | 31   | ND     |
| Cobalt    | 1  | mg/kg | 16   | ND     |
| Copper    | 1  | mg/kg | 31   | 45     |
| Iron      | 1  | mg/kg | 1200 | 34000  |
| Lead      | 1  | mg/kg | 31   | 51     |
| Magnesium | 1  | mg/kg | 3100 | 5200   |
| Manganese | 4  | mg/kg | 250  | 18000  |
| Nickel    | 1  | mg/kg | 31   | ND     |
| Potassium | 1  | mg/kg | 3100 | ND     |
| Sodium    | 1  | mg/kg | 1600 | ND     |
| Vanadium  | 1  | mg/kg | 62   | ND     |
| Zinc      | 1  | mg/kg | 62   | 260    |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | mg/kg | 5.0 | ND     |
| Arsenic   | 1  | mg/kg | 1.2 | 5.5    |
| Beryllium | 1  | mg/kg | 1.2 | ND     |
| Cadmium   | 1  | mg/kg | 2.5 | ND     |
| Selenium  | 1  | mg/kg | 13  | ND     |
| Silver    | 1  | mg/kg | 1.2 | ND     |
| Thallium  | 1  | mg/kg | 2.5 | ND     |

Sample ID: SD-2-102018  
 Lab#: AD07161-004  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
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## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.818 | mg/kg | 0.0083 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1,2-Trichloroethane                 | 0.818 | mg/kg | 0.0085 | ND     |
| 1,1-Dichloroethane                    | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1-Dichloroethene                    | 0.818 | mg/kg | 0.0051 | ND     |
| 1,2,3-Trichlorobenzene                | 0.818 | mg/kg | 0.0063 | ND     |
| 1,2,4-Trichlorobenzene                | 0.818 | mg/kg | 0.0082 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.818 | mg/kg | 0.0084 | ND     |
| 1,2-Dibromoethane                     | 0.818 | mg/kg | 0.0051 | ND     |
| 1,2-Dichlorobenzene                   | 0.818 | mg/kg | 0.0099 | ND     |
| 1,2-Dichloroethane                    | 0.818 | mg/kg | 0.0079 | ND     |
| 1,2-Dichloropropane                   | 0.818 | mg/kg | 0.0068 | ND     |
| 1,3-Dichlorobenzene                   | 0.818 | mg/kg | 0.0077 | ND     |
| 1,4-Dichlorobenzene                   | 0.818 | mg/kg | 0.0057 | ND     |
| 1,4-Dioxane                           | 0.818 | mg/kg | 0.39   | ND     |
| 2-Butanone                            | 0.818 | mg/kg | 0.010  | ND     |
| 2-Hexanone                            | 0.818 | mg/kg | 0.0093 | ND     |
| 4-Methyl-2-pentanone                  | 0.818 | mg/kg | 0.010  | ND     |
| Acetone                               | 0.818 | mg/kg | 0.051  | ND     |
| Benzene                               | 0.818 | mg/kg | 0.0051 | ND     |
| Bromochloromethane                    | 0.818 | mg/kg | 0.0087 | ND     |
| Bromodichloromethane                  | 0.818 | mg/kg | 0.0061 | ND     |
| Bromoform                             | 0.818 | mg/kg | 0.0090 | ND     |
| Bromomethane                          | 0.818 | mg/kg | 0.0066 | ND     |
| Carbon disulfide                      | 0.818 | mg/kg | 0.0051 | ND     |
| Carbon tetrachloride                  | 0.818 | mg/kg | 0.0051 | ND     |
| Chlorobenzene                         | 0.818 | mg/kg | 0.0051 | ND     |
| Chloroethane                          | 0.818 | mg/kg | 0.0095 | ND     |
| Chloroform                            | 0.818 | mg/kg | 0.0083 | ND     |
| Chloromethane                         | 0.818 | mg/kg | 0.0051 | ND     |
| cis-1,2-Dichloroethene                | 0.818 | mg/kg | 0.0055 | ND     |
| cis-1,3-Dichloropropene               | 0.818 | mg/kg | 0.0051 | ND     |
| Cyclohexane                           | 0.818 | mg/kg | 0.0051 | ND     |
| Dibromochloromethane                  | 0.818 | mg/kg | 0.0061 | ND     |
| Dichlorodifluoromethane               | 0.818 | mg/kg | 0.0051 | ND     |
| Ethylbenzene                          | 0.818 | mg/kg | 0.0051 | ND     |
| Isopropylbenzene                      | 0.818 | mg/kg | 0.0051 | ND     |
| m&p-Xylenes                           | 0.818 | mg/kg | 0.0051 | ND     |
| Methyl Acetate                        | 0.818 | mg/kg | 0.0087 | ND     |
| Methylcyclohexane                     | 0.818 | mg/kg | 0.0051 | ND     |
| Methylene chloride                    | 0.818 | mg/kg | 0.0092 | ND     |
| Methyl-t-butyl ether                  | 0.818 | mg/kg | 0.0051 | ND     |
| o-Xylene                              | 0.818 | mg/kg | 0.0051 | ND     |
| Styrene                               | 0.818 | mg/kg | 0.0051 | ND     |
| Tetrachloroethene                     | 0.818 | mg/kg | 0.0056 | ND     |
| Toluene                               | 0.818 | mg/kg | 0.0051 | ND     |
| trans-1,2-Dichloroethene              | 0.818 | mg/kg | 0.0052 | ND     |
| trans-1,3-Dichloropropene             | 0.818 | mg/kg | 0.0081 | ND     |
| Trichloroethene                       | 0.818 | mg/kg | 0.0060 | ND     |
| Trichlorofluoromethane                | 0.818 | mg/kg | 0.0051 | ND     |
| Vinyl chloride                        | 0.818 | mg/kg | 0.0051 | ND     |
| Xylenes (Total)                       | 0.818 | mg/kg | 0.0051 | ND     |

Sample ID: SW-3-102018

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Matrix: Aqueous

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 5  | mg/l  | 10 | 170    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg cac03/l | 6.6 | 500    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 0.58 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 0.58 | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.14 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 0.58 | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 2.9  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 0.58 | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.14 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.14 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 0.58 | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 2.9  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 0.58 | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 0.58 | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.14 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 0.58 | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| Acenaphthene               | 1  | ug/l  | 0.58 | ND     |
| Acenaphthylene             | 1  | ug/l  | 0.58 | ND     |
| Acetophenone               | 1  | ug/l  | 0.58 | ND     |
| Anthracene                 | 1  | ug/l  | 0.58 | ND     |
| Atrazine                   | 1  | ug/l  | 0.58 | ND     |
| Benzaldehyde               | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 0.58 | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 0.58 | ND     |

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Lab#: AD07161-005

Matrix: Aqueous

Collection Date: 10/17/2018

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.14 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 0.58 | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 0.58 | ND |
| Butylbenzylphthalate        | 1 | ug/l | 0.58 | ND |
| Caprolactam                 | 1 | ug/l | 0.58 | ND |
| Carbazole                   | 1 | ug/l | 0.58 | ND |
| Chrysene                    | 1 | ug/l | 0.58 | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 0.58 | ND |
| Dibenzofuran                | 1 | ug/l | 0.14 | ND |
| Diethylphthalate            | 1 | ug/l | 0.58 | ND |
| Dimethylphthalate           | 1 | ug/l | 0.58 | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.14 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 0.58 | ND |
| Fluoranthene                | 1 | ug/l | 0.58 | ND |
| Fluorene                    | 1 | ug/l | 0.58 | ND |
| Hexachlorobenzene           | 1 | ug/l | 0.58 | ND |
| Hexachlorobutadiene         | 1 | ug/l | 0.58 | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 0.58 | ND |
| Hexachloroethane            | 1 | ug/l | 0.58 | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 0.58 | ND |
| Isophorone                  | 1 | ug/l | 0.58 | ND |
| Naphthalene                 | 1 | ug/l | 0.14 | ND |
| Nitrobenzene                | 1 | ug/l | 0.58 | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.14 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 0.58 | ND |
| Pentachlorophenol           | 1 | ug/l | 2.9  | ND |
| Phenanthrene                | 1 | ug/l | 0.58 | ND |
| Phenol                      | 1 | ug/l | 0.58 | ND |
| Pyrene                      | 1 | ug/l | 0.58 | ND |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | 92     |
| Calcium   | 1  | ug/l  | 5000 | 170000 |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1000   |
| Magnesium | 1  | ug/l  | 5000 | 24000  |
| Manganese | 1  | ug/l  | 40   | 980    |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 8100   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 99000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-3-102018

Lab#: AD07161-005

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-3-102018  
 Lab#: AD07161-006  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
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**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 55     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 36 | 200    |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.44 | 1.3    |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.15 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.061 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.061 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.061 | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.061 | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.061 | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.015 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.015 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.30  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.061 | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.061 | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.061 | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.061 | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.061 | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.015 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.061 | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.015 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.061 | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.30  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.061 | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.061 | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.015 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.061 | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.061 | ND     |
| Acenaphthene               | 1  | mg/kg | 0.061 | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.061 | ND     |
| Acetophenone               | 1  | mg/kg | 0.061 | ND     |
| Anthracene                 | 1  | mg/kg | 0.061 | ND     |
| Atrazine                   | 1  | mg/kg | 0.061 | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.061 | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.061 | 0.075  |
| Benzo[a]pyrene             | 1  | mg/kg | 0.061 | 0.075  |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.061 | 0.11   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.061 | ND     |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.061 | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.061 | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.015 | ND     |

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Collection Date: 10/17/2018  
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|                             |          |              |              |              |
|-----------------------------|----------|--------------|--------------|--------------|
| bis(2-Chloroisopropyl)ether | 1        | mg/kg        | 0.061        | ND           |
| bis(2-Ethylhexyl)phthalate  | 1        | mg/kg        | 0.061        | ND           |
| Butylbenzylphthalate        | 1        | mg/kg        | 0.061        | ND           |
| Caprolactam                 | 1        | mg/kg        | 0.061        | ND           |
| Carbazole                   | 1        | mg/kg        | 0.061        | ND           |
| <b>Chrysene</b>             | <b>1</b> | <b>mg/kg</b> | <b>0.061</b> | <b>0.071</b> |
| Dibenzo[a,h]anthracene      | 1        | mg/kg        | 0.061        | ND           |
| Dibenzofuran                | 1        | mg/kg        | 0.015        | ND           |
| Diethylphthalate            | 1        | mg/kg        | 0.061        | ND           |
| Dimethylphthalate           | 1        | mg/kg        | 0.061        | ND           |
| Di-n-butylphthalate         | 1        | mg/kg        | 0.015        | ND           |
| Di-n-octylphthalate         | 1        | mg/kg        | 0.061        | ND           |
| <b>Fluoranthene</b>         | <b>1</b> | <b>mg/kg</b> | <b>0.061</b> | <b>0.13</b>  |
| Fluorene                    | 1        | mg/kg        | 0.061        | ND           |
| Hexachlorobenzene           | 1        | mg/kg        | 0.061        | ND           |
| Hexachlorobutadiene         | 1        | mg/kg        | 0.061        | ND           |
| Hexachlorocyclopentadiene   | 1        | mg/kg        | 0.061        | ND           |
| Hexachloroethane            | 1        | mg/kg        | 0.061        | ND           |
| Indeno[1,2,3-cd]pyrene      | 1        | mg/kg        | 0.061        | ND           |
| Isophorone                  | 1        | mg/kg        | 0.061        | ND           |
| Naphthalene                 | 1        | mg/kg        | 0.015        | ND           |
| Nitrobenzene                | 1        | mg/kg        | 0.061        | ND           |
| N-Nitroso-di-n-propylamine  | 1        | mg/kg        | 0.015        | ND           |
| N-Nitrosodiphenylamine      | 1        | mg/kg        | 0.061        | ND           |
| Pentachlorophenol           | 1        | mg/kg        | 0.30         | ND           |
| Phenanthrene                | 1        | mg/kg        | 0.061        | ND           |
| Phenol                      | 1        | mg/kg        | 0.061        | ND           |
| <b>Pyrene</b>               | <b>1</b> | <b>mg/kg</b> | <b>0.061</b> | <b>0.13</b>  |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 360  | 27000  |
| Barium    | 1  | mg/kg | 18   | 160    |
| Calcium   | 1  | mg/kg | 1800 | 49000  |
| Chromium  | 1  | mg/kg | 9.1  | 42     |
| Cobalt    | 1  | mg/kg | 4.5  | 15     |
| Copper    | 1  | mg/kg | 9.1  | 45     |
| Iron      | 1  | mg/kg | 360  | 35000  |
| Lead      | 1  | mg/kg | 9.1  | 150    |
| Magnesium | 1  | mg/kg | 910  | 30000  |
| Manganese | 1  | mg/kg | 18   | 430    |
| Nickel    | 1  | mg/kg | 9.1  | 35     |
| Potassium | 1  | mg/kg | 910  | 2800   |
| Sodium    | 1  | mg/kg | 450  | 650    |
| Vanadium  | 1  | mg/kg | 18   | 68     |
| Zinc      | 1  | mg/kg | 18   | 200    |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | mg/kg | 1.5  | ND     |
| Arsenic   | 1  | mg/kg | 0.36 | 4.2    |
| Beryllium | 1  | mg/kg | 0.36 | 0.56   |
| Cadmium   | 1  | mg/kg | 0.73 | 1.2    |
| Selenium  | 1  | mg/kg | 3.6  | ND     |
| Silver    | 1  | mg/kg | 0.36 | ND     |
| Thallium  | 1  | mg/kg | 0.73 | ND     |

Sample ID: SD-3-102018  
 Lab#: AD07161-006  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.826 | mg/kg | 0.0024 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1,2-Trichloroethane                 | 0.826 | mg/kg | 0.0025 | ND     |
| 1,1-Dichloroethane                    | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1-Dichloroethene                    | 0.826 | mg/kg | 0.0015 | ND     |
| 1,2,3-Trichlorobenzene                | 0.826 | mg/kg | 0.0019 | ND     |
| 1,2,4-Trichlorobenzene                | 0.826 | mg/kg | 0.0024 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.826 | mg/kg | 0.0025 | ND     |
| 1,2-Dibromoethane                     | 0.826 | mg/kg | 0.0015 | ND     |
| 1,2-Dichlorobenzene                   | 0.826 | mg/kg | 0.0029 | ND     |
| 1,2-Dichloroethane                    | 0.826 | mg/kg | 0.0023 | ND     |
| 1,2-Dichloropropane                   | 0.826 | mg/kg | 0.0020 | ND     |
| 1,3-Dichlorobenzene                   | 0.826 | mg/kg | 0.0023 | ND     |
| 1,4-Dichlorobenzene                   | 0.826 | mg/kg | 0.0017 | ND     |
| 1,4-Dioxane                           | 0.826 | mg/kg | 0.12   | ND     |
| 2-Butanone                            | 0.826 | mg/kg | 0.0030 | ND     |
| 2-Hexanone                            | 0.826 | mg/kg | 0.0027 | ND     |
| 4-Methyl-2-pentanone                  | 0.826 | mg/kg | 0.0030 | ND     |
| Acetone                               | 0.826 | mg/kg | 0.015  | ND     |
| Benzene                               | 0.826 | mg/kg | 0.0015 | ND     |
| Bromochloromethane                    | 0.826 | mg/kg | 0.0026 | ND     |
| Bromodichloromethane                  | 0.826 | mg/kg | 0.0018 | ND     |
| Bromoform                             | 0.826 | mg/kg | 0.0026 | ND     |
| Bromomethane                          | 0.826 | mg/kg | 0.0020 | ND     |
| Carbon disulfide                      | 0.826 | mg/kg | 0.0015 | ND     |
| Carbon tetrachloride                  | 0.826 | mg/kg | 0.0015 | ND     |
| Chlorobenzene                         | 0.826 | mg/kg | 0.0015 | ND     |
| Chloroethane                          | 0.826 | mg/kg | 0.0028 | ND     |
| Chloroform                            | 0.826 | mg/kg | 0.0024 | ND     |
| Chloromethane                         | 0.826 | mg/kg | 0.0015 | ND     |
| cis-1,2-Dichloroethene                | 0.826 | mg/kg | 0.0016 | ND     |
| cis-1,3-Dichloropropene               | 0.826 | mg/kg | 0.0015 | ND     |
| Cyclohexane                           | 0.826 | mg/kg | 0.0015 | ND     |
| Dibromochloromethane                  | 0.826 | mg/kg | 0.0018 | ND     |
| Dichlorodifluoromethane               | 0.826 | mg/kg | 0.0015 | ND     |
| Ethylbenzene                          | 0.826 | mg/kg | 0.0015 | ND     |
| Isopropylbenzene                      | 0.826 | mg/kg | 0.0015 | ND     |
| m&p-Xylenes                           | 0.826 | mg/kg | 0.0015 | ND     |
| Methyl Acetate                        | 0.826 | mg/kg | 0.0026 | ND     |
| Methylcyclohexane                     | 0.826 | mg/kg | 0.0015 | ND     |
| Methylene chloride                    | 0.826 | mg/kg | 0.0027 | ND     |
| Methyl-t-butyl ether                  | 0.826 | mg/kg | 0.0015 | ND     |
| o-Xylene                              | 0.826 | mg/kg | 0.0015 | ND     |
| Styrene                               | 0.826 | mg/kg | 0.0015 | ND     |
| Tetrachloroethene                     | 0.826 | mg/kg | 0.0016 | ND     |
| Toluene                               | 0.826 | mg/kg | 0.0015 | ND     |
| trans-1,2-Dichloroethene              | 0.826 | mg/kg | 0.0015 | ND     |
| trans-1,3-Dichloropropene             | 0.826 | mg/kg | 0.0024 | ND     |
| Trichloroethene                       | 0.826 | mg/kg | 0.0018 | ND     |
| Trichlorofluoromethane                | 0.826 | mg/kg | 0.0015 | ND     |
| Vinyl chloride                        | 0.826 | mg/kg | 0.0015 | ND     |
| Xylenes (Total)                       | 0.826 | mg/kg | 0.0015 | ND     |



Sample ID: SW-DUP1-102018

Lab#: AD07161-007

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 5  | mg/l  | 10 | 150    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg caco3/l | 6.6 | 500    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |

Sample ID: SW-DUP1-102018

Lab#: AD07161-007

Matrix: Aqueous

Collection Date: 10/17/2018

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.26 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | 110    |
| Calcium   | 1  | ug/l  | 5000 | 190000 |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1200   |
| Magnesium | 1  | ug/l  | 5000 | 27000  |
| Manganese | 1  | ug/l  | 40   | 1100   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 9500   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 120000 |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-DUP1-102018

Lab#: AD07161-007

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SW-4-102018

Lab#: AD07161-008

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 41     |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg caco3/l | 6.6 | 310    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |

Sample ID: SW-4-102018

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.26 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | 9000   |
| Barium    | 1  | ug/l  | 50   | 160    |
| Calcium   | 1  | ug/l  | 5000 | 76000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 20000  |
| Magnesium | 1  | ug/l  | 5000 | 23000  |
| Manganese | 1  | ug/l  | 40   | 4600   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 6200   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 31000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | 110    |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | 2.6    |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | 5.8    |
| Lead      | 1  | ug/l  | 3.0 | 24     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-4-102018

Lab#: AD07161-008

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-4-102018  
 Lab#: AD07161-009  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 30     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 67 | 100    |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.80 | ND     |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.28 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.11  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.11  | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.11  | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.11  | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.11  | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.028 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.028 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.56  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.11  | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.11  | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.11  | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.11  | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.11  | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.028 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.11  | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.028 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.11  | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.56  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.11  | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.11  | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.028 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.11  | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.11  | ND     |
| Acenaphthene               | 1  | mg/kg | 0.11  | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.11  | ND     |
| Acetophenone               | 1  | mg/kg | 0.11  | ND     |
| Anthracene                 | 1  | mg/kg | 0.11  | ND     |
| Alrazine                   | 1  | mg/kg | 0.11  | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.11  | 0.60   |
| Benzo[a]anthracene         | 1  | mg/kg | 0.11  | 0.14   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.11  | 0.17   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.11  | 0.26   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.11  | 0.14   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.11  | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.11  | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.028 | ND     |

Sample ID: SD-4-102018

Lab#: AD07161-009

Matrix: Sediment/Encore

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

|                             |   |       |       |      |
|-----------------------------|---|-------|-------|------|
| bis(2-Chloroisopropyl)ether | 1 | mg/kg | 0.11  | ND   |
| bis(2-Ethylhexyl)phthalate  | 1 | mg/kg | 0.11  | ND   |
| Butylbenzylphthalate        | 1 | mg/kg | 0.11  | ND   |
| Caprolactam                 | 1 | mg/kg | 0.11  | ND   |
| Carbazole                   | 1 | mg/kg | 0.11  | ND   |
| <b>Chrysene</b>             | 1 | mg/kg | 0.11  | 0.18 |
| Dibenzo[a,h]anthracene      | 1 | mg/kg | 0.11  | ND   |
| Dibenzofuran                | 1 | mg/kg | 0.028 | ND   |
| Diethylphthalate            | 1 | mg/kg | 0.11  | ND   |
| Dimethylphthalate           | 1 | mg/kg | 0.11  | ND   |
| Di-n-butylphthalate         | 1 | mg/kg | 0.028 | ND   |
| Di-n-octylphthalate         | 1 | mg/kg | 0.11  | ND   |
| <b>Fluoranthene</b>         | 1 | mg/kg | 0.11  | 0.27 |
| Fluorene                    | 1 | mg/kg | 0.11  | ND   |
| Hexachlorobenzene           | 1 | mg/kg | 0.11  | ND   |
| Hexachlorobutadiene         | 1 | mg/kg | 0.11  | ND   |
| Hexachlorocyclopentadiene   | 1 | mg/kg | 0.11  | ND   |
| Hexachloroethane            | 1 | mg/kg | 0.11  | ND   |
| Indeno[1,2,3-cd]pyrene      | 1 | mg/kg | 0.11  | ND   |
| Isophorone                  | 1 | mg/kg | 0.11  | ND   |
| Naphthalene                 | 1 | mg/kg | 0.028 | ND   |
| Nitrobenzene                | 1 | mg/kg | 0.11  | ND   |
| N-Nitroso-di-n-propylamine  | 1 | mg/kg | 0.028 | ND   |
| N-Nitrosodiphenylamine      | 1 | mg/kg | 0.11  | ND   |
| Pentachlorophenol           | 1 | mg/kg | 0.56  | ND   |
| <b>Phenanthrene</b>         | 1 | mg/kg | 0.11  | 0.12 |
| Phenol                      | 1 | mg/kg | 0.11  | ND   |
| <b>Pyrene</b>               | 1 | mg/kg | 0.11  | 0.27 |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 670  | 16000  |
| Barium    | 1  | mg/kg | 33   | 210    |
| Calcium   | 1  | mg/kg | 3300 | 10000  |
| Chromium  | 1  | mg/kg | 17   | 40     |
| Cobalt    | 1  | mg/kg | 8.3  | 13     |
| Copper    | 1  | mg/kg | 17   | 45     |
| Iron      | 1  | mg/kg | 670  | 44000  |
| Lead      | 1  | mg/kg | 17   | 73     |
| Magnesium | 1  | mg/kg | 1700 | 7300   |
| Manganese | 1  | mg/kg | 33   | 1300   |
| Nickel    | 1  | mg/kg | 17   | 30     |
| Potassium | 1  | mg/kg | 1700 | 3400   |
| Sodium    | 1  | mg/kg | 830  | ND     |
| Vanadium  | 1  | mg/kg | 33   | 52     |
| Zinc      | 1  | mg/kg | 33   | 260    |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | mg/kg | 2.7  | ND     |
| Arsenic   | 1  | mg/kg | 0.67 | 4.5    |
| Beryllium | 1  | mg/kg | 0.67 | ND     |
| Cadmium   | 1  | mg/kg | 1.3  | 1.9    |
| Selenium  | 1  | mg/kg | 6.7  | ND     |
| Silver    | 1  | mg/kg | 0.67 | ND     |
| Thallium  | 1  | mg/kg | 1.3  | ND     |



Sample ID: SD-4-102018  
 Lab#: AD07161-009  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

## Volatile Organics (no search) 8260

| Analyte                               | DF   | Units | RL     | Result |
|---------------------------------------|------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1,2,2-Tetrachloroethane             | 1.72 | mg/kg | 0.0094 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1,2-Trichloroethane                 | 1.72 | mg/kg | 0.0095 | ND     |
| 1,1-Dichloroethane                    | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1-Dichloroethene                    | 1.72 | mg/kg | 0.0057 | ND     |
| 1,2,3-Trichlorobenzene                | 1.72 | mg/kg | 0.0071 | ND     |
| 1,2,4-Trichlorobenzene                | 1.72 | mg/kg | 0.0093 | ND     |
| 1,2-Dibromo-3-chloropropane           | 1.72 | mg/kg | 0.0094 | ND     |
| 1,2-Dibromoethane                     | 1.72 | mg/kg | 0.0057 | ND     |
| 1,2-Dichlorobenzene                   | 1.72 | mg/kg | 0.011  | ND     |
| 1,2-Dichloroethane                    | 1.72 | mg/kg | 0.0089 | ND     |
| 1,2-Dichloropropane                   | 1.72 | mg/kg | 0.0076 | ND     |
| 1,3-Dichlorobenzene                   | 1.72 | mg/kg | 0.0087 | ND     |
| 1,4-Dichlorobenzene                   | 1.72 | mg/kg | 0.0064 | ND     |
| 1,4-Dioxane                           | 1.72 | mg/kg | 0.44   | ND     |
| 2-Butanone                            | 1.72 | mg/kg | 0.011  | ND     |
| 2-Hexanone                            | 1.72 | mg/kg | 0.010  | ND     |
| 4-Methyl-2-pentanone                  | 1.72 | mg/kg | 0.011  | ND     |
| Acetone                               | 1.72 | mg/kg | 0.057  | ND     |
| Benzene                               | 1.72 | mg/kg | 0.0057 | ND     |
| Bromochloromethane                    | 1.72 | mg/kg | 0.0098 | ND     |
| Bromodichloromethane                  | 1.72 | mg/kg | 0.0069 | ND     |
| Bromoform                             | 1.72 | mg/kg | 0.010  | ND     |
| Bromomethane                          | 1.72 | mg/kg | 0.0075 | ND     |
| Carbon disulfide                      | 1.72 | mg/kg | 0.0057 | ND     |
| Carbon tetrachloride                  | 1.72 | mg/kg | 0.0057 | ND     |
| Chlorobenzene                         | 1.72 | mg/kg | 0.0057 | ND     |
| Chloroethane                          | 1.72 | mg/kg | 0.011  | ND     |
| Chloroform                            | 1.72 | mg/kg | 0.0094 | ND     |
| Chloromethane                         | 1.72 | mg/kg | 0.0057 | ND     |
| cis-1,2-Dichloroethene                | 1.72 | mg/kg | 0.0062 | ND     |
| cis-1,3-Dichloropropene               | 1.72 | mg/kg | 0.0057 | ND     |
| Cyclohexane                           | 1.72 | mg/kg | 0.0057 | ND     |
| Dibromochloromethane                  | 1.72 | mg/kg | 0.0069 | ND     |
| Dichlorodifluoromethane               | 1.72 | mg/kg | 0.0057 | ND     |
| Ethylbenzene                          | 1.72 | mg/kg | 0.0057 | ND     |
| Isopropylbenzene                      | 1.72 | mg/kg | 0.0057 | ND     |
| m&p-Xylenes                           | 1.72 | mg/kg | 0.0057 | ND     |
| Methyl Acetate                        | 1.72 | mg/kg | 0.0098 | ND     |
| Methylcyclohexane                     | 1.72 | mg/kg | 0.0057 | ND     |
| Methylene chloride                    | 1.72 | mg/kg | 0.010  | ND     |
| Methyl-t-butyl ether                  | 1.72 | mg/kg | 0.0057 | ND     |
| o-Xylene                              | 1.72 | mg/kg | 0.0057 | ND     |
| Styrene                               | 1.72 | mg/kg | 0.0057 | ND     |
| Tetrachloroethene                     | 1.72 | mg/kg | 0.0063 | ND     |
| Toluene                               | 1.72 | mg/kg | 0.0057 | ND     |
| trans-1,2-Dichloroethene              | 1.72 | mg/kg | 0.0058 | ND     |
| trans-1,3-Dichloropropene             | 1.72 | mg/kg | 0.0091 | ND     |
| Trichloroethene                       | 1.72 | mg/kg | 0.0067 | ND     |
| Trichlorofluoromethane                | 1.72 | mg/kg | 0.0057 | ND     |
| Vinyl chloride                        | 1.72 | mg/kg | 0.0057 | ND     |
| Xylenes (Total)                       | 1.72 | mg/kg | 0.0057 | ND     |

Sample ID: TB-3  
 Lab#: AD07161-010  
 Matrix: Aqueous

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-1-102018  
Lab#: AD07325-001  
Matrix: Aqueous

Collection Date: 10/23/2018  
Receipt Date: 10/24/2018

**Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

**Sample ID: MW-11-102018****Lab#: AD07325-002****Matrix: Aqueous****Collection Date: 10/23/2018****Receipt Date: 10/24/2018****Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

**Sample ID: GW-DUP1-102018****Lab#: AD07325-003****Matrix: Aqueous****Collection Date: 10/23/2018****Receipt Date: 10/24/2018****Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-001

Client Id: LMW-2-102018 U

Data File: 5M105877.D

Analysis Date: 10/19/18 12:44

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 970ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7   | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-003

Client Id: PC-1-10 2018 U

Data File: 5M105878.D

Analysis Date: 10/19/18 13:08

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-005

Client Id: GW-DUP1-102018 U

Data File: 5M105879.D

Analysis Date: 10/19/18 13:31

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-007

Client Id: MW-11-102018 U

Data File: 5M105880.D

Analysis Date: 10/19/18 13:55

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #          | Compound                    | RL          | Conc        |
|-----------|----------------------------|------|------|----------------|-----------------------------|-------------|-------------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8        | Benzo[a]pyrene              | 1.0         | U           |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2       | Benzo[b]fluoranthene        | 1.0         | U           |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2       | Benzo[g,h,i]perylene        | 1.0         | U           |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9       | Benzo[k]fluoranthene        | 1.0         | U           |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1       | bis(2-Chloroethoxy)methan   | 1.0         | U           |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4       | bis(2-Chloroethyl)ether     | 0.25        | U           |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1       | bis(2-chloroisopropyl)ether | 1.0         | U           |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7       | bis(2-Ethylhexyl)phthalate  | 1.0         | U           |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7        | Butylbenzylphthalate        | 1.0         | U           |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2       | Caprolactam                 | 1.0         | U           |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8        | Carbazole                   | 1.0         | U           |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9       | Chrysene                    | 1.0         | U           |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3        | Dibenzo[a,h]anthracene      | 1.0         | U           |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9       | Dibenzofuran                | 0.25        | U           |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2        | Diethylphthalate            | 1.0         | U           |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3       | Dimethylphthalate           | 1.0         | U           |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2        | Di-n-butylphthalate         | 0.25        | U           |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0       | Di-n-octylphthalate         | 1.0         | U           |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0       | Fluoranthene                | 1.0         | U           |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7        | Fluorene                    | 1.0         | U           |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1       | Hexachlorobenzene           | 1.0         | U           |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3        | Hexachlorobutadiene         | 1.0         | U           |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4        | Hexachlorocyclopentadiene   | 1.0         | U           |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1        | Hexachloroethane            | 1.0         | U           |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5       | Indeno[1,2,3-cd]pyrene      | 1.0         | U           |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1        | Isophorone                  | 1.0         | U           |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | <b>91-20-3</b> | <b>Naphthalene</b>          | <b>0.25</b> | <b>0.56</b> |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3        | Nitrobenzene                | 1.0         | U           |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7       | N-Nitroso-di-n-propylamine  | 0.25        | U           |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6        | n-Nitrosodiphenylamine      | 1.0         | U           |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5        | Pentachlorophenol           | 5.0         | U           |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8        | Phenanthrene                | 1.0         | U           |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2       | Phenol                      | 1.0         | U           |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0       | Pyrene                      | 1.0         | U           |

Worksheet #: 485137

**Total Target Concentration 0.56**

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-001

Client Id: LMW-4-102018 U

Data File: 5M105905.D

Analysis Date: 10/22/18 11:41

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-003

Client Id: PC-2-102018 U

Data File: 5M105906.D

Analysis Date: 10/22/18 12:04

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-005

Client Id: PC-3-102018 U

Data File: 5M105907.D

Analysis Date: 10/22/18 12:28

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-001(R)

Client Id: SW-1-102018

Data File: 5M105976.D

Analysis Date: 10/25/18 13:19

Date Rec/Extracted: 10/17/18-10/24/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 400ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 2.5  | U    | 50-32-8  | Benzo[a]pyrene              | 2.5  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 2.5  | U    | 205-99-2 | Benzo[b]fluoranthene        | 2.5  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.62 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 2.5  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 2.5  | U    | 207-08-9 | Benzo[k]fluoranthene        | 2.5  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 2.5  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 2.5  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 2.5  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.62 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.62 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 2.5  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.62 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 2.5  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 12   | U    | 85-68-7  | Butylbenzylphthalate        | 2.5  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 2.5  | U    | 105-60-2 | Caprolactam                 | 2.5  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 2.5  | U    | 86-74-8  | Carbazole                   | 2.5  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 2.5  | U    | 218-01-9 | Chrysene                    | 2.5  | U    |
| 95-57-8   | 2-Chlorophenol             | 2.5  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 2.5  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 2.5  | U    | 132-64-9 | Dibenzofuran                | 0.62 | U    |
| 95-48-7   | 2-Methylphenol             | 0.62 | U    | 84-66-2  | Diethylphthalate            | 2.5  | U    |
| 88-74-4   | 2-Nitroaniline             | 2.5  | U    | 131-11-3 | Dimethylphthalate           | 2.5  | U    |
| 88-75-5   | 2-Nitrophenol              | 2.5  | U    | 84-74-2  | Di-n-butylphthalate         | 0.62 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.62 | U    | 117-84-0 | Di-n-octylphthalate         | 2.5  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 2.5  | U    | 206-44-0 | Fluoranthene                | 2.5  | U    |
| 99-09-2   | 3-Nitroaniline             | 2.5  | U    | 86-73-7  | Fluorene                    | 2.5  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 12   | U    | 118-74-1 | Hexachlorobenzene           | 2.5  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 2.5  | U    | 87-68-3  | Hexachlorobutadiene         | 2.5  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 2.5  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 2.5  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.62 | U    | 67-72-1  | Hexachloroethane            | 2.5  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2.5  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 2.5  | U    |
| 100-01-6  | 4-Nitroaniline             | 2.5  | U    | 78-59-1  | Isophorone                  | 2.5  | U    |
| 100-02-7  | 4-Nitrophenol              | 2.5  | U    | 91-20-3  | Naphthalene                 | 0.62 | U    |
| 83-32-9   | Acenaphthene               | 2.5  | U    | 98-95-3  | Nitrobenzene                | 2.5  | U    |
| 208-96-8  | Acenaphthylene             | 2.5  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.62 | U    |
| 98-86-2   | Acetophenone               | 2.5  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 2.5  | U    |
| 120-12-7  | Anthracene                 | 2.5  | U    | 87-86-5  | Pentachlorophenol           | 12   | U    |
| 1912-24-9 | Atrazine                   | 2.5  | U    | 85-01-8  | Phenanthrene                | 2.5  | U    |
| 100-52-7  | Benzaldehyde               | 2.5  | U    | 108-95-2 | Phenol                      | 2.5  | U    |
| 56-55-3   | Benzo[a]anthracene         | 2.5  | U    | 129-00-0 | Pyrene                      | 2.5  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

R - Retention Time Out

B - Indicates the analyte was found in the blank as well as in the sample.

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-002

Client Id: SD-1-102018

Data File: 9M88680.D

Analysis Date: 10/20/18 00:07

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 36

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.093 | U    | 50-32-8   | Benzo[a]pyrene             | 0.093 | 0.21 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.093 | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.093 | 0.31 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.093 | 0.14 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.093 | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.093 | 0.10 | 95-95-4   | 2,4,5-Trichlorophenol      | 0.093 | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.093 | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.093 | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.023 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.023 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.093 | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.023 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.093 | U    | 51-28-5   | 2,4-Dinitrophenol          | 0.46  | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.093 | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.093 | U    |
| 105-60-2 | Caprolactam                 | 0.093 | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.093 | U    |
| 86-74-8  | Carbazole                   | 0.093 | U    | 91-58-7   | 2-Chloronaphthalene        | 0.093 | U    |
| 218-01-9 | Chrysene                    | 0.093 | 0.23 | 95-57-8   | 2-Chlorophenol             | 0.093 | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.093 | U    | 91-57-6   | 2-Methylnaphthalene        | 0.093 | U    |
| 132-64-9 | Dibenzofuran                | 0.023 | U    | 95-48-7   | 2-Methylphenol             | 0.023 | U    |
| 84-66-2  | Diethylphthalate            | 0.093 | U    | 88-74-4   | 2-Nitroaniline             | 0.093 | U    |
| 131-11-3 | Dimethylphthalate           | 0.093 | U    | 88-75-5   | 2-Nitrophenol              | 0.093 | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.023 | U    | 106-44-5  | 3&4-Methylphenol           | 0.023 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.093 | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.093 | U    |
| 206-44-0 | Fluoranthene                | 0.093 | 0.35 | 99-09-2   | 3-Nitroaniline             | 0.093 | U    |
| 86-73-7  | Fluorene                    | 0.093 | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.46  | U    |
| 118-74-1 | Hexachlorobenzene           | 0.093 | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.093 | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.093 | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.093 | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.093 | U    | 106-47-8  | 4-Chloroaniline            | 0.023 | U    |
| 67-72-1  | Hexachloroethane            | 0.093 | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.093 | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.093 | 0.12 | 100-01-6  | 4-Nitroaniline             | 0.093 | U    |
| 78-59-1  | Isophorone                  | 0.093 | U    | 100-02-7  | 4-Nitrophenol              | 0.093 | U    |
| 91-20-3  | Naphthalene                 | 0.023 | U    | 83-32-9   | Acenaphthene               | 0.093 | U    |
| 98-95-3  | Nitrobenzene                | 0.093 | U    | 208-96-8  | Acenaphthylene             | 0.093 | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.023 | U    | 98-86-2   | Acetophenone               | 0.093 | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.093 | U    | 120-12-7  | Anthracene                 | 0.093 | U    |
| 87-86-5  | Pentachlorophenol           | 0.46  | U    | 1912-24-9 | Atrazine                   | 0.093 | U    |
| 85-01-8  | Phenanthrene                | 0.093 | 0.16 | 100-52-7  | Benzaldehyde               | 0.093 | U    |
| 108-95-2 | Phenol                      | 0.093 | U    | 56-55-3   | Benzo[a]anthracene         | 0.093 | 0.16 |
| 129-00-0 | Pyrene                      | 0.093 | 0.35 |           |                            |       |      |

Worksheet #: 489030

Total Target Concentration 2.1

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-003(R)

Client Id: SW-2-102018

Data File: 7M95353.D

Analysis Date: 10/26/18 13:16

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 865ml

Final Vol: 0.25ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 0.58 | U    | 50-32-8  | Benzo[a]pyrene              | 0.58 | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 0.58 | U    | 205-99-2 | Benzo[b]fluoranthene        | 0.58 | U    |
| 123-91-1  | 1,4-Dioxane                | 0.14 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 0.58 | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.58 | U    | 207-08-9 | Benzo[k]fluoranthene        | 0.58 | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 0.58 | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 0.58 | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 0.58 | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.14 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.14 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 0.58 | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.14 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.58 | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 2.9  | U    | 85-68-7  | Butylbenzylphthalate        | 0.58 | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 0.58 | U    | 105-60-2 | Caprolactam                 | 0.58 | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 0.58 | U    | 86-74-8  | Carbazole                   | 0.58 | U    |
| 91-58-7   | 2-Chloronaphthalene        | 0.58 | U    | 218-01-9 | Chrysene                    | 0.58 | U    |
| 95-57-8   | 2-Chlorophenol             | 0.58 | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 0.58 | U    |
| 91-57-6   | 2-Methylnaphthalene        | 0.58 | U    | 132-64-9 | Dibenzofuran                | 0.14 | U    |
| 95-48-7   | 2-Methylphenol             | 0.14 | U    | 84-66-2  | Diethylphthalate            | 0.58 | U    |
| 88-74-4   | 2-Nitroaniline             | 0.58 | U    | 131-11-3 | Dimethylphthalate           | 0.58 | U    |
| 88-75-5   | 2-Nitrophenol              | 0.58 | U    | 84-74-2  | Di-n-butylphthalate         | 0.14 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.14 | U    | 117-84-0 | Di-n-octylphthalate         | 0.58 | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 0.58 | U    | 206-44-0 | Fluoranthene                | 0.58 | U    |
| 99-09-2   | 3-Nitroaniline             | 0.58 | U    | 86-73-7  | Fluorene                    | 0.58 | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 2.9  | U    | 118-74-1 | Hexachlorobenzene           | 0.58 | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 0.58 | U    | 87-68-3  | Hexachlorobutadiene         | 0.58 | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 0.58 | U    | 77-47-4  | Hexachlorocyclopentadiene   | 0.58 | U    |
| 106-47-8  | 4-Chloroaniline            | 0.14 | U    | 67-72-1  | Hexachloroethane            | 0.58 | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 0.58 | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.58 | U    |
| 100-01-6  | 4-Nitroaniline             | 0.58 | U    | 78-59-1  | Isophorone                  | 0.58 | U    |
| 100-02-7  | 4-Nitrophenol              | 0.58 | U    | 91-20-3  | Naphthalene                 | 0.14 | U    |
| 83-32-9   | Acenaphthene               | 0.58 | U    | 98-95-3  | Nitrobenzene                | 0.58 | U    |
| 208-96-8  | Acenaphthylene             | 0.58 | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.14 | U    |
| 98-86-2   | Acetophenone               | 0.58 | U    | 86-30-6  | n-Nitrosodiphenylamine      | 0.58 | U    |
| 120-12-7  | Anthracene                 | 0.58 | U    | 87-86-5  | Pentachlorophenol           | 2.9  | U    |
| 1912-24-9 | Atrazine                   | 0.58 | U    | 85-01-8  | Phenanthrene                | 0.58 | U    |
| 100-52-7  | Benzaldehyde               | 0.58 | U    | 108-95-2 | Phenol                      | 0.58 | U    |
| 56-55-3   | Benzo[a]anthracene         | 0.58 | U    | 129-00-0 | Pyrene                      | 0.58 | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (\*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-004

Client Id: SD-2-102018

Data File: 9M88681.D

Analysis Date: 10/20/18 00:31

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 16

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.21  | U    | 50-32-8   | Benzo[a]pyrene             | 0.21  | 0.36 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.21  | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.21  | 0.58 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.21  | 0.30 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.21  | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.21  | U    | 95-95-4   | 2,4,5-Trichlorophenol      | 0.21  | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.21  | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.21  | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.052 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.052 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.21  | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.052 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.21  | U    | 51-28-5   | 2,4-Dinitrophenol          | 1.0   | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.21  | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.21  | U    |
| 105-60-2 | Caprolactam                 | 0.21  | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.21  | U    |
| 86-74-8  | Carbazole                   | 0.21  | U    | 91-58-7   | 2-Chloronaphthalene        | 0.21  | U    |
| 218-01-9 | Chrysene                    | 0.21  | 0.41 | 95-57-8   | 2-Chlorophenol             | 0.21  | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.21  | U    | 91-57-6   | 2-Methylnaphthalene        | 0.21  | U    |
| 132-64-9 | Dibenzofuran                | 0.052 | U    | 95-48-7   | 2-Methylphenol             | 0.052 | U    |
| 84-66-2  | Diethylphthalate            | 0.21  | U    | 88-74-4   | 2-Nitroaniline             | 0.21  | U    |
| 131-11-3 | Dimethylphthalate           | 0.21  | U    | 88-75-5   | 2-Nitrophenol              | 0.21  | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.052 | U    | 106-44-5  | 3&4-Methylphenol           | 0.052 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.21  | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.21  | U    |
| 206-44-0 | Fluoranthene                | 0.21  | 0.50 | 99-09-2   | 3-Nitroaniline             | 0.21  | U    |
| 86-73-7  | Fluorene                    | 0.21  | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 1.0   | U    |
| 118-74-1 | Hexachlorobenzene           | 0.21  | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.21  | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.21  | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.21  | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.21  | U    | 106-47-8  | 4-Chloroaniline            | 0.052 | U    |
| 67-72-1  | Hexachloroethane            | 0.21  | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.21  | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.21  | 0.22 | 100-01-6  | 4-Nitroaniline             | 0.21  | U    |
| 78-59-1  | Isophorone                  | 0.21  | U    | 100-02-7  | 4-Nitrophenol              | 0.21  | U    |
| 91-20-3  | Naphthalene                 | 0.052 | U    | 83-32-9   | Acenaphthene               | 0.21  | U    |
| 98-95-3  | Nitrobenzene                | 0.21  | U    | 208-96-8  | Acenaphthylene             | 0.21  | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.052 | U    | 98-86-2   | Acetophenone               | 0.21  | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.21  | U    | 120-12-7  | Anthracene                 | 0.21  | U    |
| 87-86-5  | Pentachlorophenol           | 1.0   | U    | 1912-24-9 | Atrazine                   | 0.21  | U    |
| 85-01-8  | Phenanthrene                | 0.21  | U    | 100-52-7  | Benzaldehyde               | 0.21  | U    |
| 108-95-2 | Phenol                      | 0.21  | U    | 56-55-3   | Benzo[a]anthracene         | 0.21  | 0.29 |
| 129-00-0 | Pyrene                      | 0.21  | 0.56 |           |                            |       |      |

Worksheet #: 489030

Total Target Concentration 3.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-005(R)

Client Id: SW-3-102018

Data File: 7M95354.D

Analysis Date: 10/26/18 13:38

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 865ml

Final Vol: 0.25ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 0.58 | U    | 50-32-8  | Benzo[a]pyrene              | 0.58 | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 0.58 | U    | 205-99-2 | Benzo[b]fluoranthene        | 0.58 | U    |
| 123-91-1  | 1,4-Dioxane                | 0.14 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 0.58 | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.58 | U    | 207-08-9 | Benzo[k]fluoranthene        | 0.58 | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 0.58 | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 0.58 | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 0.58 | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.14 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.14 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 0.58 | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.14 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.58 | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 2.9  | U    | 85-68-7  | Butylbenzylphthalate        | 0.58 | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 0.58 | U    | 105-60-2 | Caprolactam                 | 0.58 | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 0.58 | U    | 86-74-8  | Carbazole                   | 0.58 | U    |
| 91-58-7   | 2-Chloronaphthalene        | 0.58 | U    | 218-01-9 | Chrysene                    | 0.58 | U    |
| 95-57-8   | 2-Chlorophenol             | 0.58 | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 0.58 | U    |
| 91-57-6   | 2-Methylnaphthalene        | 0.58 | U    | 132-64-9 | Dibenzofuran                | 0.14 | U    |
| 95-48-7   | 2-Methylphenol             | 0.14 | U    | 84-66-2  | Diethylphthalate            | 0.58 | U    |
| 88-74-4   | 2-Nitroaniline             | 0.58 | U    | 131-11-3 | Dimethylphthalate           | 0.58 | U    |
| 88-75-5   | 2-Nitrophenol              | 0.58 | U    | 84-74-2  | Di-n-butylphthalate         | 0.14 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.14 | U    | 117-84-0 | Di-n-octylphthalate         | 0.58 | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 0.58 | U    | 206-44-0 | Fluoranthene                | 0.58 | U    |
| 99-09-2   | 3-Nitroaniline             | 0.58 | U    | 86-73-7  | Fluorene                    | 0.58 | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 2.9  | U    | 118-74-1 | Hexachlorobenzene           | 0.58 | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 0.58 | U    | 87-68-3  | Hexachlorobutadiene         | 0.58 | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 0.58 | U    | 77-47-4  | Hexachlorocyclopentadiene   | 0.58 | U    |
| 106-47-8  | 4-Chloroaniline            | 0.14 | U    | 67-72-1  | Hexachloroethane            | 0.58 | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 0.58 | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.58 | U    |
| 100-01-6  | 4-Nitroaniline             | 0.58 | U    | 78-59-1  | Isophorone                  | 0.58 | U    |
| 100-02-7  | 4-Nitrophenol              | 0.58 | U    | 91-20-3  | Naphthalene                 | 0.14 | U    |
| 83-32-9   | Acenaphthene               | 0.58 | U    | 98-95-3  | Nitrobenzene                | 0.58 | U    |
| 208-96-8  | Acenaphthylene             | 0.58 | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.14 | U    |
| 98-86-2   | Acetophenone               | 0.58 | U    | 86-30-6  | n-Nitrosodiphenylamine      | 0.58 | U    |
| 120-12-7  | Anthracene                 | 0.58 | U    | 87-86-5  | Pentachlorophenol           | 2.9  | U    |
| 1912-24-9 | Atrazine                   | 0.58 | U    | 85-01-8  | Phenanthrene                | 0.58 | U    |
| 100-52-7  | Benzaldehyde               | 0.58 | U    | 108-95-2 | Phenol                      | 0.58 | U    |
| 56-55-3   | Benzo[a]anthracene         | 0.58 | U    | 129-00-0 | Pyrene                      | 0.58 | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-006

Client Id: SD-3-102018

Data File: 9M88682.D

Analysis Date: 10/20/18 00:54

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 55

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc  | Cas #     | Compound                   | RL    | Conc  |
|----------|-----------------------------|-------|-------|-----------|----------------------------|-------|-------|
| 92-52-4  | 1,1'-Biphenyl               | 0.061 | U     | 50-32-8   | Benzo[a]pyrene             | 0.061 | 0.075 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.061 | U     | 205-99-2  | Benzo[b]fluoranthene       | 0.061 | 0.11  |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.061 | U     | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.061 | U     |
| 207-08-9 | Benzo[k]fluoranthene        | 0.061 | U     | 95-95-4   | 2,4,5-Trichlorophenol      | 0.061 | U     |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.061 | U     | 88-06-2   | 2,4,6-Trichlorophenol      | 0.061 | U     |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.015 | U     | 120-83-2  | 2,4-Dichlorophenol         | 0.015 | U     |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.061 | U     | 105-67-9  | 2,4-Dimethylphenol         | 0.015 | U     |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.061 | U     | 51-28-5   | 2,4-Dinitrophenol          | 0.30  | U     |
| 85-68-7  | Butylbenzylphthalate        | 0.061 | U     | 121-14-2  | 2,4-Dinitrotoluene         | 0.061 | U     |
| 105-60-2 | Caprolactam                 | 0.061 | U     | 606-20-2  | 2,6-Dinitrotoluene         | 0.061 | U     |
| 86-74-8  | Carbazole                   | 0.061 | U     | 91-58-7   | 2-Chloronaphthalene        | 0.061 | U     |
| 218-01-9 | Chrysene                    | 0.061 | 0.071 | 95-57-8   | 2-Chlorophenol             | 0.061 | U     |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.061 | U     | 91-57-6   | 2-Methylnaphthalene        | 0.061 | U     |
| 132-64-9 | Dibenzofuran                | 0.015 | U     | 95-48-7   | 2-Methylphenol             | 0.015 | U     |
| 84-66-2  | Diethylphthalate            | 0.061 | U     | 88-74-4   | 2-Nitroaniline             | 0.061 | U     |
| 131-11-3 | Dimethylphthalate           | 0.061 | U     | 88-75-5   | 2-Nitrophenol              | 0.061 | U     |
| 84-74-2  | Di-n-butylphthalate         | 0.015 | U     | 106-44-5  | 3&4-Methylphenol           | 0.015 | U     |
| 117-84-0 | Di-n-octylphthalate         | 0.061 | U     | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.061 | U     |
| 206-44-0 | Fluoranthene                | 0.061 | 0.13  | 99-09-2   | 3-Nitroaniline             | 0.061 | U     |
| 86-73-7  | Fluorene                    | 0.061 | U     | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.30  | U     |
| 118-74-1 | Hexachlorobenzene           | 0.061 | U     | 101-55-3  | 4-Bromophenyl-phenylether  | 0.061 | U     |
| 87-68-3  | Hexachlorobutadiene         | 0.061 | U     | 59-50-7   | 4-Chloro-3-methylphenol    | 0.061 | U     |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.061 | U     | 106-47-8  | 4-Chloroaniline            | 0.015 | U     |
| 67-72-1  | Hexachloroethane            | 0.061 | U     | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.061 | U     |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.061 | U     | 100-01-6  | 4-Nitroaniline             | 0.061 | U     |
| 78-59-1  | Isophorone                  | 0.061 | U     | 100-02-7  | 4-Nitrophenol              | 0.061 | U     |
| 91-20-3  | Naphthalene                 | 0.015 | U     | 83-32-9   | Acenaphthene               | 0.061 | U     |
| 98-95-3  | Nitrobenzene                | 0.061 | U     | 208-96-8  | Acenaphthylene             | 0.061 | U     |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.015 | U     | 98-86-2   | Acetophenone               | 0.061 | U     |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.061 | U     | 120-12-7  | Anthracene                 | 0.061 | U     |
| 87-86-5  | Pentachlorophenol           | 0.30  | U     | 1912-24-9 | Atrazine                   | 0.061 | U     |
| 85-01-8  | Phenanthrene                | 0.061 | U     | 100-52-7  | Benzaldehyde               | 0.061 | U     |
| 108-95-2 | Phenol                      | 0.061 | U     | 56-55-3   | Benzo[a]anthracene         | 0.061 | 0.075 |
| 129-00-0 | Pyrene                      | 0.061 | 0.13  |           |                            |       |       |

Worksheet #: 489030

Total Target Concentration 0.59

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-007(R)

Client Id: SW-DUP1-102018

Data File: 7M95355.D

Analysis Date: 10/26/18 14:01

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 970ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7   | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5  | 3,4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-008(R)

Client Id: SW-4-102018

Data File: 7M95356.D

Analysis Date: 10/26/18 14:25

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 960ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7   | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-009

Client Id: SD-4-102018

Data File: 9M88683.D

Analysis Date: 10/20/18 01:17

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 30

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.11  | U    | 50-32-8   | Benzo[a]pyrene             | 0.11  | 0.17 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.11  | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.11  | 0.26 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.11  | 0.14 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.11  | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.11  | U    | 95-95-4   | 2,4,5-Trichlorophenol      | 0.11  | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.11  | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.11  | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.028 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.028 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.11  | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.028 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.11  | U    | 51-28-5   | 2,4-Dinitrophenol          | 0.56  | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.11  | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.11  | U    |
| 105-60-2 | Caprolactam                 | 0.11  | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.11  | U    |
| 86-74-8  | Carbazole                   | 0.11  | U    | 91-58-7   | 2-Chloronaphthalene        | 0.11  | U    |
| 218-01-9 | Chrysene                    | 0.11  | 0.18 | 95-57-8   | 2-Chlorophenol             | 0.11  | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.11  | U    | 91-57-6   | 2-Methylnaphthalene        | 0.11  | U    |
| 132-64-9 | Dibenzofuran                | 0.028 | U    | 95-48-7   | 2-Methylphenol             | 0.028 | U    |
| 84-66-2  | Diethylphthalate            | 0.11  | U    | 88-74-4   | 2-Nitroaniline             | 0.11  | U    |
| 131-11-3 | Dimethylphthalate           | 0.11  | U    | 88-75-5   | 2-Nitrophenol              | 0.11  | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.028 | U    | 106-44-5  | 3&4-Methylphenol           | 0.028 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.11  | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.11  | U    |
| 206-44-0 | Fluoranthene                | 0.11  | 0.27 | 99-09-2   | 3-Nitroaniline             | 0.11  | U    |
| 86-73-7  | Fluorene                    | 0.11  | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.56  | U    |
| 118-74-1 | Hexachlorobenzene           | 0.11  | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.11  | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.11  | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.11  | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.11  | U    | 106-47-8  | 4-Chloroaniline            | 0.028 | U    |
| 67-72-1  | Hexachloroethane            | 0.11  | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.11  | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.11  | U    | 100-01-6  | 4-Nitroaniline             | 0.11  | U    |
| 78-59-1  | Isophorone                  | 0.11  | U    | 100-02-7  | 4-Nitrophenol              | 0.11  | U    |
| 91-20-3  | Naphthalene                 | 0.028 | U    | 83-32-9   | Acenaphthene               | 0.11  | U    |
| 98-95-3  | Nitrobenzene                | 0.11  | U    | 208-96-8  | Acenaphthylene             | 0.11  | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.028 | U    | 98-86-2   | Acetophenone               | 0.11  | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.11  | U    | 120-12-7  | Anthracene                 | 0.11  | U    |
| 87-86-5  | Pentachlorophenol           | 0.56  | U    | 1912-24-9 | Atrazine                   | 0.11  | U    |
| 85-01-8  | Phenanthrene                | 0.11  | 0.12 | 100-52-7  | Benzaldehyde               | 0.11  | 0.60 |
| 108-95-2 | Phenol                      | 0.11  | U    | 56-55-3   | Benzo[a]anthracene         | 0.11  | 0.14 |
| 129-00-0 | Pyrene                      | 0.11  | 0.27 |           |                            |       |      |

Worksheet #: 489030

## Total Target Concentration 2.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids****TestGroupName: % Solids SM2540G****Project #: 8101509****TestGroup: %SOLIDS**

| Lab#        | Client SampleID | Matrix          | Dilution: | Result | Units:  | RL | Prep Date | Analysis Date | Received Date | Collect Date |
|-------------|-----------------|-----------------|-----------|--------|---------|----|-----------|---------------|---------------|--------------|
| AD07161-002 | SD-1-102018     | Sediment/Encore | 1         | 36     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-004 | SD-2-102018     | Sediment/Encore | 1         | 16     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-006 | SD-3-102018     | Sediment/Encore | 1         | 55     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-009 | SD-4-102018     | Sediment/Encore | 1         | 30     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |

## **Chain of Custody Forms**

[illegible]



# Hampton-Clarke, Inc. (WBE/DBE/SBE)

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004  
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458  
Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054  
Ph (Service Center): 856-780-6057 Fax: 856-780-6056



## CHAIN OF CUSTODY RECORD

NELANU #07071 | PA #8-00463 | NY #1408 | CT #PH40671 | KY #00124 | DE HSCA Approved

A Women-Owned, Disadvantaged, Small Business Enterprise

Project # 8101569  
3) Reporting Requirements (Please Circle)

Page 1 of 1

### Customer Information

1a) Customer: TRC Engineers  
Address: 1430 Broadway 10th FL  
New York, NY 10018

### Project Information

2a) Project: Harrison Sub-Reading  
2b) Project Mgr: James Robinson  
2c) Project Location (City/State): Harrison, NY

### Turnaround

### Report Type

Electronic Data Deliv.

1b) Email/Cell/Fax/Ph:

JamesRobinson@trcsolutions.com  
AP@trcsolutions.com  
AP@trcsolutions.com

When Available:

1 Business Day (100%)\*  
2 Business Days (75%)\*  
3 Business Days (50%)\*  
4 Business Days (35%)\*  
5 Business Days (25%)\*  
8 Business Days (Standard)

Other: NY ASP Call

1c) Send Invoice to:

"

Other: NY ASP Call

Other: NY DEC

1d) Send Report to:

"

Other: NY ASP Call

Other: NY DEC

### FOR LAB USE ONLY

### Matrix Codes

DW - Drinking Water S - Soil A - Air  
GW - Ground Water SL - Sludge  
WW - Waste Water OL - Oil  
OT - Other (please specify under item 9, Comments)

Batch # AD07137

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

HCl

H2SO4

HNO3

Other:

Other:

Other:

Other:

Other:

Other:

Lab Sample #

4) Customer Sample ID

5) Matrix

6) Sample Date

7) Analysis (specify methods & parameter lists)

Composite (C)

Grab (G)

Sample Type

8) # of Bottles

9) Comments

None

MeOH

En Core

NaOH

**Hampton-Clarke, Inc. (WBE/DBE/SBE)**  
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Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458  
Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054  
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only) 8101509 Page 1 of 1  
3) Reporting Requirements (Please Circle)

**Customer Information**  
1a) Customer: TRE Engineers  
Address: 1430 Broadway 10th Fl  
New York, NY 10018  
1b) Email/Cell/Fax/Ph: Jim@tre-engineers.com  
1c) Send Invoice to: HP Invoice #11001 @ the school don  
1d) Send Report to: "

**Project Information**  
2a) Project: Harrison Sus - Passivity  
2b) Project Mgr: James Robinson  
2c) Project Location (City/State): Harrison, NY  
2d) Quote/PO # (If Applicable): 128525

**Turnaround**  
When Available:  
1 Business Day (100%)\*  
2 Business Days (75%)\*  
3 Business Days (50%)\*  
4 Business Days (35%)\*  
5 Business Days (25%)\*  
8 Business Days (Standard)  
Other: \_\_\_\_\_  
Report Type: Summary  
Results + QC (Waste) Reduced:  
[ ] NJ [ ] NY [ ] PA [ ] Other: \_\_\_\_\_  
NJ Full (NY ASP CatB)  
NY ASP CatA  
Other: \_\_\_\_\_  
Electronic Data Deliv. NJ Hazsite  
Excel Reg. NJ (NTPA)  
EnviroData  
EQUIS: [ ] 4-File [ ] EZ  
[ ] NYDEC  
[ ] Region 2 or 5  
Other: \_\_\_\_\_

| FOR LAB USE ONLY |                                                                                                                                    | ====> Check if Contingent =====>                     |                               |             |               | 7) Analysis (specify methods & parameter lists) |                            |          |            |         |          |  |  |  |  | <===== Check if Contingent <===== |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------|-------------|---------------|-------------------------------------------------|----------------------------|----------|------------|---------|----------|--|--|--|--|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Batch #          | Matrix Codes<br>DW - Drinking Water<br>GW - Ground Water<br>WW - Waste Water<br>OT - Other (please specify under item 9, Comments) | S - Soil<br>SL - Sludge<br>OL - Oil<br>SD - Sediment | A - Air<br>SW - Surface Water | Sample Type | Composite (C) | Grab (G)                                        | SUSC w/ Low RL<br>for 14-D | Chloride | TAL Metals | Cyanide | Hardness |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

10) Relinquished by: [Signature] Accepted by: [Signature] Date: 10/17/18 Time: 130  
10/17/18  
10/17/18  
1615

11) Sampler (print name): James Robinson Date: 10/17/18  
Additional Notes: Please batch all Harrison samples received from 10/15/18 thru 10/18/18 on same lab report. WBS for today  
Internal use: samplino plan (check box) HC [ ] or client [ ] FSP# 3426  
Cooler Temperature 34.26





# PROJECT MODIFICATIONS

**Client:** TRC-NYC

**HC Project #:** 8101509

**Project:** Harrison Sub Residency

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-----  
maureen192.168.1.71  
11/7/2018 2:47:27 PM  
-----

Per James Robinson all Harrison COC's from 10/15/18 through 10/23/18 should be batched together in one report. (AD07118, AD07137, AD07161 & AD07325)  
MS 11/7/18

## CONDITION UPON RECEIPT

Batch Number AD07118

Entered By: Ricardo

Date Entered 10/15/2018 4:36:00 PM

- 
- |    |       |                                                                                                                    |
|----|-------|--------------------------------------------------------------------------------------------------------------------|
| 1  | Yes   | Is there a corresponding COC included with the samples?                                                            |
|    |       |                                                                                                                    |
| 2  | Yes   | Are the samples in a container such as a cooler or Ice chest?                                                      |
|    |       |                                                                                                                    |
| 3  | No    | Are the COC seals intact?                                                                                          |
|    |       |                                                                                                                    |
| 4  | T0054 | <--- Thermometer ID. Please specify the Temperature inside the container (in degC).<br>3.7                         |
|    |       |                                                                                                                    |
| 5  | Yes   | Are the samples refrigerated (where required)/have they arrived on ice?                                            |
|    |       |                                                                                                                    |
| 6  | Yes   | Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples: |
|    |       |                                                                                                                    |
| 7  | Yes   | Are all of the sample bottles intact? If no, specify sample numbers broken/leaking                                 |
|    |       |                                                                                                                    |
| 8  | Yes   | Are all of the sample labels or numbers legible? If no specify:                                                    |
|    |       |                                                                                                                    |
| 9  | Yes   | Do the contents match the COC? If no, specify                                                                      |
|    |       |                                                                                                                    |
| 10 | Yes   | Is there enough sample sent for the analyses listed on the COC? If no, specify:                                    |
|    |       |                                                                                                                    |
| 11 | Yes   | Are samples preserved correctly?                                                                                   |
|    |       |                                                                                                                    |
| 12 | Yes   | Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?            |
|    |       |                                                                                                                    |
| 13 | NA    | Other comments ...Specify<br>The collection time on the bottle for LMW-2-102018 is 12:00.                          |
|    |       |                                                                                                                    |
| 14 | NA    | Corrective actions (Specify item number and corrective action taken).                                              |

## CONDITION UPON RECEIPT

Batch Number AD07137

Entered By: Frantz

Date Entered 10/16/2018 4:11:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
  - 2 Yes Are the samples in a container such as a cooler or Ice chest?
  - 3 No Are the COC seals intact?
  - 4 T0056 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).  
3.0
  - 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
  - 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
  - 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
  - 8 Yes Are all of the sample labels or numbers legible? If no specify:
  - 9 Yes Do the contents match the COC? If no, specify
  - 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
  - 11 Yes Are samples preserved correctly?
  - 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
  - 13 NA Other comments ...Specify  
Two TB's were received. COC has TB-1 and TB-2 listed but TB-1 is crossed out. Per James Robinson via email dated 10/17/18 the COC received on 10/15/18 should have TB-1 listed on it. One of the TB's received with this COC will be labeled AD07118-009 as TB-1. MS 10/17/18
  - 14 NA Corrective actions (Specify item number and corrective action taken).

## CONDITION UPON RECEIPT

Batch Number AD07161

Entered By: Frantz

Date Entered 10/17/2018 4:49:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 No Are the COC seals intact?
- 4 T0056 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).  
3.4,2.6
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 No Do the contents match the COC? If no, specify  
Two sets of samples received for SD-3-102018. One of the sets have a collection date/time of 10/17/18/ at 10:35.  
SD-2-102018 was not received.
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 Yes Other comments ...Specify  
Samples for voc received on 10/18/18 at 15:30 cooler temp=3.5
- 14 Yes Corrective actions (Specify item number and corrective action taken).  
9-Per James Robinson via email dated 10/19/18 the set of samples labeled SD-3-102018 with the collection date/time of 10/17/18/ at 10:35 should be labeled SD-2-102018. MS 10/19/18



## CONDITION UPON RECEIPT

Batch Number AD07325

Entered By: ricardo

Date Entered 10/25/2018 12:26:00 PM

- 
- |    |       |                                                                                                                    |
|----|-------|--------------------------------------------------------------------------------------------------------------------|
| 1  | Yes   | Is there a corresponding COC included with the samples?                                                            |
|    |       |                                                                                                                    |
| 2  | Yes   | Are the samples in a container such as a cooler or Ice chest?                                                      |
|    |       |                                                                                                                    |
| 3  | No    | Are the COC seals intact?                                                                                          |
|    |       |                                                                                                                    |
| 4  | T0054 | <--- Thermometer ID. Please specify the Temperature inside the container (in degC).<br>3.4                         |
|    |       |                                                                                                                    |
| 5  | Yes   | Are the samples refrigerated (where required)/have they arrived on ice?                                            |
|    |       |                                                                                                                    |
| 6  | Yes   | Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples: |
|    |       |                                                                                                                    |
| 7  | Yes   | Are all of the sample bottles intact? If no, specify sample numbers broken/leaking                                 |
|    |       |                                                                                                                    |
| 8  | Yes   | Are all of the sample labels or numbers legible? If no specify:                                                    |
|    |       |                                                                                                                    |
| 9  | Yes   | Do the contents match the COC? If no, specify                                                                      |
|    |       |                                                                                                                    |
| 10 | Yes   | Is there enough sample sent for the analyses listed on the COC? If no, specify:                                    |
|    |       |                                                                                                                    |
| 11 | Yes   | Are samples preserved correctly?                                                                                   |
|    |       |                                                                                                                    |
| 12 | Yes   | Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?            |
|    |       |                                                                                                                    |
| 13 | NA    | Other comments ...Specify                                                                                          |
|    |       |                                                                                                                    |
| 14 | NA    | Corrective actions (Specify item number and corrective action taken).                                              |

## PRESERVATION DOCUMENT

Batch Number AD07118

Entered By: Ricardo

Date Entered 10/15/2018 4:20:00 PM

| Lab#        | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07118-001 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-001 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-001 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-003 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-003 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-003 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-005 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-005 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-005 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-007 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-007 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-007 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |

## PRESERVATION DOCUMENT

Batch Number AD07137

Entered By: Frantz

Date Entered 10/16/2018 4:11:00 PM

| Lab#:       | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07137-001 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-001 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-002 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-003 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-003 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-004 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-005 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-005 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-006 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-007 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |

## PRESERVATION DOCUMENT

Batch Number AD07161

Entered By: Frantz

Date Entered 10/17/2018 4:51:00 PM

| Lab#:       | Container | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-----------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07161-001 | 40ML      | g                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-001 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-002 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-003 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-003 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-004 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-005 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-005 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-006 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-007 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-008 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-008 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-009 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-010 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |

## PRESERVATION DOCUMENT

Batch Number AD07325

Entered By: ricardo

Date Entered 10/25/2018 12:30:00 PM

| Lab#        | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07325-001 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |
| AD07325-002 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |
| AD07325-003 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |

## Internal Chain of Custody

8101509 0099

| Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis   |
|-------------|----------------|-------------|--------|-----|------------|
| AD07118-001 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-001 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-001 | 10/16/18 08:34 | R31         | 1      | A   | PH/CHECK   |
| AD07118-001 | 10/16/18 08:36 | R31         | 2      | A   | NONE       |
| AD07118-001 | 10/16/18 08:36 | R31         | 3      | A   | NONE       |
| AD07118-001 | 10/22/18 08:45 | WP          | 3      | A   | VOA        |
| AD07118-001 | 10/15/18 16:48 | R12         | 4      | A   | NONE       |
| AD07118-001 | 10/22/18 10:37 | JW          | 4      | A   | IC         |
| AD07118-001 | 10/22/18 17:14 | R12         | 4      | A   | NONE       |
| AD07118-001 | 10/15/18 16:48 | R12         | 5      | A   | NONE       |
| AD07118-001 | 10/17/18 08:47 | JMP         | 5      | A   | CN         |
| AD07118-001 | 10/17/18 12:23 | R12         | 5      | A   | NONE       |
| AD07118-001 | 10/15/18 16:48 | R12         | 6      | A   | NONE       |
| AD07118-001 | 10/18/18 11:34 | JN          | 6      | A   | BN/BNA     |
| AD07118-001 | 10/15/18 16:48 | R12         | 7      | A   | NONE       |
| AD07118-002 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-002 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-002 | 10/15/18 16:48 | R12         | 1      | A   | NONE       |
| AD07118-002 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07118-002 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07118-002 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07118-002 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07118-003 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-003 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-003 | 10/16/18 08:36 | R31         | 1      | A   | NONE       |
| AD07118-003 | 10/22/18 08:45 | WP          | 1      | A   | VOA        |
| AD07118-003 | 10/16/18 08:36 | R31         | 2      | A   | NONE       |
| AD07118-003 | 10/16/18 08:36 | R31         | 3      | A   | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12         | 4      | A   | NONE       |
| AD07118-003 | 10/22/18 10:37 | JW          | 4      | A   | IC         |
| AD07118-003 | 10/22/18 17:14 | R12         | 4      | A   | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12         | 5      | A   | NONE       |
| AD07118-003 | 10/15/18 16:59 | JW          | 5      | A   | IC         |
| AD07118-003 | 10/15/18 17:02 | R12         | 5      | A   | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12         | 6      | A   | NONE       |
| AD07118-003 | 10/22/18 08:35 | JIR         | 6      | A   | BN         |
| AD07118-003 | 10/15/18 16:48 | R12         | 7      | A   | NONE       |
| AD07118-003 | 10/18/18 11:34 | JN          | 7      | A   | BN/BNA     |
| AD07118-003 | 10/16/18 13:18 | BCT         | 10     | A   | ALKALINITY |
| AD07118-003 | 10/15/18 16:48 | R12         | 11     | A   | NONE       |
| AD07118-003 | 10/17/18 08:47 | JMP         | 11     | A   | CN         |
| AD07118-003 | 10/17/18 12:23 | R12         | 11     | A   | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12         | 12     | A   | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12         | 13     | A   | NONE       |
| AD07118-004 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-004 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-004 | 10/15/18 16:48 | R12         | 1      | A   | NONE       |
| AD07118-004 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07118-004 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07118-004 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07118-004 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07118-005 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-005 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-005 | 10/16/18 08:36 | R31         | 1      | A   | NONE       |
| AD07118-005 | 10/22/18 08:45 | WP          | 1      | A   | VOA        |
| AD07118-005 | 10/16/18 08:36 | R31         | 2      | A   | NONE       |
| AD07118-005 | 10/16/18 08:34 | R31         | 3      | A   | PH/CHECK   |
| AD07118-005 | 10/15/18 16:48 | R12         | 4      | A   | NONE       |
| AD07118-005 | 10/18/18 11:34 | JN          | 4      | A   | BN/BNA     |
| AD07118-005 | 10/15/18 16:48 | R12         | 5      | A   | NONE       |
| AD07118-005 | 10/22/18 10:37 | JW          | 5      | A   | IC         |
| AD07118-005 | 10/22/18 10:38 | JW          | 5      | A   | IC         |
| AD07118-005 | 10/22/18 17:14 | R12         | 5      | A   | NONE       |
| AD07118-005 | 10/15/18 16:48 | R12         | 6      | A   | NONE       |
| AD07118-005 | 10/17/18 08:47 | JMP         | 6      | A   | CN         |
| AD07118-005 | 10/17/18 12:23 | R12         | 6      | A   | NONE       |
| AD07118-006 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-006 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-006 | 10/15/18 16:48 | R12         | 1      | A   | NONE       |
| AD07118-006 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07118-006 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07118-006 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07118-006 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07118-007 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-007 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |

| Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis   |
|-------------|----------------|-------------|--------|-----|------------|
| AD07118-007 | 10/16/18 08:34 | R31         | 1      | A   | PH/CHECK   |
| AD07118-007 | 10/16/18 08:36 | R31         | 2      | A   | NONE       |
| AD07118-007 | 10/16/18 08:36 | R31         | 3      | A   | NONE       |
| AD07118-007 | 10/22/18 08:45 | WP          | 3      | A   | VOA        |
| AD07118-007 | 10/16/18 13:18 | BCT         | 6      | A   | ALKALINITY |
| AD07118-007 | 10/15/18 16:48 | R12         | 7      | A   | NONE       |
| AD07118-007 | 10/15/18 16:48 | R12         | 8      | A   | NONE       |
| AD07118-007 | 10/18/18 11:34 | JN          | 8      | A   | BN/BNA     |
| AD07118-007 | 10/15/18 16:48 | R12         | 9      | A   | NONE       |
| AD07118-007 | 10/15/18 16:59 | JW          | 9      | A   | IC         |
| AD07118-007 | 10/15/18 17:02 | R12         | 9      | A   | NONE       |
| AD07118-007 | 10/22/18 10:37 | JW          | 9      | A   | IC         |
| AD07118-007 | 10/22/18 17:14 | R12         | 9      | A   | NONE       |
| AD07118-007 | 10/15/18 16:48 | R12         | 10     | A   | NONE       |
| AD07118-007 | 10/15/18 16:48 | R12         | 11     | A   | NONE       |
| AD07118-008 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-008 | 10/15/18 16:15 | RICAR       | 0      | M   | Login      |
| AD07118-008 | 10/15/18 16:48 | R12         | 1      | A   | NONE       |
| AD07118-008 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07118-008 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07118-008 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07118-008 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07118-009 | 10/15/18 16:01 | RICAR       | 0      | M   | Received   |
| AD07118-009 | 10/22/18 15:33 | RICAR       | 0      | M   | Login      |
| AD07118-009 | 10/29/18 14:35 | SG          | 1      | A   | VOA        |
| AD07137-001 | 10/16/18 16:05 | FRAN        | 0      | M   | Received   |
| AD07137-001 | 10/16/18 16:11 | FRAN        | 0      | M   | Login      |
| AD07137-001 | 10/16/18 17:24 | R12         | 1      | A   | NONE       |
| AD07137-001 | 10/19/18 10:39 | JN          | 1      | A   | BN/BNA     |
| AD07137-001 | 10/16/18 17:24 | R12         | 2      | A   | NONE       |
| AD07137-001 | 10/23/18 11:29 | JN          | 2      | A   | BN/BNA     |
| AD07137-001 | 10/16/18 17:24 | R12         | 3      | A   | NONE       |
| AD07137-001 | 10/26/18 12:13 | JW          | 3      | A   | IC         |
| AD07137-001 | 10/26/18 17:18 | R12         | 3      | A   | NONE       |
| AD07137-001 | 10/16/18 17:24 | R12         | 4      | A   | NONE       |
| AD07137-001 | 10/17/18 08:47 | JMP         | 4      | A   | CN         |
| AD07137-001 | 10/17/18 12:23 | R12         | 4      | A   | NONE       |
| AD07137-001 | 10/16/18 17:58 | R31         | 5      | A   | NONE       |
| AD07137-001 | 10/16/18 17:58 | R31         | 6      | A   | NONE       |
| AD07137-001 | 10/22/18 08:45 | WP          | 6      | A   | VOA        |
| AD07137-001 | 10/16/18 17:58 | R31         | 7      | A   | NONE       |
| AD07137-002 | 10/16/18 16:05 | FRAN        | 0      | M   | Received   |
| AD07137-002 | 10/16/18 16:11 | FRAN        | 0      | M   | Login      |
| AD07137-002 | 10/16/18 17:24 | R12         | 1      | A   | NONE       |
| AD07137-002 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07137-002 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07137-002 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07137-002 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07137-003 | 10/16/18 16:05 | FRAN        | 0      | M   | Received   |
| AD07137-003 | 10/16/18 16:11 | FRAN        | 0      | M   | Login      |
| AD07137-003 | 10/16/18 17:58 | R31         | 1      | A   | NONE       |
| AD07137-003 | 10/22/18 08:45 | WP          | 1      | A   | VOA        |
| AD07137-003 | 10/16/18 17:58 | R31         | 2      | A   | NONE       |
| AD07137-003 | 10/16/18 17:58 | R31         | 3      | A   | NONE       |
| AD07137-003 | 10/16/18 17:24 | R12         | 4      | A   | NONE       |
| AD07137-003 | 10/16/18 17:24 | R12         | 5      | A   | NONE       |
| AD07137-003 | 10/19/18 10:39 | JN          | 5      | A   | BN/BNA     |
| AD07137-003 | 10/16/18 17:24 | R12         | 6      | A   | NONE       |
| AD07137-003 | 10/26/18 12:13 | JW          | 6      | A   | IC         |
| AD07137-003 | 10/26/18 17:18 | R12         | 6      | A   | NONE       |
| AD07137-003 | 10/17/18 08:47 | JMP         | 7      | A   | CN         |
| AD07137-003 | 10/17/18 12:23 | R12         | 7      | A   | NONE       |
| AD07137-004 | 10/16/18 16:05 | FRAN        | 0      | M   | Received   |
| AD07137-004 | 10/16/18 16:11 | FRAN        | 0      | M   | Login      |
| AD07137-004 | 10/16/18 17:24 | R12         | 1      | A   | NONE       |
| AD07137-004 | 10/18/18 09:32 | AM          | 1      | M   | TDWI/HG    |
| AD07137-004 | 10/18/18 10:33 | R12         | 1      | A   | NONE       |
| AD07137-004 | 10/23/18 10:18 | AM          | 1      | A   | tdwi       |
| AD07137-004 | 10/23/18 10:19 | R12         | 1      | A   | NONE       |
| AD07137-005 | 10/16/18 16:05 | FRAN        | 0      | M   | Received   |
| AD07137-005 | 10/16/18 16:11 | FRAN        | 0      | M   | Login      |
| AD07137-005 | 10/16/18 17:24 | R12         | 1      | A   | NONE       |
| AD07137-005 | 10/16/18 17:24 | R12         | 2      | A   | NONE       |
| AD07137-005 | 10/19/18 10:39 | JN          | 2      | A   | BN/BNA     |
| AD07137-005 | 10/16/18 17:24 | R12         | 3      | A   | NONE       |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## Internal Chain of Custody

8101509 0100

| Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis | Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis |
|-------------|----------------|-------------|--------|-----|----------|-------------|----------------|-------------|--------|-----|----------|
| AD07137-005 | 10/26/18 12:13 | JW          | 3      | A   | IC       | AD07161-003 | 10/19/18 09:10 | AM          | 3      | M   | TDW/HG   |
| AD07137-005 | 10/26/18 17:18 | R12         | 3      | A   | NONE     | AD07161-003 | 10/19/18 10:46 | R12         | 3      | A   | NONE     |
| AD07137-005 | 10/16/18 17:24 | R12         | 4      | A   | NONE     | AD07161-003 | 10/26/18 17:18 | R12         | 4      | A   | NONE     |
| AD07137-005 | 10/17/18 08:47 | JMP         | 4      | A   | CN       | AD07161-003 | 10/17/18 17:18 | R12         | 5      | A   | NONE     |
| AD07137-005 | 10/17/18 12:23 | R12         | 4      | A   | NONE     | AD07161-003 | 10/26/18 13:48 | JW          | 5      | A   | IC       |
| AD07137-005 | 10/16/18 17:58 | R31         | 5      | A   | NONE     | AD07161-003 | 10/19/18 09:13 | R31         | 6      | A   | NONE     |
| AD07137-005 | 10/16/18 17:58 | R31         | 6      | A   | NONE     | AD07161-003 | 10/19/18 09:10 | R31         | 7      | A   | PH/CHECK |
| AD07137-005 | 10/22/18 08:45 | WP          | 6      | A   | VOA      | AD07161-003 | 10/19/18 09:13 | R31         | 8      | A   | NONE     |
| AD07137-005 | 10/16/18 17:58 | R31         | 7      | A   | NONE     | AD07161-003 | 10/27/18 15:55 | SG          | 8      | A   | VOA      |
| AD07137-006 | 10/16/18 16:05 | FRAN        | 0      | M   | Received | AD07161-004 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07137-006 | 10/16/18 16:11 | FRAN        | 0      | M   | Login    | AD07161-004 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |
| AD07137-006 | 10/16/18 17:24 | R12         | 1      | A   | NONE     | AD07161-004 | 10/17/18 17:18 | R12         | 1      | A   | NONE     |
| AD07137-006 | 10/18/18 09:32 | AM          | 1      | M   | TDW/HG   | AD07161-004 | 10/17/18 21:39 | PA          | 1      | A   | mix      |
| AD07137-006 | 10/18/18 10:33 | R12         | 1      | A   | NONE     | AD07161-004 | 10/17/18 21:39 | R12         | 1      | A   | NONE     |
| AD07137-006 | 10/23/18 10:18 | AM          | 1      | A   | tdwi     | AD07161-004 | 10/18/18 07:50 | JMP         | 1      | M   | solids   |
| AD07137-006 | 10/23/18 10:19 | R12         | 1      | A   | NONE     | AD07161-004 | 10/18/18 09:20 | R12         | 1      | A   | NONE     |
| AD07137-007 | 10/16/18 16:05 | FRAN        | 0      | M   | Received | AD07161-004 | 10/18/18 10:17 | BA          | 1      | A   | TDSI/HG  |
| AD07137-007 | 10/16/18 16:11 | FRAN        | 0      | M   | Login    | AD07161-004 | 10/18/18 12:57 | BA          | 1      | A   | R12      |
| AD07137-007 | 10/16/18 17:58 | R31         | 1      | A   | NONE     | AD07161-004 | 10/18/18 14:51 | JW          | 1      | A   | ic       |
| AD07137-007 | 10/16/18 17:58 | R31         | 2      | A   | NONE     | AD07161-004 | 10/19/18 11:08 | LV          | 1      | A   | BN/BNA   |
| AD07137-007 | 10/22/18 08:45 | WP          | 2      | A   | VOA      | AD07161-004 | 10/19/18 11:08 | R12         | 1      | A   | NONE     |
| AD07137-007 | 10/23/18 10:53 | WP          | 2      | A   | VOA      | AD07161-004 | 10/22/18 08:49 | JMP         | 1      | A   | cn       |
| AD07137-007 | 10/16/18 17:58 | R31         | 3      | A   | NONE     | AD07161-004 | 10/23/18 10:17 | AM          | 1      | A   | tdsi/hg  |
| AD07161-001 | 10/17/18 16:15 | FRAN        | 0      | M   | Received | AD07161-004 | 10/23/18 10:19 | R12         | 1      | A   | NONE     |
| AD07161-001 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    | AD07161-004 | 10/18/18 16:11 | F19         | 3      | A   | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12         | 1      | A   | NONE     | AD07161-004 | 10/30/18 16:48 | SG          | 3      | A   | VOA      |
| AD07161-001 | 10/22/18 12:14 | JN          | 1      | A   | BN/BNA   | AD07161-004 | 10/18/18 16:10 | R21         | 4      | A   | NONE     |
| AD07161-001 | 10/22/18 13:56 | R12         | 1      | A   | NONE     | AD07161-004 | 10/19/18 11:42 | WP          | 4      | A   | VOA      |
| AD07161-001 | 10/24/18 12:51 | JN          | 1      | A   | BN/BNA   | AD07161-004 | 10/19/18 12:47 | R31         | 4      | A   | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12         | 2      | A   | NONE     | AD07161-004 | 10/18/18 16:11 | F19         | 5      | A   | NONE     |
| AD07161-001 | 10/22/18 12:14 | JN          | 2      | A   | BN/BNA   | AD07161-004 | 10/26/18 12:51 | WP          | 5      | A   | VOA      |
| AD07161-001 | 10/17/18 17:18 | R12         | 3      | A   | NONE     | AD07161-005 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07161-001 | 10/18/18 09:32 | AM          | 3      | M   | TDW/HG   | AD07161-005 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |
| AD07161-001 | 10/18/18 10:33 | R12         | 3      | A   | NONE     | AD07161-005 | 10/17/18 17:18 | R12         | 1      | A   | NONE     |
| AD07161-001 | 10/19/18 09:10 | AM          | 3      | M   | TDW/HG   | AD07161-005 | 10/25/18 12:36 | JN          | 1      | A   | BN/BNA   |
| AD07161-001 | 10/19/18 10:46 | R12         | 3      | A   | NONE     | AD07161-005 | 10/17/18 17:18 | R12         | 2      | A   | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12         | 4      | A   | NONE     | AD07161-005 | 10/22/18 12:14 | JN          | 2      | A   | BN/BNA   |
| AD07161-001 | 10/26/18 13:48 | JW          | 4      | A   | IC       | AD07161-005 | 10/17/18 17:18 | R12         | 3      | A   | NONE     |
| AD07161-001 | 10/26/18 17:18 | R12         | 4      | A   | NONE     | AD07161-005 | 10/26/18 13:48 | JW          | 3      | A   | IC       |
| AD07161-001 | 10/17/18 17:18 | R12         | 5      | A   | NONE     | AD07161-005 | 10/26/18 17:18 | R12         | 3      | A   | NONE     |
| AD07161-001 | 10/19/18 09:10 | R31         | 6      | A   | PH/CHECK | AD07161-005 | 10/17/18 17:18 | R12         | 4      | A   | NONE     |
| AD07161-001 | 10/19/18 09:13 | R31         | 7      | A   | NONE     | AD07161-005 | 10/18/18 09:32 | AM          | 4      | M   | TDW/HG   |
| AD07161-001 | 10/27/18 15:55 | SG          | 7      | A   | VOA      | AD07161-005 | 10/18/18 10:33 | R12         | 4      | A   | NONE     |
| AD07161-001 | 10/19/18 09:13 | R31         | 8      | A   | NONE     | AD07161-005 | 10/19/18 09:10 | AM          | 4      | M   | TDW/HG   |
| AD07161-002 | 10/17/18 16:15 | FRAN        | 0      | M   | Received | AD07161-005 | 10/19/18 10:46 | R12         | 4      | A   | NONE     |
| AD07161-002 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    | AD07161-005 | 10/17/18 17:18 | R12         | 5      | A   | NONE     |
| AD07161-002 | 10/17/18 17:18 | R12         | 2      | A   | NONE     | AD07161-005 | 10/19/18 09:13 | R31         | 6      | A   | NONE     |
| AD07161-002 | 10/17/18 21:39 | R12         | 2      | A   | NONE     | AD07161-005 | 10/27/18 15:55 | SG          | 6      | A   | VOA      |
| AD07161-002 | 10/17/18 21:39 | PA          | 2      | A   | mix      | AD07161-005 | 10/19/18 09:13 | R31         | 7      | A   | NONE     |
| AD07161-002 | 10/18/18 07:50 | JMP         | 2      | M   | solids   | AD07161-005 | 10/19/18 09:10 | R31         | 8      | A   | PH/CHECK |
| AD07161-002 | 10/18/18 09:20 | R12         | 2      | A   | NONE     | AD07161-006 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07161-002 | 10/18/18 10:17 | BA          | 2      | A   | TDSI/HG  | AD07161-006 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |
| AD07161-002 | 10/18/18 12:57 | BA          | 2      | A   | R12      | AD07161-006 | 10/17/18 17:18 | R12         | 1      | A   | NONE     |
| AD07161-002 | 10/18/18 14:51 | JW          | 2      | A   | ic       | AD07161-006 | 10/23/18 10:17 | AM          | 1      | A   | tdsi/hg  |
| AD07161-002 | 10/19/18 11:08 | LV          | 2      | A   | BN/BNA   | AD07161-006 | 10/23/18 10:19 | R12         | 1      | A   | NONE     |
| AD07161-002 | 10/19/18 11:08 | R12         | 2      | A   | NONE     | AD07161-006 | 10/17/18 17:18 | R12         | 2      | A   | NONE     |
| AD07161-002 | 10/22/18 08:49 | JMP         | 2      | A   | cn       | AD07161-006 | 10/17/18 21:39 | R12         | 2      | A   | NONE     |
| AD07161-002 | 10/23/18 10:17 | AM          | 2      | A   | tdsi/hg  | AD07161-006 | 10/17/18 21:39 | PA          | 2      | A   | mix      |
| AD07161-002 | 10/23/18 10:19 | R12         | 2      | A   | NONE     | AD07161-006 | 10/18/18 07:50 | JMP         | 2      | M   | solids   |
| AD07161-002 | 10/18/18 16:10 | R21         | 3      | A   | NONE     | AD07161-006 | 10/18/18 09:20 | R12         | 2      | A   | NONE     |
| AD07161-002 | 10/19/18 11:42 | WP          | 3      | A   | VOA      | AD07161-006 | 10/18/18 10:17 | BA          | 2      | A   | TDSI/HG  |
| AD07161-002 | 10/19/18 12:47 | R31         | 3      | A   | NONE     | AD07161-006 | 10/18/18 12:57 | BA          | 2      | A   | R12      |
| AD07161-002 | 10/18/18 16:11 | F19         | 4      | A   | NONE     | AD07161-006 | 10/18/18 14:51 | JW          | 2      | A   | ic       |
| AD07161-002 | 10/26/18 12:51 | WP          | 4      | A   | VOA      | AD07161-006 | 10/19/18 11:08 | LV          | 2      | A   | BN/BNA   |
| AD07161-002 | 10/30/18 16:48 | SG          | 4      | A   | VOA      | AD07161-006 | 10/19/18 11:08 | R12         | 2      | A   | NONE     |
| AD07161-002 | 10/18/18 16:11 | F19         | 5      | A   | NONE     | AD07161-006 | 10/22/18 08:49 | JMP         | 2      | A   | cn       |
| AD07161-003 | 10/17/18 16:15 | FRAN        | 0      | M   | Received | AD07161-006 | 10/18/18 16:11 | F19         | 3      | A   | NONE     |
| AD07161-003 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    | AD07161-006 | 10/30/18 16:48 | SG          | 3      | A   | VOA      |
| AD07161-003 | 10/17/18 17:18 | R12         | 1      | A   | NONE     | AD07161-006 | 10/18/18 16:10 | R21         | 4      | A   | NONE     |
| AD07161-003 | 10/22/18 12:14 | JN          | 1      | A   | BN/BNA   | AD07161-006 | 10/19/18 11:42 | WP          | 4      | A   | VOA      |
| AD07161-003 | 10/17/18 17:18 | R12         | 2      | A   | NONE     | AD07161-006 | 10/19/18 12:47 | R31         | 4      | A   | NONE     |
| AD07161-003 | 10/25/18 12:36 | JN          | 2      | A   | BN/BNA   | AD07161-006 | 10/18/18 16:11 | F19         | 5      | A   | NONE     |
| AD07161-003 | 10/17/18 17:18 | R12         | 3      | A   | NONE     | AD07161-006 | 10/26/18 12:51 | WP          | 5      | A   | VOA      |
| AD07161-003 | 10/18/18 09:32 | AM          | 3      | M   | TDW/HG   | AD07161-007 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07161-003 | 10/18/18 10:33 | R12         | 3      | A   | NONE     | AD07161-007 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## Internal Chain of Custody

8101509 0101

| Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis |
|-------------|----------------|-------------------|-----------|---------|----------|
| AD07161-007 | 10/17/18 17:18 | R12               | 1         | A       | NONE     |
| AD07161-007 | 10/22/18 12:14 | JN                | 1         | A       | BN/BNA   |
| AD07161-007 | 10/17/18 17:18 | R12               | 2         | A       | NONE     |
| AD07161-007 | 10/25/18 12:36 | JN                | 2         | A       | BN/BNA   |
| AD07161-007 | 10/17/18 17:18 | R12               | 3         | A       | NONE     |
| AD07161-007 | 10/18/18 09:32 | AM                | 3         | M       | TDW/HG   |
| AD07161-007 | 10/18/18 10:33 | R12               | 3         | A       | NONE     |
| AD07161-007 | 10/19/18 09:10 | AM                | 3         | M       | TDW/HG   |
| AD07161-007 | 10/19/18 10:46 | R12               | 3         | A       | NONE     |
| AD07161-007 | 10/17/18 17:18 | R12               | 4         | A       | NONE     |
| AD07161-007 | 10/26/18 13:48 | JW                | 4         | A       | IC       |
| AD07161-007 | 10/26/18 17:18 | R12               | 4         | A       | NONE     |
| AD07161-007 | 10/17/18 17:18 | R12               | 5         | A       | NONE     |
| AD07161-007 | 10/19/18 09:13 | R31               | 6         | A       | NONE     |
| AD07161-007 | 10/27/18 15:55 | SG                | 6         | A       | VOA      |
| AD07161-007 | 10/19/18 09:13 | R31               | 7         | A       | NONE     |
| AD07161-007 | 10/19/18 09:10 | R31               | 8         | A       | PH/CHECK |
| AD07161-008 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07161-008 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |
| AD07161-008 | 10/17/18 17:18 | R12               | 1         | A       | NONE     |
| AD07161-008 | 10/26/18 13:48 | JW                | 1         | A       | IC       |
| AD07161-008 | 10/26/18 17:18 | R12               | 1         | A       | NONE     |
| AD07161-008 | 10/17/18 17:18 | R12               | 2         | A       | NONE     |
| AD07161-008 | 10/17/18 17:18 | R12               | 3         | A       | NONE     |
| AD07161-008 | 10/22/18 12:14 | JN                | 3         | A       | BN/BNA   |
| AD07161-008 | 10/17/18 17:18 | R12               | 4         | A       | NONE     |
| AD07161-008 | 10/25/18 12:36 | JN                | 4         | A       | BN/BNA   |
| AD07161-008 | 10/17/18 17:18 | R12               | 5         | A       | NONE     |
| AD07161-008 | 10/18/18 09:32 | AM                | 5         | M       | TDW/HG   |
| AD07161-008 | 10/18/18 10:33 | R12               | 5         | A       | NONE     |
| AD07161-008 | 10/19/18 09:10 | AM                | 5         | M       | TDW/HG   |
| AD07161-008 | 10/19/18 10:46 | R12               | 5         | A       | NONE     |
| AD07161-008 | 10/19/18 09:13 | R31               | 6         | A       | NONE     |
| AD07161-008 | 10/27/18 15:55 | SG                | 6         | A       | VOA      |
| AD07161-008 | 10/19/18 09:13 | R31               | 7         | A       | NONE     |
| AD07161-008 | 10/19/18 09:10 | R31               | 8         | A       | PH/CHECK |
| AD07161-009 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07161-009 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |
| AD07161-009 | 10/17/18 17:18 | R12               | 4         | A       | NONE     |
| AD07161-009 | 10/17/18 17:18 | R12               | 5         | A       | NONE     |
| AD07161-009 | 10/17/18 21:39 | PA                | 5         | A       | mix      |
| AD07161-009 | 10/17/18 21:39 | R12               | 5         | A       | NONE     |
| AD07161-009 | 10/18/18 07:50 | JMP               | 5         | M       | solids   |
| AD07161-009 | 10/18/18 09:20 | R12               | 5         | A       | NONE     |
| AD07161-009 | 10/18/18 10:17 | BA                | 5         | A       | TDSI/HG  |
| AD07161-009 | 10/18/18 12:57 | BA                | 5         | A       | R12      |
| AD07161-009 | 10/18/18 14:51 | JW                | 5         | A       | ic       |
| AD07161-009 | 10/19/18 11:08 | LV                | 5         | A       | BN/BNA   |
| AD07161-009 | 10/19/18 11:08 | R12               | 5         | A       | NONE     |
| AD07161-009 | 10/22/18 08:49 | JMP               | 5         | A       | cn       |
| AD07161-009 | 10/23/18 10:17 | AM                | 5         | A       | ldsi/hg  |
| AD07161-009 | 10/23/18 10:19 | R12               | 5         | A       | NONE     |
| AD07161-009 | 10/18/18 16:10 | R21               | 6         | A       | NONE     |
| AD07161-009 | 10/19/18 11:42 | WP                | 6         | A       | VOA      |
| AD07161-009 | 10/19/18 12:47 | R31               | 6         | A       | NONE     |
| AD07161-009 | 10/18/18 16:11 | F19               | 7         | A       | NONE     |
| AD07161-009 | 10/26/18 12:51 | WP                | 7         | A       | VOA      |
| AD07161-009 | 10/18/18 16:11 | F19               | 8         | A       | NONE     |
| AD07161-009 | 10/30/18 16:48 | SG                | 8         | A       | VOA      |
| AD07161-010 | 10/17/18 16:15 | RICAR             | 0         | M       | Received |
| AD07161-010 | 10/18/18 15:55 | RICAR             | 0         | M       | Login    |
| AD07161-010 | 10/19/18 09:13 | R31               | 1         | A       | NONE     |
| AD07161-010 | 10/24/18 13:24 | WP                | 1         | A       | VOA      |
| AD07161-010 | 10/19/18 09:13 | R31               | 2         | A       | NONE     |
| AD07161-010 | 10/19/18 09:10 | R31               | 3         | A       | PH/CHECK |
| AD07325-001 | 10/24/18 21:04 | RICAR             | 0         | M       | Received |
| AD07325-001 | 10/25/18 12:26 | RICAR             | 0         | M       | Login    |
| AD07325-001 | 10/29/18 08:29 | JMP               | 1         | A       | sulfide  |
| AD07325-001 | 10/29/18 11:39 | R12               | 1         | M       | NONE     |
| AD07325-002 | 10/24/18 21:04 | RICAR             | 0         | M       | Received |
| AD07325-002 | 10/25/18 12:26 | RICAR             | 0         | M       | Login    |
| AD07325-002 | 10/29/18 08:29 | JMP               | 1         | A       | sulfide  |
| AD07325-002 | 10/29/18 11:39 | R12               | 1         | M       | NONE     |
| AD07325-003 | 10/24/18 21:04 | RICAR             | 0         | M       | Received |
| AD07325-003 | 10/25/18 12:26 | RICAR             | 0         | M       | Login    |

| Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis |
|-------------|----------------|-------------------|-----------|---------|----------|
| AD07325-003 | 10/29/18 08:29 | JMP               | 1         | A       | sulfide  |
| AD07325-003 | 10/29/18 11:39 | R12               | 1         | M       | NONE     |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login



## **GC/MS Base Neutral/Acid Extractable Data**

**GC/MS Base Neutral/Acid Extractable Data  
QC Summary**

## FORM2

Surrogate Recovery

Method: EPA 8270D

| Dfile      | Sample#          | Matrix | Date/Time      | Surr<br>Dil | Dilute<br>Out<br>Flag | Column1<br>S1<br>Recov | Column1<br>S2<br>Recov | Column1<br>S3<br>Recov | Column1<br>S4<br>Recov | Column1<br>S5<br>Recov | Column1<br>S6<br>Recov |
|------------|------------------|--------|----------------|-------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 9M88665.D  | SMB71480         | S      | 10/19/18 18:17 | 1           |                       | 109                    | 112                    | 104                    | 111                    | 109                    | 122                    |
| 9M88680.D  | AD07161-002      | S      | 10/20/18 00:07 | 1           |                       | 97                     | 99                     | 98                     | 102                    | 110                    | 115                    |
| 9M88681.D  | AD07161-004      | S      | 10/20/18 00:31 | 1           |                       | 104                    | 105                    | 86                     | 86                     | 89                     | 90                     |
| 9M88682.D  | AD07161-006      | S      | 10/20/18 00:54 | 1           |                       | 109                    | 111                    | 102                    | 111                    | 118                    | 129                    |
| 9M88683.D  | AD07161-009      | S      | 10/20/18 01:17 | 1           |                       | 111                    | 115                    | 108                    | 111                    | 118                    | 127                    |
| 10M71458.D | SMB71480(MS)     | S      | 10/19/18 18:08 | 1           |                       | 119                    | 124                    | 102                    | 110                    | 115                    | 116                    |
| 10M71459.D | AD07136-003      | S      | 10/19/18 18:30 | 1           |                       | 106                    | 108                    | 103                    | 107                    | 107                    | 103                    |
| 10M71460.D | AD07136-003(MS)  | S      | 10/19/18 18:52 | 1           |                       | 114                    | 117                    | 111                    | 115                    | 114                    | 111                    |
| 10M71461.D | AD07136-003(MSD) | S      | 10/19/18 19:14 | 1           |                       | 117                    | 124                    | 107                    | 105                    | 117                    | 119                    |

Flags: SD=Surrogate diluted out

\*=Surrogate out

Method: EPA 8270D

## Soil Laboratory Limits

| Compound                | Spike<br>Amt | Limits |
|-------------------------|--------------|--------|
| S1=2-Fluorophenol       | 100          | 43-128 |
| S2=Phenol-d5            | 100          | 49-129 |
| S3=Nitrobenzene-d5      | 50           | 52-129 |
| S4=2-Fluorobiphenyl     | 50           | 58-125 |
| S5=2,4,6-Tribromophenol | 100          | 54-145 |
| S6=Terphenyl-d14        | 50           | 58-148 |

## FORM2

## Surrogate Recovery

Method: EPA 625.1

| Dfile      | Sample#             | Matrix | Date/Time      | Surr<br>Dil | Dilute<br>Out<br>Flag | Column1<br>S1<br>Recov | Column1<br>S2<br>Recov | Column1<br>S3<br>Recov | Column1<br>S4<br>Recov | Column1<br>S5<br>Recov | Column1<br>S6<br>Recov |
|------------|---------------------|--------|----------------|-------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 5M105872.D | WMB71471            | A      | 10/19/18 10:48 | 1           |                       | 35                     | 23 *                   | 59                     | 64                     | 57                     | 82                     |
| 5M105913.D | WMB71496            | A      | 10/22/18 14:49 | 0.5         |                       | 42                     | 28                     | 69                     | 74                     | 70                     | 96                     |
| 5M105877.D | AD07118-001         | A      | 10/19/18 12:44 | 1           |                       | 41                     | 27                     | 64                     | 70                     | 66                     | 85                     |
| 10M71486.D | AD07118-003(R)      | A      | 10/22/18 16:15 | 1           |                       | 25 *                   | 17 *                   | 90                     | 105                    | 35 *                   | 115                    |
| 5M105878.D | AD07118-003         | A      | 10/19/18 13:08 | 1           |                       | 30                     | 21 *                   | 46 *                   | 54                     | 55                     | 72                     |
| 5M105879.D | AD07118-005         | A      | 10/19/18 13:31 | 1           |                       | 36                     | 24 *                   | 61                     | 67                     | 67                     | 88                     |
| 5M105880.D | AD07118-007         | A      | 10/19/18 13:55 | 1           |                       | 33                     | 22 *                   | 59                     | 60                     | 57                     | 75                     |
| 10M71439.D | WMB71471(MS)        | A      | 10/19/18 10:35 | 1           |                       | 41                     | 31                     | 72                     | 77                     | 76                     | 84                     |
| 10M71441.D | AD07093-001(T)      | A      | 10/19/18 11:20 | 1           |                       | 73                     | 69                     | 74                     | 79                     | 81                     | 80                     |
| 10M71442.D | AD07093-001(T)(MS)  | A      | 10/19/18 11:42 | 1           |                       | 6.7 *                  | 10 *                   | 70                     | 64                     | 17 *                   | 85                     |
| 10M71443.D | AD07093-001(T)(MSD) | A      | 10/19/18 12:04 | 1           |                       | 78                     | 81                     | 86                     | 82                     | 94                     | 94                     |
| 5M105911.D | WMB71496(MS)        | A      | 10/22/18 14:01 | 1           |                       | 91                     | 60                     | 149 *                  | 142 *                  | 144                    | 170 *                  |

Flags: SD=Surrogate diluted out

\*=Surrogate out

Method: EPA 625.1

## Aqueous Laboratory Limits

| Compound                | Spike<br>Amt | Limits |
|-------------------------|--------------|--------|
| S1=2-Fluorophenol       | 100          | 29-113 |
| S2=Phenol-d5            | 100          | 27-115 |
| S3=Nitrobenzene-d5      | 50           | 51-139 |
| S4=2-Fluorobiphenyl     | 50           | 53-129 |
| S5=2,4,6-Tribromophenol | 100          | 54-149 |
| S6=Terphenyl-d14        | 50           | 55-146 |

## FORM2

## Surrogate Recovery

Method: EPA 625.1

| Dfile                         | Sample# | Matrix | Date/Time      | Surr<br>Dil | Dilute<br>Out<br>Flag | Column1<br>S1<br>Recov | Column1<br>S2<br>Recov | Column1<br>S3<br>Recov | Column1<br>S4<br>Recov | Column1<br>S5<br>Recov | Column1<br>S6<br>Recov |
|-------------------------------|---------|--------|----------------|-------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 5M105881.DWMB71479            |         | A      | 10/19/18 14:23 | 1           |                       | 35                     | 23*                    | 55                     | 62                     | 56                     | 77                     |
| 5M105905.DAD07137-001         |         | A      | 10/22/18 11:41 | 1           |                       | 33                     | 22*                    | 48*                    | 51*                    | 52*                    | 59                     |
| 5M105957.DAD07137-001(R)      |         | A      | 10/24/18 14:03 | 1           |                       | 33                     | 22*                    | 50*                    | 56                     | 49*                    | 66                     |
| 5M105906.DAD07137-003         |         | A      | 10/22/18 12:04 | 1           |                       | 70                     | 47                     | 106                    | 109                    | 114                    | 136                    |
| 5M105907.DAD07137-005         |         | A      | 10/22/18 12:28 | 1           |                       | 39                     | 25*                    | 60                     | 65                     | 63                     | 78                     |
| 5M105897.DAD06939-001(T)      |         | A      | 10/22/18 08:35 | 1           |                       | 47                     | 36                     | 59                     | 58                     | 62                     | 76                     |
| 5M105898.DAD06939-001(T)(MS)  |         | A      | 10/22/18 08:58 | 1           |                       | 75                     | 73                     | 86                     | 75                     | 94                     | 105                    |
| 5M105899.DAD06939-001(T)(MSD) |         | A      | 10/22/18 09:21 | 1           |                       | 70                     | 66                     | 85                     | 69                     | 93                     | 99                     |
| 7M95306.DWMB71479(MS)         |         | A      | 10/19/18 14:26 | 1           |                       | 39                     | 26*                    | 69                     | 72                     | 73                     | 79                     |

Flags: SD=Surrogate diluted out

\*=Surrogate out

Method: EPA 625.1

## Aqueous Laboratory Limits

| Compound                | Spike<br>Amt | Limits |
|-------------------------|--------------|--------|
| S1=2-Fluorophenol       | 100          | 29-113 |
| S2=Phenol-d5            | 100          | 27-115 |
| S3=Nitrobenzene-d5      | 50           | 51-139 |
| S4=2-Fluorobiphenyl     | 50           | 53-129 |
| S5=2,4,6-Tribromophenol | 100          | 54-149 |
| S6=Terphenyl-d14        | 50           | 55-146 |

## FORM2

## Surrogate Recovery

Method: EPA 625.1

| Dfile      | Sample#          | Matrix | Date/Time      | Surr<br>Dil | Dilute<br>Out<br>Flag | Column1<br>S1<br>Recov | Column1<br>S2<br>Recov | Column1<br>S3<br>Recov | Column1<br>S4<br>Recov | Column1<br>S5<br>Recov | Column1<br>S6<br>Recov |
|------------|------------------|--------|----------------|-------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 5M105969.D | WMB71518         | A      | 10/25/18 10:28 | 1           |                       | 52                     | 32                     | 83                     | 87                     | 69                     | 104                    |
| 5M105980.D | WMB71532         | A      | 10/25/18 14:53 | 1           |                       | 46                     | 31                     | 75                     | 75                     | 69                     | 101                    |
| 7M95313.D  | WMB71497         | A      | 10/23/18 11:54 | 1           |                       | 38                     | 25*                    | 60                     | 66                     | 54                     | 76                     |
| 5M105976.D | AD07161-001(R)   | A      | 10/25/18 13:19 | 1           |                       | 63                     | 53                     | 80                     | 81                     | 64                     | 104                    |
| 7M95317.D  | AD07161-003      | A      | 10/24/18 09:32 | 1           |                       | 15*                    | 9.4*                   | 42*                    | 46*                    | 31*                    | 49*                    |
| 7M95353.D  | AD07161-003(R)   | A      | 10/26/18 13:16 | 1           |                       | 22*                    | 15*                    | 61                     | 57                     | 57                     | 82                     |
| 7M95318.D  | AD07161-005      | A      | 10/24/18 09:55 | 1           |                       | 25*                    | 18*                    | 41*                    | 45*                    | 43*                    | 49*                    |
| 7M95354.D  | AD07161-005(R)   | A      | 10/26/18 13:38 | 1           |                       | 35                     | 26*                    | 57                     | 60                     | 64                     | 77                     |
| 7M95319.D  | AD07161-007      | A      | 10/24/18 10:18 | 1           |                       | 30                     | 21*                    | 43*                    | 45*                    | 46*                    | 52*                    |
| 7M95355.D  | AD07161-007(R)   | A      | 10/26/18 14:01 | 1           |                       | 40                     | 28                     | 68                     | 73                     | 73                     | 89                     |
| 7M95320.D  | AD07161-008      | A      | 10/24/18 10:41 | 1           |                       | 16*                    | 10*                    | 44*                    | 47*                    | 35*                    | 50*                    |
| 7M95356.D  | AD07161-008(R)   | A      | 10/26/18 14:25 | 1           |                       | 15*                    | 12*                    | 68                     | 73                     | 57                     | 100                    |
| 5M105925.D | WMB71497(MS)     | A      | 10/23/18 09:35 | 1           |                       | 34                     | 23*                    | 69                     | 66                     | 75                     | 77                     |
| 5M105927.D | AD07161-001      | A      | 10/23/18 10:21 | 1           |                       | 14*                    | 9.1*                   | 35*                    | 39*                    | 28*                    | 48*                    |
| 5M105928.D | AD07161-001(MS)  | A      | 10/23/18 10:45 | 1           |                       | 50                     | 49                     | 55                     | 53                     | 63                     | 70                     |
| 5M105929.D | AD07161-001(MSD) | A      | 10/23/18 11:08 | 1           |                       | 40                     | 40                     | 52                     | 46*                    | 60                     | 64                     |
| 5M105968.D | WMB71518(MS)     | A      | 10/25/18 10:04 | 1           |                       | 59                     | 36                     | 102                    | 99                     | 100                    | 107                    |
| 5M105990.D | WMB71532(MS)     | A      | 10/26/18 09:22 | 1           |                       | 58                     | 37                     | 109                    | 105                    | 106                    | 121                    |

Flags: SD=Surrogate diluted out

\*=Surrogate out

Method: EPA 625.1

## Aqueous Laboratory Limits

| Compound                | Spike<br>Amt | Limits |
|-------------------------|--------------|--------|
| S1=2-Fluorophenol       | 100          | 29-113 |
| S2=Phenol-d5            | 100          | 27-115 |
| S3=Nitrobenzene-d5      | 50           | 51-139 |
| S4=2-Fluorobiphenyl     | 50           | 53-129 |
| S5=2,4,6-Tribromophenol | 100          | 54-149 |
| S6=Terphenyl-d14        | 50           | 55-146 |

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71471

8101509 0108

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71439.D    |     | WMB71471(MS)    |             | 10/19/2018 10:35:00 A |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 58.7193         | 0           | 100                   | 59       | 20          | 160         |
| Pyridine                    | 1   | 21.4565         | 0           | 100                   | 21       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 54.1138         | 0           | 100                   | 54       | 20          | 150         |
| Benzaldehyde                | 1   | 133.308         | 0           | 100                   | 133      | 20          | 234         |
| Aniline                     | 1   | 57.4314         | 0           | 100                   | 57       | 20          | 150         |
| Pentachloroethane           | 1   | 86.0463         | 0           | 100                   | 86       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 78.9651         | 0           | 100                   | 79       | 43          | 126         |
| Phenol                      | 1   | 41.2804         | 0           | 100                   | 41       | 17          | 120         |
| 2-Chlorophenol              | 1   | 80.223          | 0           | 100                   | 80       | 36          | 120         |
| N-Decane                    | 1   | 77.6748         | 0           | 100                   | 78       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 75.4158         | 0           | 100                   | 75       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 78.4649         | 0           | 100                   | 78       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 77.3967         | 0           | 100                   | 77       | 25          | 130         |
| Benzyl alcohol              | 1   | 84.5033         | 0           | 100                   | 85       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 72.7897         | 0           | 100                   | 73       | 63          | 139         |
| 2-Methylphenol              | 1   | 77.3698         | 0           | 100                   | 77       | 35          | 130         |
| Acetophenone                | 1   | 103.3882        | 0           | 100                   | 103      | 50          | 130         |
| Hexachloroethane            | 1   | 79.9235         | 0           | 100                   | 80       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.0365         | 0           | 100                   | 84       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 79.0404         | 0           | 100                   | 79       | 30          | 130         |
| Nitrobenzene                | 1   | 88.2765         | 0           | 100                   | 88       | 54          | 158         |
| Isophorone                  | 1   | 87.8729         | 0           | 100                   | 88       | 47          | 180         |
| 2-Nitrophenol               | 1   | 94.2597         | 0           | 100                   | 94       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 84.1755         | 0           | 100                   | 84       | 42          | 120         |
| Benzoic Acid                | 1   | 13.5158         | 0           | 100                   | 14       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 87.4569         | 0           | 100                   | 87       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 94.4443         | 0           | 100                   | 94       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 86.4136         | 0           | 100                   | 86       | 57          | 130         |
| Naphthalene                 | 1   | 90.456          | 0           | 100                   | 90       | 36          | 120         |
| 4-Chloroaniline             | 1   | 112.8356        | 0           | 100                   | 113      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 82.9372         | 0           | 100                   | 83       | 38          | 120         |
| Caprolactam                 | 1   | 49.153          | 0           | 100                   | 49       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 101.289         | 0           | 100                   | 101      | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 93.7869         | 0           | 100                   | 94       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 107.6412        | 0           | 100                   | 108      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 90.2454         | 0           | 100                   | 90       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 101.2096        | 0           | 100                   | 101      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 81.8697         | 0           | 100                   | 82       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 95.547          | 0           | 100                   | 96       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 96.6632         | 0           | 100                   | 97       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 89.6118         | 0           | 100                   | 90       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 88.6287         | 0           | 100                   | 89       | 50          | 130         |
| Diphenyl Ether              | 1   | 106.2983        | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.7805         | 0           | 100                   | 98       | 40          | 150         |
| Coumarin                    | 1   | 102.3881        | 0           | 100                   | 102      | 1           | 180         |
| Acenaphthylene              | 1   | 99.4373         | 0           | 100                   | 99       | 54          | 126         |
| Dimethylphthalate           | 1   | 91.0318         | 0           | 100                   | 91       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.0558         | 0           | 100                   | 94       | 68          | 137         |
| Acenaphthene                | 1   | 88.9111         | 0           | 100                   | 89       | 60          | 132         |
| 3-Nitroaniline              | 1   | 105.7086        | 0           | 100                   | 106      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 82.7426         | 0           | 100                   | 83       | 1           | 173         |
| Dibenzofuran                | 1   | 94.0314         | 0           | 100                   | 94       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 85.0567         | 0           | 100                   | 85       | 48          | 127         |
| 4-Nitrophenol               | 1   | 43.384          | 0           | 100                   | 43       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 87.684          | 0           | 100                   | 88       | 50          | 130         |
| Fluorene                    | 1   | 88.324          | 0           | 100                   | 88       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 88.7056         | 0           | 100                   | 89       | 38          | 145         |
| Diethylphthalate            | 1   | 87.6197         | 0           | 100                   | 88       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.6938         | 0           | 100                   | 98       | 40          | 150         |
| Atrazine                    | 1   | 88.4145         | 0           | 100                   | 88       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 103.9226        | 0           | 100                   | 104      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

**8101509 0109**

QC Batch: WMB71471

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.6501  | 0 | 100 | 78  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 96.8691  | 0 | 100 | 97  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 94.4694  | 0 | 100 | 94  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.1156  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 94.1389  | 0 | 100 | 94  | 50 | 130 |
| Pentachlorophenol          | 1 | 104.599  | 0 | 100 | 105 | 38 | 152 |
| Phenanthrene               | 1 | 92.2224  | 0 | 100 | 92  | 65 | 120 |
| Anthracene                 | 1 | 89.6239  | 0 | 100 | 90  | 43 | 120 |
| Carbazole                  | 1 | 104.6686 | 0 | 100 | 105 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 91.0111  | 0 | 100 | 91  | 8  | 120 |
| Fluoranthene               | 1 | 95.9092  | 0 | 100 | 96  | 43 | 121 |
| Pyrene                     | 1 | 95.8684  | 0 | 100 | 96  | 70 | 120 |
| Benzidine                  | 1 | 22.1051  | 0 | 100 | 22  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 94.1343  | 0 | 100 | 94  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 93.097   | 0 | 100 | 93  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 92.4141  | 0 | 100 | 92  | 42 | 133 |
| Chrysene                   | 1 | 86.1945  | 0 | 100 | 86  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.0988  | 0 | 100 | 98  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 93.4639  | 0 | 100 | 93  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 93.5776  | 0 | 100 | 94  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 96.4853  | 0 | 100 | 96  | 25 | 146 |
| Benzo[a]pyrene             | 1 | 89.348   | 0 | 100 | 89  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 92.0281  | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 95.4942  | 0 | 100 | 95  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 91.2238  | 0 | 100 | 91  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

|                             |              |                       |
|-----------------------------|--------------|-----------------------|
| Data File                   | Sample ID:   | Analysis Date         |
| Spike or Dup: 7M95306.D     | WMB71479(MS) | 10/19/2018 2:26:00 PM |
| Non Spike (If applicable):  |              |                       |
| Inst Blank (If applicable): |              |                       |

Method: 625.1

Matrix: Aqueous

QC Type: MBS

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 69.0027    | 0           | 100           | 69       | 20          | 160         |
| Pyridine                    | 1   | 36.267     | 0           | 100           | 36       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 58.1228    | 0           | 100           | 58       | 20          | 150         |
| Benzaldehyde                | 1   | 136.4587   | 0           | 100           | 136      | 20          | 234         |
| Aniline                     | 1   | 78.1613    | 0           | 100           | 78       | 20          | 150         |
| Pentachloroethane           | 1   | 88.4306    | 0           | 100           | 88       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 78.9094    | 0           | 100           | 79       | 43          | 126         |
| Phenol                      | 1   | 39.122     | 0           | 100           | 39       | 17          | 120         |
| 2-Chlorophenol              | 1   | 75.2627    | 0           | 100           | 75       | 36          | 120         |
| N-Decane                    | 1   | 75.1357    | 0           | 100           | 75       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 72.4267    | 0           | 100           | 72       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 81.4073    | 0           | 100           | 81       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 81.6788    | 0           | 100           | 82       | 25          | 130         |
| Benzyl alcohol              | 1   | 82.4281    | 0           | 100           | 82       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 73.6381    | 0           | 100           | 74       | 63          | 139         |
| 2-Methylphenol              | 1   | 77.8179    | 0           | 100           | 78       | 35          | 130         |
| Acetophenone                | 1   | 106.7914   | 0           | 100           | 107      | 50          | 130         |
| Hexachloroethane            | 1   | 79.8436    | 0           | 100           | 80       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 78.982     | 0           | 100           | 79       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 72.799     | 0           | 100           | 73       | 30          | 130         |
| Nitrobenzene                | 1   | 92.0091    | 0           | 100           | 92       | 54          | 158         |
| Isophorone                  | 1   | 89.7629    | 0           | 100           | 90       | 47          | 180         |
| 2-Nitrophenol               | 1   | 92.9104    | 0           | 100           | 93       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 87.4787    | 0           | 100           | 87       | 42          | 120         |
| Benzoic Acid                | 1   | 21.532     | 0           | 100           | 22       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 86.8441    | 0           | 100           | 87       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 91.7642    | 0           | 100           | 92       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 87.4633    | 0           | 100           | 87       | 57          | 130         |
| Naphthalene                 | 1   | 83.3188    | 0           | 100           | 83       | 36          | 120         |
| 4-Chloroaniline             | 1   | 114.0252   | 0           | 100           | 114      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 86.7801    | 0           | 100           | 87       | 38          | 120         |
| Caprolactam                 | 1   | 52.5262    | 0           | 100           | 53       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 93.2287    | 0           | 100           | 93       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 94.1586    | 0           | 100           | 94       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 114.3009   | 0           | 100           | 114      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 95.484     | 0           | 100           | 95       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 114.2755   | 0           | 100           | 114      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 101.6695   | 0           | 100           | 102      | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 102.3739   | 0           | 100           | 102      | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 93.077     | 0           | 100           | 93       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 89.7704    | 0           | 100           | 90       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 96.6729    | 0           | 100           | 97       | 50          | 130         |
| Diphenyl Ether              | 1   | 114.7718   | 0           | 100           | 115      | 50          | 140         |
| 2-Nitroaniline              | 1   | 106.9342   | 0           | 100           | 107      | 40          | 150         |
| Coumarin                    | 1   | 107.9373   | 0           | 100           | 108      | 1           | 180         |
| Acenaphthylene              | 1   | 98.4582    | 0           | 100           | 98       | 54          | 126         |
| Dimethylphthalate           | 1   | 92.738     | 0           | 100           | 93       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 95.9042    | 0           | 100           | 96       | 68          | 137         |
| Acenaphthene                | 1   | 92.2175    | 0           | 100           | 92       | 60          | 132         |
| 3-Nitroaniline              | 1   | 115.917    | 0           | 100           | 116      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 112.3621   | 0           | 100           | 112      | 1           | 173         |
| Dibenzofuran                | 1   | 97.1048    | 0           | 100           | 97       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 92.2794    | 0           | 100           | 92       | 48          | 127         |
| 4-Nitrophenol               | 1   | 50.0916    | 0           | 100           | 50       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 86.9346    | 0           | 100           | 87       | 50          | 130         |
| Fluorene                    | 1   | 90.6281    | 0           | 100           | 91       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 90.2356    | 0           | 100           | 90       | 38          | 145         |
| Diethylphthalate            | 1   | 90.3525    | 0           | 100           | 90       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.5264    | 0           | 100           | 98       | 40          | 150         |
| Atrazine                    | 1   | 100.6168   | 0           | 100           | 101      | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 118.5253   | 0           | 100           | 119      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 76.0463  | 0 | 100 | 76  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 92.6807  | 0 | 100 | 93  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 90.3439  | 0 | 100 | 90  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.3596  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 97.6617  | 0 | 100 | 98  | 50 | 130 |
| Pentachlorophenol          | 1 | 95.0418  | 0 | 100 | 95  | 38 | 152 |
| Phenanthrene               | 1 | 91.2947  | 0 | 100 | 91  | 65 | 120 |
| Anthracene                 | 1 | 91.7377  | 0 | 100 | 92  | 43 | 120 |
| Carbazole                  | 1 | 106.2112 | 0 | 100 | 106 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.5892  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 92.048   | 0 | 100 | 92  | 43 | 121 |
| Pyrene                     | 1 | 94.7814  | 0 | 100 | 95  | 70 | 120 |
| Benzydine                  | 1 | 16.9657  | 0 | 100 | 17  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 90.2116  | 0 | 100 | 90  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 90.5397  | 0 | 100 | 91  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 91.8853  | 0 | 100 | 92  | 42 | 133 |
| Chrysene                   | 1 | 87.2932  | 0 | 100 | 87  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 89.4472  | 0 | 100 | 89  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 85.1444  | 0 | 100 | 85  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 88.9253  | 0 | 100 | 89  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 100.1275 | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 90.9848  | 0 | 100 | 91  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.6849  | 0 | 100 | 94  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 94.6008  | 0 | 100 | 95  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 93.6662  | 0 | 100 | 94  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: SMB71480

8101509 0112

| Data File                   |     | Sample ID:   |             | Analysis Date         |          |             |             |
|-----------------------------|-----|--------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71458.D    |     | SMB71480(MS) |             | 10/19/2018 6:08:00 PM |          |             |             |
| Non Spike(If applicable):   |     |              |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |              |             |                       |          |             |             |
| Method: 8270D               |     | Matrix: Soil |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc   | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                    | 1   | 28.202       | 0           | 50                    | 56       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 39.3025      | 0           | 50                    | 79       | 50          | 130         |
| Benzaldehyde                | 1   | 72.143       | 0           | 50                    | 144      | 20          | 220         |
| Aniline                     | 1   | 23.9218      | 0           | 50                    | 48       | 20          | 150         |
| Pentachloroethane           | 1   | 44.8925      | 0           | 50                    | 90       | 50          | 130         |
| bis(2-Chloroethyl)ether     | 1   | 42.9403      | 0           | 50                    | 86       | 50          | 130         |
| Phenol                      | 1   | 91.3638      | 0           | 100                   | 91       | 20          | 150         |
| 2-Chlorophenol              | 1   | 90.7398      | 0           | 100                   | 91       | 50          | 130         |
| N-Decane                    | 1   | 38.1105      | 0           | 50                    | 76       | 20          | 130         |
| 1,3-Dichlorobenzene         | 1   | 40.6487      | 0           | 50                    | 81       | 60          | 130         |
| 1,4-Dichlorobenzene         | 1   | 40.0966      | 0           | 50                    | 80       | 60          | 130         |
| 1,2-Dichlorobenzene         | 1   | 40.3895      | 0           | 50                    | 81       | 50          | 130         |
| Benzyl alcohol              | 1   | 43.4013      | 0           | 50                    | 87       | 20          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 35.8778      | 0           | 50                    | 72       | 40          | 130         |
| 2-Methylphenol              | 1   | 90.1464      | 0           | 100                   | 90       | 50          | 130         |
| Acetophenone                | 1   | 50.4493      | 0           | 50                    | 101      | 50          | 130         |
| Hexachloroethane            | 1   | 41.5687      | 0           | 50                    | 83       | 50          | 130         |
| N-Nitroso-di-n-propylamine  | 1   | 44.6399      | 0           | 50                    | 89       | 40          | 130         |
| 3&4-Methylphenol            | 1   | 99.9003      | 0           | 100                   | 100      | 70          | 130         |
| Nitrobenzene                | 1   | 42.5702      | 0           | 50                    | 85       | 70          | 130         |
| Isophorone                  | 1   | 42.2394      | 0           | 50                    | 84       | 60          | 130         |
| 2-Nitrophenol               | 1   | 83.9975      | 0           | 100                   | 84       | 70          | 130         |
| 2,4-Dimethylphenol          | 1   | 87.1553      | 0           | 100                   | 87       | 50          | 130         |
| Benzoic Acid                | 1   | 46.3262      | 0           | 100                   | 46       | 20          | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 43.5543      | 0           | 50                    | 87       | 60          | 130         |
| 2,4-Dichlorophenol          | 1   | 89.009       | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene      | 1   | 42.1855      | 0           | 50                    | 84       | 50          | 130         |
| Naphthalene                 | 1   | 42.4433      | 0           | 50                    | 85       | 50          | 130         |
| 4-Chloroaniline             | 1   | 29.9013      | 0           | 50                    | 60       | 10          | 150         |
| Hexachlorobutadiene         | 1   | 40.0143      | 0           | 50                    | 80       | 60          | 130         |
| Caprolactam                 | 1   | 51.6812      | 0           | 50                    | 103      | 50          | 130         |
| 4-Chloro-3-methylphenol     | 1   | 92.0829      | 0           | 100                   | 92       | 50          | 130         |
| 2-Methylnaphthalene         | 1   | 42.5668      | 0           | 50                    | 85       | 70          | 130         |
| 1-Methylnaphthalene         | 1   | 49.1462      | 0           | 50                    | 98       | 70          | 130         |
| 1,1'-Biphenyl               | 1   | 41.6084      | 0           | 50                    | 83       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 46.9705      | 0           | 50                    | 94       | 70          | 130         |
| Hexachlorocyclopentadiene   | 1   | 36.9806      | 0           | 50                    | 74       | 20          | 160         |
| 2,4,6-Trichlorophenol       | 1   | 95.1549      | 0           | 100                   | 95       | 70          | 130         |
| 2,4,5-Trichlorophenol       | 1   | 91.3435      | 0           | 100                   | 91       | 70          | 130         |
| 2-Chloronaphthalene         | 1   | 43.1069      | 0           | 50                    | 86       | 70          | 130         |
| 1,4-Dimethylnaphthalene     | 1   | 42.1061      | 0           | 50                    | 84       | 70          | 130         |
| Diphenyl Ether              | 1   | 49.3646      | 0           | 50                    | 99       | 70          | 130         |
| 2-Nitroaniline              | 1   | 44.2043      | 0           | 50                    | 88       | 50          | 130         |
| Coumarin                    | 1   | 45.5689      | 0           | 50                    | 91       | 70          | 130         |
| Acenaphthylene              | 1   | 45.9629      | 0           | 50                    | 92       | 70          | 130         |
| Dimethylphthalate           | 1   | 43.8624      | 0           | 50                    | 88       | 70          | 130         |
| 2,6-Dinitrotoluene          | 1   | 45.4201      | 0           | 50                    | 91       | 70          | 130         |
| Acenaphthene                | 1   | 44.2505      | 0           | 50                    | 89       | 50          | 130         |
| 3-Nitroaniline              | 1   | 30.3417      | 0           | 50                    | 61       | 10          | 130         |
| 2,4-Dinitrophenol           | 1   | 68.1514      | 0           | 100                   | 68       | 20          | 150         |
| Dibenzofuran                | 1   | 42.0026      | 0           | 50                    | 84       | 70          | 130         |
| 2,4-Dinitrotoluene          | 1   | 40.1025      | 0           | 50                    | 80       | 40          | 130         |
| 4-Nitrophenol               | 1   | 80.0494      | 0           | 100                   | 80       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 82.5607      | 0           | 100                   | 83       | 70          | 130         |
| Fluorene                    | 1   | 43.9972      | 0           | 50                    | 88       | 50          | 130         |
| 4-Chlorophenyl-phenylether  | 1   | 43.4783      | 0           | 50                    | 87       | 70          | 130         |
| Diethylphthalate            | 1   | 44.1763      | 0           | 50                    | 88       | 70          | 130         |
| 4-Nitroaniline              | 1   | 41.0915      | 0           | 50                    | 82       | 50          | 130         |
| Atrazine                    | 1   | 50.3632      | 0           | 50                    | 101      | 50          | 130         |
| 4,6-Dinitro-2-methylphenol  | 1   | 83.5957      | 0           | 100                   | 84       | 70          | 130         |
| n-Nitrosodiphenylamine      | 1   | 36.3496      | 0           | 50                    | 73       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 47.5244 | 0 | 50  | 95  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 45.8316 | 0 | 50  | 92  | 70 | 130 |
| Hexachlorobenzene          | 1 | 43.1999 | 0 | 50  | 86  | 70 | 130 |
| N-Octadecane               | 1 | 41.2285 | 0 | 50  | 82  | 70 | 130 |
| Pentachlorophenol          | 1 | 92.4051 | 0 | 100 | 92  | 40 | 130 |
| Phenanthrene               | 1 | 45.534  | 0 | 50  | 91  | 70 | 130 |
| Anthracene                 | 1 | 45.1579 | 0 | 50  | 90  | 70 | 130 |
| Carbazole                  | 1 | 43.0496 | 0 | 50  | 86  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 43.224  | 0 | 50  | 86  | 70 | 130 |
| Fluoranthene               | 1 | 46.8452 | 0 | 50  | 94  | 70 | 130 |
| Pyrene                     | 1 | 45.1072 | 0 | 50  | 90  | 50 | 130 |
| Benzidine                  | 1 | 0       | 0 | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 46.2318 | 0 | 50  | 92  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 21.664  | 0 | 50  | 43  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 43.0244 | 0 | 50  | 86  | 70 | 130 |
| Chrysene                   | 1 | 40.6083 | 0 | 50  | 81  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 45.6641 | 0 | 50  | 91  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 45.7069 | 0 | 50  | 91  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 45.6545 | 0 | 50  | 91  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 51.6746 | 0 | 50  | 103 | 70 | 130 |
| Benzo[a]pyrene             | 1 | 42.5649 | 0 | 50  | 85  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 46.1916 | 0 | 50  | 92  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 47.0664 | 0 | 50  | 94  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 43.7819 | 0 | 50  | 88  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71496**

8101509 0114

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105911.D    |     | WMB71496(MS)    |             | 10/22/2018 2:01:00 PM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 64.7632         | 0           | 100                   | 65       | 20          | 160         |
| Pyridine                    | 1   | 60.6331         | 0           | 100                   | 61       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 65.3107         | 0           | 100                   | 65       | 20          | 150         |
| Benzaldehyde                | 1   | 148.3097        | 0           | 100                   | 148      | 20          | 234         |
| Aniline                     | 1   | 91.8636         | 0           | 100                   | 92       | 20          | 150         |
| Pentachloroethane           | 1   | 94.2442         | 0           | 100                   | 94       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 90.3106         | 0           | 100                   | 90       | 43          | 126         |
| Phenol                      | 1   | 49.6041         | 0           | 100                   | 50       | 17          | 120         |
| 2-Chlorophenol              | 1   | 94.364          | 0           | 100                   | 94       | 36          | 120         |
| N-Decane                    | 1   | 84.68           | 0           | 100                   | 85       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 88.6504         | 0           | 100                   | 89       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 92.9726         | 0           | 100                   | 93       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 93.1074         | 0           | 100                   | 93       | 25          | 130         |
| Benzyl alcohol              | 1   | 91.4135         | 0           | 100                   | 91       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 84.4418         | 0           | 100                   | 84       | 63          | 139         |
| 2-Methylphenol              | 1   | 93.8456         | 0           | 100                   | 94       | 35          | 130         |
| Acetophenone                | 1   | 104.0474        | 0           | 100                   | 104      | 50          | 130         |
| Hexachloroethane            | 1   | 92.1418         | 0           | 100                   | 92       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 91.4586         | 0           | 100                   | 91       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 82.3905         | 0           | 100                   | 82       | 30          | 130         |
| Nitrobenzene                | 1   | 97.577          | 0           | 100                   | 98       | 54          | 158         |
| Isophorone                  | 1   | 99.5552         | 0           | 100                   | 100      | 47          | 180         |
| 2-Nitrophenol               | 1   | 105.8593        | 0           | 100                   | 106      | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 93.6033         | 0           | 100                   | 94       | 42          | 120         |
| Benzoic Acid                | 1   | 17.7912         | 0           | 100                   | 18       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.5852         | 0           | 100                   | 96       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 104.6322        | 0           | 100                   | 105      | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 96.3014         | 0           | 100                   | 96       | 57          | 130         |
| Naphthalene                 | 1   | 90.9299         | 0           | 100                   | 91       | 36          | 120         |
| 4-Chloroaniline             | 1   | 114.3614        | 0           | 100                   | 114      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 95.0275         | 0           | 100                   | 95       | 38          | 120         |
| Caprolactam                 | 1   | 43.5698         | 0           | 100                   | 44       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 105.7048        | 0           | 100                   | 106      | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 98.4589         | 0           | 100                   | 98       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 106.368         | 0           | 100                   | 106      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 89.388          | 0           | 100                   | 89       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 104.9541        | 0           | 100                   | 105      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 93.8181         | 0           | 100                   | 94       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 109.5392        | 0           | 100                   | 110      | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 108.5806        | 0           | 100                   | 109      | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 97.068          | 0           | 100                   | 97       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 85.7191         | 0           | 100                   | 86       | 50          | 130         |
| Diphenyl Ether              | 1   | 108.542         | 0           | 100                   | 109      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.4064         | 0           | 100                   | 97       | 40          | 150         |
| Coumarin                    | 1   | 100.0713        | 0           | 100                   | 100      | 1           | 180         |
| Acenaphthylene              | 1   | 109.3586        | 0           | 100                   | 109      | 54          | 126         |
| Dimethylphthalate           | 1   | 101.1701        | 0           | 100                   | 101      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.7275         | 0           | 100                   | 95       | 68          | 137         |
| Acenaphthene                | 1   | 98.8273         | 0           | 100                   | 99       | 60          | 132         |
| 3-Nitroaniline              | 1   | 107.7116        | 0           | 100                   | 108      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 96.7183         | 0           | 100                   | 97       | 1           | 173         |
| Dibenzofuran                | 1   | 98.2799         | 0           | 100                   | 98       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 98.2775         | 0           | 100                   | 98       | 48          | 127         |
| 4-Nitrophenol               | 1   | 49.3032         | 0           | 100                   | 49       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 99.8679         | 0           | 100                   | 100      | 50          | 130         |
| Fluorene                    | 1   | 101.3255        | 0           | 100                   | 101      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 99.928          | 0           | 100                   | 100      | 38          | 145         |
| Diethylphthalate            | 1   | 102.1885        | 0           | 100                   | 102      | 1           | 120         |
| 4-Nitroaniline              | 1   | 96.7903         | 0           | 100                   | 97       | 40          | 150         |
| Atrazine                    | 1   | 104.3752        | 0           | 100                   | 104      | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 116.3409        | 0           | 100                   | 116      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71496

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 85.2018  | 0 | 100 | 85  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 99.0804  | 0 | 100 | 99  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 107.5056 | 0 | 100 | 108 | 65 | 120 |
| Hexachlorobenzene          | 1 | 103.2218 | 0 | 100 | 103 | 8  | 142 |
| N-Octadecane               | 1 | 83.1169  | 0 | 100 | 83  | 50 | 130 |
| Pentachlorophenol          | 1 | 113.9555 | 0 | 100 | 114 | 38 | 152 |
| Phenanthrene               | 1 | 103.0639 | 0 | 100 | 103 | 65 | 120 |
| Anthracene                 | 1 | 103.0442 | 0 | 100 | 103 | 43 | 120 |
| Carbazole                  | 1 | 98.3681  | 0 | 100 | 98  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 99.5785  | 0 | 100 | 100 | 8  | 120 |
| Fluoranthene               | 1 | 100.4953 | 0 | 100 | 100 | 43 | 121 |
| Pyrene                     | 1 | 110.017  | 0 | 100 | 110 | 70 | 120 |
| Benidine                   | 1 | 17.1392  | 0 | 100 | 17  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 102.5386 | 0 | 100 | 103 | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 109.6232 | 0 | 100 | 110 | 8  | 213 |
| Benzo[a]anthracene         | 1 | 105.313  | 0 | 100 | 105 | 42 | 133 |
| Chrysene                   | 1 | 95.9479  | 0 | 100 | 96  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 101.3916 | 0 | 100 | 101 | 29 | 137 |
| Di-n-octylphthalate        | 1 | 101.7064 | 0 | 100 | 102 | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 111.5369 | 0 | 100 | 112 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 113.9547 | 0 | 100 | 114 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 100.5125 | 0 | 100 | 101 | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 101.877  | 0 | 100 | 102 | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 101.875  | 0 | 100 | 102 | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 101.299  | 0 | 100 | 101 | 1  | 195 |

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71497**

8101509 0116

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105925.D    |     | WMB71497(MS)    |             | 10/23/2018 9:35:00 AM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 53.0069         | 0           | 100                   | 53       | 20          | 160         |
| Pyridine                    | 1   | 21.1511         | 0           | 100                   | 21       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 52.7103         | 0           | 100                   | 53       | 20          | 150         |
| Benzaldehyde                | 1   | 125.5905        | 0           | 100                   | 126      | 20          | 234         |
| Aniline                     | 1   | 55.2225         | 0           | 100                   | 55       | 20          | 150         |
| Pentachloroethane           | 1   | 75.9432         | 0           | 100                   | 76       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 68.0886         | 0           | 100                   | 68       | 43          | 126         |
| Phenol                      | 1   | 32.1749         | 0           | 100                   | 32       | 17          | 120         |
| 2-Chlorophenol              | 1   | 66.2886         | 0           | 100                   | 66       | 36          | 120         |
| N-Decane                    | 1   | 63.4835         | 0           | 100                   | 63       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 66.6863         | 0           | 100                   | 67       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 71.2104         | 0           | 100                   | 71       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 72.686          | 0           | 100                   | 73       | 25          | 130         |
| Benzyl alcohol              | 1   | 89.5934         | 0           | 100                   | 90       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 65.1174         | 0           | 100                   | 65       | 63          | 139         |
| 2-Methylphenol              | 1   | 68.1506         | 0           | 100                   | 68       | 35          | 130         |
| Acetophenone                | 1   | 95.0871         | 0           | 100                   | 95       | 50          | 130         |
| Hexachloroethane            | 1   | 67.4131         | 0           | 100                   | 67       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 74.3506         | 0           | 100                   | 74       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 60.4851         | 0           | 100                   | 60       | 30          | 130         |
| Nitrobenzene                | 1   | 81.5761         | 0           | 100                   | 82       | 54          | 158         |
| Isophorone                  | 1   | 87.6215         | 0           | 100                   | 88       | 47          | 180         |
| 2-Nitrophenol               | 1   | 83.5626         | 0           | 100                   | 84       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 69.639          | 0           | 100                   | 70       | 42          | 120         |
| Benzoic Acid                | 1   | 15.9754         | 0           | 100                   | 16       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 81.5234         | 0           | 100                   | 82       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 80.6862         | 0           | 100                   | 81       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 79.4017         | 0           | 100                   | 79       | 57          | 130         |
| Naphthalene                 | 1   | 77.6791         | 0           | 100                   | 78       | 36          | 120         |
| 4-Chloroaniline             | 1   | 117.0319        | 0           | 100                   | 117      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 78.1038         | 0           | 100                   | 78       | 38          | 120         |
| Caprolactam                 | 1   | 51.1066         | 0           | 100                   | 51       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 82.6556         | 0           | 100                   | 83       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 99.8825         | 0           | 100                   | 100      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 101.9348        | 0           | 100                   | 102      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 88.7145         | 0           | 100                   | 89       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 97.1347         | 0           | 100                   | 97       | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 76.1999         | 0           | 100                   | 76       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 85.0894         | 0           | 100                   | 85       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 84.5973         | 0           | 100                   | 85       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 85.9859         | 0           | 100                   | 86       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 83.1301         | 0           | 100                   | 83       | 50          | 130         |
| Diphenyl Ether              | 1   | 101.9591        | 0           | 100                   | 102      | 50          | 140         |
| 2-Nitroaniline              | 1   | 95.7188         | 0           | 100                   | 96       | 40          | 150         |
| Coumarin                    | 1   | 99.6953         | 0           | 100                   | 100      | 1           | 180         |
| Acenaphthylene              | 1   | 94.4285         | 0           | 100                   | 94       | 54          | 126         |
| Dimethylphthalate           | 1   | 90.0501         | 0           | 100                   | 90       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 85.2405         | 0           | 100                   | 85       | 68          | 137         |
| Acenaphthene                | 1   | 86.2264         | 0           | 100                   | 86       | 60          | 132         |
| 3-Nitroaniline              | 1   | 113.42          | 0           | 100                   | 113      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 83.3186         | 0           | 100                   | 83       | 1           | 173         |
| Dibenzofuran                | 1   | 102.7905        | 0           | 100                   | 103      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 88.1408         | 0           | 100                   | 88       | 48          | 127         |
| 4-Nitrophenol               | 1   | 29.9052         | 0           | 100                   | 30       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 78.0003         | 0           | 100                   | 78       | 50          | 130         |
| Fluorene                    | 1   | 90.6357         | 0           | 100                   | 91       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 89.6735         | 0           | 100                   | 90       | 38          | 145         |
| Diethylphthalate            | 1   | 86.1218         | 0           | 100                   | 86       | 1           | 120         |
| 4-Nitroaniline              | 1   | 102.9223        | 0           | 100                   | 103      | 40          | 150         |
| Atrazine                    | 1   | 100.394         | 0           | 100                   | 100      | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 98.1741         | 0           | 100                   | 98       | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 72.891   | 0 | 100 | 73  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 87.3321  | 0 | 100 | 87  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 93.2631  | 0 | 100 | 93  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.2638  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 79.5228  | 0 | 100 | 80  | 50 | 130 |
| Pentachlorophenol          | 1 | 88.6987  | 0 | 100 | 89  | 38 | 152 |
| Phenanthrene               | 1 | 88.9204  | 0 | 100 | 89  | 65 | 120 |
| Anthracene                 | 1 | 90.9866  | 0 | 100 | 91  | 43 | 120 |
| Carbazole                  | 1 | 100.7168 | 0 | 100 | 101 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 86.2762  | 0 | 100 | 86  | 8  | 120 |
| Fluoranthene               | 1 | 90.3642  | 0 | 100 | 90  | 43 | 121 |
| Pyrene                     | 1 | 93.5296  | 0 | 100 | 94  | 70 | 120 |
| Benzidine                  | 1 | 21.1067  | 0 | 100 | 21  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 81.9251  | 0 | 100 | 82  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 87.7538  | 0 | 100 | 88  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 90.3826  | 0 | 100 | 90  | 42 | 133 |
| Chrysene                   | 1 | 84.5684  | 0 | 100 | 85  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 78.343   | 0 | 100 | 78  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 78.1737  | 0 | 100 | 78  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 100.5186 | 0 | 100 | 101 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 96.159   | 0 | 100 | 96  | 25 | 146 |
| Benzo[a]pyrene             | 1 | 88.7339  | 0 | 100 | 89  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.9515  | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 92.2738  | 0 | 100 | 92  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 91.0223  | 0 | 100 | 91  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71518

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105968.D    |     | WMB71518(MS)    |             | 10/25/2018 10:04:00 A |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 63.3712         | 0           | 100                   | 63       | 20          | 160         |
| Pyridine                    | 1   | 26.351          | 0           | 100                   | 26       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 61.7632         | 0           | 100                   | 62       | 20          | 150         |
| Benzaldehyde                | 1   | 133.1941        | 0           | 100                   | 133      | 20          | 234         |
| Aniline                     | 1   | 54.8464         | 0           | 100                   | 55       | 20          | 150         |
| Pentachloroethane           | 1   | 87.0938         | 0           | 100                   | 87       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 79.2769         | 0           | 100                   | 79       | 43          | 126         |
| Phenol                      | 1   | 37.7516         | 0           | 100                   | 38       | 17          | 120         |
| 2-Chlorophenol              | 1   | 80.7457         | 0           | 100                   | 81       | 36          | 120         |
| N-Decane                    | 1   | 73.843          | 0           | 100                   | 74       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 79.3421         | 0           | 100                   | 79       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 87.8714         | 0           | 100                   | 88       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 87.3298         | 0           | 100                   | 87       | 25          | 130         |
| Benzyl alcohol              | 1   | 83.3455         | 0           | 100                   | 83       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 77.2426         | 0           | 100                   | 77       | 63          | 139         |
| 2-Methylphenol              | 1   | 82.5655         | 0           | 100                   | 83       | 35          | 130         |
| Acetophenone                | 1   | 100.5671        | 0           | 100                   | 101      | 50          | 130         |
| Hexachloroethane            | 1   | 84.5375         | 0           | 100                   | 85       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.5867         | 0           | 100                   | 85       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 70.7191         | 0           | 100                   | 71       | 30          | 130         |
| Nitrobenzene                | 1   | 92.0601         | 0           | 100                   | 92       | 54          | 158         |
| Isophorone                  | 1   | 94.3482         | 0           | 100                   | 94       | 47          | 180         |
| 2-Nitrophenol               | 1   | 95.186          | 0           | 100                   | 95       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 78.4316         | 0           | 100                   | 78       | 42          | 120         |
| Benzoic Acid                | 1   | 14.5515         | 0           | 100                   | 15       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 89.0505         | 0           | 100                   | 89       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 90.8829         | 0           | 100                   | 91       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 90.78           | 0           | 100                   | 91       | 57          | 130         |
| Naphthalene                 | 1   | 86.5            | 0           | 100                   | 86       | 36          | 120         |
| 4-Chloroaniline             | 1   | 107.6197        | 0           | 100                   | 108      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 91.4818         | 0           | 100                   | 91       | 38          | 120         |
| Caprolactam                 | 1   | 41.967          | 0           | 100                   | 42       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 90.3375         | 0           | 100                   | 90       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 92.0404         | 0           | 100                   | 92       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 102.8469        | 0           | 100                   | 103      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 87.0596         | 0           | 100                   | 87       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 100.5878        | 0           | 100                   | 101      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 94.9378         | 0           | 100                   | 95       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 94.7731         | 0           | 100                   | 95       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 92.9766         | 0           | 100                   | 93       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 93.1269         | 0           | 100                   | 93       | 65          | 120         |
| 1,4-Dimethylnapthalene      | 1   | 84.1938         | 0           | 100                   | 84       | 50          | 130         |
| Diphenyl Ether              | 1   | 103.2512        | 0           | 100                   | 103      | 50          | 140         |
| 2-Nitroaniline              | 1   | 89.568          | 0           | 100                   | 90       | 40          | 150         |
| Coumarin                    | 1   | 96.3666         | 0           | 100                   | 96       | 1           | 180         |
| Acenaphthylene              | 1   | 100.2359        | 0           | 100                   | 100      | 54          | 126         |
| Dimethylphthalate           | 1   | 94.044          | 0           | 100                   | 94       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 89.6968         | 0           | 100                   | 90       | 68          | 137         |
| Acenaphthene                | 1   | 92.023          | 0           | 100                   | 92       | 60          | 132         |
| 3-Nitroaniline              | 1   | 101.6772        | 0           | 100                   | 102      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 87.3667         | 0           | 100                   | 87       | 1           | 173         |
| Dibenzofuran                | 1   | 89.42           | 0           | 100                   | 89       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 92.0757         | 0           | 100                   | 92       | 48          | 127         |
| 4-Nitrophenol               | 1   | 31.517          | 0           | 100                   | 32       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 86.2798         | 0           | 100                   | 86       | 50          | 130         |
| Fluorene                    | 1   | 91.9172         | 0           | 100                   | 92       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 93.0513         | 0           | 100                   | 93       | 38          | 145         |
| Diethylphthalate            | 1   | 92.3725         | 0           | 100                   | 92       | 1           | 120         |
| 4-Nitroaniline              | 1   | 92.4458         | 0           | 100                   | 92       | 40          | 150         |
| Atrazine                    | 1   | 90.4564         | 0           | 100                   | 90       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 105.9085        | 0           | 100                   | 106      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71518

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 80.1879  | 0 | 100 | 80  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 93.4133  | 0 | 100 | 93  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 97.8922  | 0 | 100 | 98  | 65 | 120 |
| Hexachlorobenzene          | 1 | 98.3314  | 0 | 100 | 98  | 8  | 142 |
| N-Octadecane               | 1 | 79.8691  | 0 | 100 | 80  | 50 | 130 |
| Pentachlorophenol          | 1 | 91.3806  | 0 | 100 | 91  | 38 | 152 |
| Phenanthrene               | 1 | 94.4508  | 0 | 100 | 94  | 65 | 120 |
| Anthracene                 | 1 | 95.8335  | 0 | 100 | 96  | 43 | 120 |
| Carbazole                  | 1 | 98.2781  | 0 | 100 | 98  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 86.7878  | 0 | 100 | 87  | 8  | 120 |
| Fluoranthene               | 1 | 93.6341  | 0 | 100 | 94  | 43 | 121 |
| Pyrene                     | 1 | 98.3413  | 0 | 100 | 98  | 70 | 120 |
| Benzidine                  | 1 | 25.6015  | 0 | 100 | 26  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 75.2506  | 0 | 100 | 75  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 97.0344  | 0 | 100 | 97  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 94.7499  | 0 | 100 | 95  | 42 | 133 |
| Chrysene                   | 1 | 96.6785  | 0 | 100 | 97  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 71.3845  | 0 | 100 | 71  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 72.6209  | 0 | 100 | 73  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 99.4596  | 0 | 100 | 99  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 101.2751 | 0 | 100 | 101 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 92.0881  | 0 | 100 | 92  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.412   | 0 | 100 | 91  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 91.006   | 0 | 100 | 91  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 90.503   | 0 | 100 | 91  | 1  | 195 |

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71532**

8101509 0120

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105990.D    |     | WMB71532(MS)    |             | 10/26/2018 9:22:00 AM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 63.6211         | 0           | 100                   | 64       | 20          | 160         |
| Pyridine                    | 1   | 20.5269         | 0           | 100                   | 21       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 61.8601         | 0           | 100                   | 62       | 20          | 150         |
| Benzaldehyde                | 1   | 136.0759        | 0           | 100                   | 136      | 20          | 234         |
| Aniline                     | 1   | 51.7296         | 0           | 100                   | 52       | 20          | 150         |
| Pentachloroethane           | 1   | 84.6698         | 0           | 100                   | 85       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 80.5579         | 0           | 100                   | 81       | 43          | 126         |
| Phenol                      | 1   | 36.4041         | 0           | 100                   | 36       | 17          | 120         |
| 2-Chlorophenol              | 1   | 78.8295         | 0           | 100                   | 79       | 36          | 120         |
| N-Decane                    | 1   | 72.7133         | 0           | 100                   | 73       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 78.4067         | 0           | 100                   | 78       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 88.0187         | 0           | 100                   | 88       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 89.3419         | 0           | 100                   | 89       | 25          | 130         |
| Benzyl alcohol              | 1   | 84.9118         | 0           | 100                   | 85       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 78.3665         | 0           | 100                   | 78       | 63          | 139         |
| 2-Methylphenol              | 1   | 81.4584         | 0           | 100                   | 81       | 35          | 130         |
| Acetophenone                | 1   | 101.3579        | 0           | 100                   | 101      | 50          | 130         |
| Hexachloroethane            | 1   | 86.8006         | 0           | 100                   | 87       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 87.0509         | 0           | 100                   | 87       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 69.5412         | 0           | 100                   | 70       | 30          | 130         |
| Nitrobenzene                | 1   | 94.5265         | 0           | 100                   | 95       | 54          | 158         |
| Isophorone                  | 1   | 98.334          | 0           | 100                   | 98       | 47          | 180         |
| 2-Nitrophenol               | 1   | 95.0391         | 0           | 100                   | 95       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 79.1413         | 0           | 100                   | 79       | 42          | 120         |
| Benzoic Acid                | 1   | 0               | 0           | 100                   | 0*       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 89.9466         | 0           | 100                   | 90       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 91.2236         | 0           | 100                   | 91       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 92.0306         | 0           | 100                   | 92       | 57          | 130         |
| Naphthalene                 | 1   | 88.4357         | 0           | 100                   | 88       | 36          | 120         |
| 4-Chloroaniline             | 1   | 113.2639        | 0           | 100                   | 113      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 91.7795         | 0           | 100                   | 92       | 38          | 120         |
| Caprolactam                 | 1   | 45.0804         | 0           | 100                   | 45       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 93.2584         | 0           | 100                   | 93       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 92.9019         | 0           | 100                   | 93       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 107.5698        | 0           | 100                   | 108      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 90.9607         | 0           | 100                   | 91       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 104.6292        | 0           | 100                   | 105      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 94.9895         | 0           | 100                   | 95       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 95.5905         | 0           | 100                   | 96       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 95.373          | 0           | 100                   | 95       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 95.7092         | 0           | 100                   | 96       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 86.1181         | 0           | 100                   | 86       | 50          | 130         |
| Diphenyl Ether              | 1   | 106.3425        | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline              | 1   | 94.333          | 0           | 100                   | 94       | 40          | 150         |
| Coumarin                    | 1   | 101.4235        | 0           | 100                   | 101      | 1           | 180         |
| Acenaphthylene              | 1   | 107.4991        | 0           | 100                   | 107      | 54          | 126         |
| Dimethylphthalate           | 1   | 101.649         | 0           | 100                   | 102      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.2676         | 0           | 100                   | 94       | 68          | 137         |
| Acenaphthene                | 1   | 98.127          | 0           | 100                   | 98       | 60          | 132         |
| 3-Nitroaniline              | 1   | 111.8016        | 0           | 100                   | 112      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 72.421          | 0           | 100                   | 72       | 1           | 173         |
| Dibenzofuran                | 1   | 95.0938         | 0           | 100                   | 95       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 97.43           | 0           | 100                   | 97       | 48          | 127         |
| 4-Nitrophenol               | 1   | 35.7197         | 0           | 100                   | 36       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 88.6974         | 0           | 100                   | 89       | 50          | 130         |
| Fluorene                    | 1   | 100.1094        | 0           | 100                   | 100      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 99.08           | 0           | 100                   | 99       | 38          | 145         |
| Diethylphthalate            | 1   | 99.133          | 0           | 100                   | 99       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.6676         | 0           | 100                   | 98       | 40          | 150         |
| Atrazine                    | 1   | 92.6557         | 0           | 100                   | 93       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 100.5688        | 0           | 100                   | 101      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71532

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 80.9124  | 0 | 100 | 81  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 96.2705  | 0 | 100 | 96  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 102.7711 | 0 | 100 | 103 | 65 | 120 |
| Hexachlorobenzene          | 1 | 102.1146 | 0 | 100 | 102 | 8  | 142 |
| N-Octadecane               | 1 | 81.2652  | 0 | 100 | 81  | 50 | 130 |
| Pentachlorophenol          | 1 | 90.4718  | 0 | 100 | 90  | 38 | 152 |
| Phenanthrene               | 1 | 98.7322  | 0 | 100 | 99  | 65 | 120 |
| Anthracene                 | 1 | 99.1306  | 0 | 100 | 99  | 43 | 120 |
| Carbazole                  | 1 | 101.2382 | 0 | 100 | 101 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.7186  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 98.4808  | 0 | 100 | 98  | 43 | 121 |
| Pyrene                     | 1 | 103.7808 | 0 | 100 | 104 | 70 | 120 |
| Benzidine                  | 1 | 12.1422  | 0 | 100 | 12  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 84.5102  | 0 | 100 | 85  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 104.2028 | 0 | 100 | 104 | 8  | 213 |
| Benzo[a]anthracene         | 1 | 103.348  | 0 | 100 | 103 | 42 | 133 |
| Chrysene                   | 1 | 103.0892 | 0 | 100 | 103 | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 84.1485  | 0 | 100 | 84  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 83.674   | 0 | 100 | 84  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 108.9401 | 0 | 100 | 109 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 105.7867 | 0 | 100 | 106 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 98.6343  | 0 | 100 | 99  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.4451  | 0 | 100 | 99  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 99.0807  | 0 | 100 | 99  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 99.4292  | 0 | 100 | 99  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71471

8101509 0122

| Data File                            |     | Sample ID:         |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|--------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71442.D             |     | AD07093-001(T)(MS) |             | 10/19/2018 11:42:00 A |          |             |             |
| Non Spike(If applicable): 10M71441.D |     | AD07093-001(T)     |             | 10/19/2018 11:20:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                    |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous    |             | QC Type: MS           |          |             |             |
| Analyte:                             | Col | Spike Conc         | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 55.2785            | 0           | 100                   | 55       | 20          | 160         |
| Pyridine                             | 1   | 32.6502            | 0           | 100                   | 33       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 62.0201            | 0           | 100                   | 62       | 20          | 150         |
| Benzaldehyde                         | 1   | 129.9332           | 0           | 100                   | 130      | 20          | 234         |
| Aniline                              | 1   | 50.9197            | 0           | 100                   | 51       | 20          | 150         |
| Pentachloroethane                    | 1   | 69.6055            | 0           | 100                   | 70       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 74.7132            | 0           | 100                   | 75       | 12          | 158         |
| Phenol                               | 1   | 14.9508            | 0           | 100                   | 15       | 5           | 120         |
| 2-Chlorophenol                       | 1   | 12.2624            | 0           | 100                   | 12*      | 23          | 134         |
| N-Decane                             | 1   | 64.4722            | 0           | 100                   | 64       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 64.3333            | 0           | 100                   | 64       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 70.3069            | 0           | 100                   | 70       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 69.5202            | 0           | 100                   | 70       | 25          | 130         |
| Benzyl alcohol                       | 1   | 82.3174            | 0           | 100                   | 82       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 66.7257            | 0           | 100                   | 67       | 36          | 166         |
| 2-Methylphenol                       | 1   | 34.987             | 0           | 100                   | 35       | 35          | 130         |
| Acetophenone                         | 1   | 96.3639            | 0           | 100                   | 96       | 50          | 130         |
| Hexachloroethane                     | 1   | 72.6457            | 0           | 100                   | 73       | 40          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 83.1737            | 0           | 100                   | 83       | 1           | 230         |
| 3&4-Methylphenol                     | 1   | 32.4659            | 0           | 100                   | 32       | 30          | 130         |
| Nitrobenzene                         | 1   | 86.3474            | 0           | 100                   | 86       | 35          | 180         |
| Isophorone                           | 1   | 87.0064            | 0           | 100                   | 87       | 21          | 196         |
| 2-Nitrophenol                        | 1   | 12.7144            | 0           | 100                   | 13*      | 29          | 182         |
| 2,4-Dimethylphenol                   | 1   | 61.2862            | 0           | 100                   | 61       | 32          | 120         |
| Benzoic Acid                         | 1   | 0                  | 0           | 100                   | 0*       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 85.3877            | 0           | 100                   | 85       | 33          | 184         |
| 2,4-Dichlorophenol                   | 1   | 15.9488            | 0           | 100                   | 16*      | 39          | 135         |
| 1,2,4-Trichlorobenzene               | 1   | 81.0444            | 0           | 100                   | 81       | 44          | 142         |
| Naphthalene                          | 1   | 83.7282            | 0           | 100                   | 84       | 21          | 133         |
| 4-Chloroaniline                      | 1   | 65.1713            | 0           | 100                   | 65       | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 80.553             | 0           | 100                   | 81       | 24          | 120         |
| Caprolactam                          | 1   | 86.7465            | 0           | 100                   | 87       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 31.7955            | 0           | 100                   | 32       | 22          | 147         |
| 2-Methylnaphthalene                  | 1   | 85.0747            | 0           | 100                   | 85       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 101.3638           | 0           | 100                   | 101      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 80.5449            | 0           | 100                   | 81       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 96.8               | 0           | 100                   | 97       | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 78.1443            | 0           | 100                   | 78       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 17.9304            | 0           | 100                   | 18*      | 37          | 144         |
| 2,4,5-Trichlorophenol                | 1   | 18.0698            | 0           | 100                   | 18*      | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 87.9111            | 0           | 100                   | 88       | 60          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 89.044             | 0           | 100                   | 89       | 50          | 130         |
| Diphenyl Ether                       | 1   | 106.0297           | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 86.5766            | 0           | 100                   | 87       | 40          | 150         |
| Coumarin                             | 1   | 100.9706           | 0           | 100                   | 101      | 1           | 180         |
| Acenaphthylene                       | 1   | 100.5225           | 0           | 100                   | 101      | 33          | 145         |
| Dimethylphthalate                    | 1   | 94.2715            | 0           | 100                   | 94       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 97.9195            | 0           | 100                   | 98       | 50          | 158         |
| Acenaphthene                         | 1   | 90.4985            | 0           | 100                   | 90       | 47          | 145         |
| 3-Nitroaniline                       | 1   | 65.9536            | 0           | 100                   | 66       | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 0                  | 0           | 100                   | 0*       | 1           | 191         |
| Dibenzofuran                         | 1   | 94.397             | 0           | 100                   | 94       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 90.3419            | 0           | 100                   | 90       | 39          | 139         |
| 4-Nitrophenol                        | 1   | 7.4489             | 0           | 100                   | 7.4      | 1           | 132         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 18.9132            | 0           | 100                   | 19*      | 50          | 130         |
| Fluorene                             | 1   | 95.0732            | 0           | 100                   | 95       | 59          | 121         |
| 4-Chlorophenyl-phenylether           | 1   | 95.0356            | 0           | 100                   | 95       | 1           | 132         |
| Diethylphthalate                     | 1   | 94.4871            | 0           | 100                   | 94       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 47.2109            | 0           | 100                   | 47       | 40          | 150         |
| Atrazine                             | 1   | 91.6642            | 0           | 100                   | 92       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 16.3941            | 0           | 100                   | 16       | 1           | 181         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71471

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.1501 | 0 | 100 | 77  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 99.3004 | 0 | 100 | 99  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 98.0859 | 0 | 100 | 98  | 53 | 127 |
| Hexachlorobenzene          | 1 | 92.5694 | 0 | 100 | 93  | 1  | 152 |
| N-Octadecane               | 1 | 90.6702 | 0 | 100 | 91  | 50 | 130 |
| Pentachlorophenol          | 1 | 17.6426 | 0 | 100 | 18  | 14 | 176 |
| Phenanthrene               | 1 | 96.0675 | 0 | 100 | 96  | 54 | 120 |
| Anthracene                 | 1 | 97.2628 | 0 | 100 | 97  | 27 | 133 |
| Carbazole                  | 1 | 99.6684 | 0 | 100 | 100 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.9101 | 0 | 100 | 95  | 1  | 120 |
| Fluoranthene               | 1 | 98.6962 | 0 | 100 | 99  | 26 | 137 |
| Pyrene                     | 1 | 97.5634 | 0 | 100 | 98  | 52 | 120 |
| Benzidine                  | 1 | 17.6601 | 0 | 100 | 18  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 95.6995 | 0 | 100 | 96  | 1  | 152 |
| 3,3'-Dichlorobenzidine     | 1 | 14.2338 | 0 | 100 | 14  | 1  | 262 |
| Benzo[a]anthracene         | 1 | 94.5712 | 0 | 100 | 95  | 33 | 143 |
| Chrysene                   | 1 | 85.3424 | 0 | 100 | 85  | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.8794 | 0 | 100 | 99  | 8  | 158 |
| Di-n-octylphthalate        | 1 | 96.1084 | 0 | 100 | 96  | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 96.9413 | 0 | 100 | 97  | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 97.7971 | 0 | 100 | 98  | 11 | 162 |
| Benzo[a]pyrene             | 1 | 92.9984 | 0 | 100 | 93  | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 94.603  | 0 | 100 | 95  | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 99.0239 | 0 | 100 | 99  | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 92.8413 | 0 | 100 | 93  | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71471**

**8101509 0124**

| Data File                            |     | Sample ID:          |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|---------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71443.D             |     | AD07093-001(T)(MSD) |             | 10/19/2018 12:04:00 P |          |             |             |
| Non Spike(If applicable): 10M71441.D |     | AD07093-001(T)      |             | 10/19/2018 11:20:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                     |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous     |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc          | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 88.3305             | 0           | 100                   | 88       | 20          | 160         |
| Pyridine                             | 1   | 45.0047             | 0           | 100                   | 45       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 84.1121             | 0           | 100                   | 84       | 20          | 150         |
| Benzaldehyde                         | 1   | 5.2704              | 0           | 100                   | 5.3 *    | 20          | 234         |
| Aniline                              | 1   | 53.4628             | 0           | 100                   | 53       | 20          | 150         |
| Pentachloroethane                    | 1   | 98.3648             | 0           | 100                   | 98       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 90.1403             | 0           | 100                   | 90       | 43          | 126         |
| Phenol                               | 1   | 7.1413              | 0           | 100                   | 7.1 *    | 17          | 120         |
| 2-Chlorophenol                       | 1   | 88.9105             | 0           | 100                   | 89       | 36          | 120         |
| N-Decane                             | 1   | 91.7086             | 0           | 100                   | 92       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 84.6408             | 0           | 100                   | 85       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 84.5044             | 0           | 100                   | 85       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 81.216              | 0           | 100                   | 81       | 25          | 130         |
| Benzyl alcohol                       | 1   | 93.475              | 0           | 100                   | 93       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 76.3363             | 0           | 100                   | 76       | 63          | 139         |
| 2-Methylphenol                       | 1   | 87.5182             | 0           | 100                   | 88       | 35          | 130         |
| Acetophenone                         | 1   | 109.4396            | 0           | 100                   | 109      | 50          | 130         |
| Hexachloroethane                     | 1   | 88.7666             | 0           | 100                   | 89       | 55          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 90.1977             | 0           | 100                   | 90       | 14          | 198         |
| 3&4-Methylphenol                     | 1   | 96.6319             | 0           | 100                   | 97       | 30          | 130         |
| Nitrobenzene                         | 1   | 94.429              | 0           | 100                   | 94       | 54          | 158         |
| Isophorone                           | 1   | 91.0974             | 0           | 100                   | 91       | 47          | 180         |
| 2-Nitrophenol                        | 1   | 92.7584             | 0           | 100                   | 93       | 45          | 167         |
| 2,4-Dimethylphenol                   | 1   | 81.6805             | 0           | 100                   | 82       | 42          | 120         |
| Benzoic Acid                         | 1   | 66.3912             | 0           | 100                   | 66       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 89.0525             | 0           | 100                   | 89       | 49          | 165         |
| 2,4-Dichlorophenol                   | 1   | 95.1159             | 0           | 100                   | 95       | 53          | 122         |
| 1,2,4-Trichlorobenzene               | 1   | 93.4757             | 0           | 100                   | 93       | 57          | 130         |
| Naphthalene                          | 1   | 95.1742             | 0           | 100                   | 95       | 36          | 120         |
| 4-Chloroaniline                      | 1   | 66.2253             | 0           | 100                   | 66       | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 91.406              | 0           | 100                   | 91       | 38          | 120         |
| Caprolactam                          | 1   | 92.9287             | 0           | 100                   | 93       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 99.8015             | 0           | 100                   | 100      | 41          | 128         |
| 2-Methylnaphthalene                  | 1   | 94.5012             | 0           | 100                   | 95       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 110.9245            | 0           | 100                   | 111      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 95.0403             | 0           | 100                   | 95       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 111.4509            | 0           | 100                   | 111      | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 95.3923             | 0           | 100                   | 95       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 106.4675            | 0           | 100                   | 106      | 52          | 129         |
| 2,4,5-Trichlorophenol                | 1   | 95.0322             | 0           | 100                   | 95       | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 96.4045             | 0           | 100                   | 96       | 65          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 95.8254             | 0           | 100                   | 96       | 50          | 130         |
| Diphenyl Ether                       | 1   | 114.1075            | 0           | 100                   | 114      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 87.6347             | 0           | 100                   | 88       | 40          | 150         |
| Coumarin                             | 1   | 106.6203            | 0           | 100                   | 107      | 1           | 180         |
| Acenaphthylene                       | 1   | 104.7829            | 0           | 100                   | 105      | 54          | 126         |
| Dimethylphthalate                    | 1   | 96.0941             | 0           | 100                   | 96       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 101.8529            | 0           | 100                   | 102      | 68          | 137         |
| Acenaphthene                         | 1   | 94.8585             | 0           | 100                   | 95       | 60          | 132         |
| 3-Nitroaniline                       | 1   | 67.8766             | 0           | 100                   | 68       | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 82.5761             | 0           | 100                   | 83       | 1           | 173         |
| Dibenzofuran                         | 1   | 96.4206             | 0           | 100                   | 96       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 89.6786             | 0           | 100                   | 90       | 48          | 127         |
| 4-Nitrophenol                        | 1   | 79.7018             | 0           | 100                   | 80       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 90.4734             | 0           | 100                   | 90       | 50          | 130         |
| Fluorene                             | 1   | 95.1927             | 0           | 100                   | 95       | 70          | 120         |
| 4-Chlorophenyl-phenylether           | 1   | 94.174              | 0           | 100                   | 94       | 38          | 145         |
| Diethylphthalate                     | 1   | 95.4744             | 0           | 100                   | 95       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 51.3524             | 0           | 100                   | 51       | 40          | 150         |
| Atrazine                             | 1   | 90.1065             | 0           | 100                   | 90       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 99.9576             | 0           | 100                   | 100      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

**8101509 0125**

QC Batch: WMB71471

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.5825  | 0 | 100 | 78  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 101.9052 | 0 | 100 | 102 | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 101.1868 | 0 | 100 | 101 | 65 | 120 |
| Hexachlorobenzene          | 1 | 91.5121  | 0 | 100 | 92  | 8  | 142 |
| N-Octadecane               | 1 | 98.3309  | 0 | 100 | 98  | 50 | 130 |
| Pentachlorophenol          | 1 | 105.5476 | 0 | 100 | 106 | 38 | 152 |
| Phenanthrene               | 1 | 95.0333  | 0 | 100 | 95  | 65 | 120 |
| Anthracene                 | 1 | 96.5921  | 0 | 100 | 97  | 43 | 120 |
| Carbazole                  | 1 | 107.655  | 0 | 100 | 108 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 95.4054  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 99.4451  | 0 | 100 | 99  | 43 | 121 |
| Pyrene                     | 1 | 97.3258  | 0 | 100 | 97  | 70 | 120 |
| Benidine                   | 1 | 2.5529   | 0 | 100 | 2.6 | 1  | 134 |
| Butylbenzylphthalate       | 1 | 92.8719  | 0 | 100 | 93  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 13.9974  | 0 | 100 | 14  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 93.9256  | 0 | 100 | 94  | 42 | 133 |
| Chrysene                   | 1 | 86.1337  | 0 | 100 | 86  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 99.4964  | 0 | 100 | 99  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 96.5511  | 0 | 100 | 97  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 95.6713  | 0 | 100 | 96  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 99.6312  | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 91.8774  | 0 | 100 | 92  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.0319  | 0 | 100 | 93  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 98.3406  | 0 | 100 | 98  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 92.7831  | 0 | 100 | 93  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**RPD Data Laboratory Limits**

**8101509 0126**

QC Batch: WMB71471

|                                      |                     |                       |
|--------------------------------------|---------------------|-----------------------|
| Data File                            | Sample ID:          | Analysis Date         |
| Spike or Dup: 10M71443.D             | AD07093-001(T)(MSD) | 10/19/2018 12:04:00 P |
| Duplicate(If applicable): 10M71442.D | AD07093-001(T)(MS)  | 10/19/2018 11:42:00 A |
| Inst Blank(If applicable):           |                     |                       |
| Method: 625.1                        | Matrix: Aqueous     | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MSD<br>Conc | Sample/MS/MSB<br>Conc | RPD   | Limit |
|-----------------------------|--------|---------------------|-----------------------|-------|-------|
| 1,4-Dioxane                 | 1      | 88.3305             | 55.2785               | 46 *  | 20    |
| Pyridine                    | 1      | 45.0047             | 32.6502               | 32    | 40    |
| N-Nitrosodimethylamine      | 1      | 84.1121             | 62.0201               | 30 *  | 20    |
| Benzaldehyde                | 1      | 5.2704              | 129.9332              | 184 * | 20    |
| Aniline                     | 1      | 53.4628             | 50.9197               | 4.9   | 20    |
| Pentachloroethane           | 1      | 98.3648             | 69.6055               | 34 *  | 20    |
| bis(2-Chloroethyl)ether     | 1      | 90.1403             | 74.7132               | 19    | 108   |
| Phenol                      | 1      | 7.1413              | 14.9508               | 71 *  | 64    |
| 2-Chlorophenol              | 1      | 88.9105             | 12.2624               | 152 * | 61    |
| N-Decane                    | 1      | 91.7086             | 64.4722               | 35 *  | 20    |
| 1,3-Dichlorobenzene         | 1      | 84.6408             | 64.3333               | 27 *  | 20    |
| 1,4-Dichlorobenzene         | 1      | 84.5044             | 70.3069               | 18    | 40    |
| 1,2-Dichlorobenzene         | 1      | 81.216              | 69.5202               | 16    | 20    |
| Benzyl alcohol              | 1      | 93.475              | 82.3174               | 13    | 20    |
| bis(2-chloroisopropyl)ether | 1      | 76.3363             | 66.7257               | 13    | 76    |
| 2-Methylphenol              | 1      | 87.5182             | 34.987                | 86 *  | 40    |
| Acetophenone                | 1      | 109.4396            | 96.3639               | 13    | 20    |
| Hexachloroethane            | 1      | 88.7666             | 72.6457               | 20    | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 90.1977             | 83.1737               | 8.1   | 87    |
| 3&4-Methylphenol            | 1      | 96.6319             | 32.4659               | 99 *  | 40    |
| Nitrobenzene                | 1      | 94.429              | 86.3474               | 8.9   | 62    |
| Isophorone                  | 1      | 91.0974             | 87.0064               | 4.6   | 93    |
| 2-Nitrophenol               | 1      | 92.7584             | 12.7144               | 152 * | 55    |
| 2,4-Dimethylphenol          | 1      | 81.6805             | 61.2862               | 29    | 58    |
| Benzoic Acid                | 1      | 66.3912             | 0                     | 200 * | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 89.0525             | 85.3877               | 4.2   | 54    |
| 2,4-Dichlorophenol          | 1      | 95.1159             | 15.9488               | 143 * | 50    |
| 1,2,4-Trichlorobenzene      | 1      | 93.4757             | 81.0444               | 14    | 50    |
| Naphthalene                 | 1      | 95.1742             | 83.7282               | 13    | 65    |
| 4-Chloroaniline             | 1      | 66.2253             | 65.1713               | 1.6   | 20    |
| Hexachlorobutadiene         | 1      | 91.406              | 80.553                | 13    | 62    |
| Caprolactam                 | 1      | 92.9287             | 86.7465               | 6.9   | 20    |
| 4-Chloro-3-methylphenol     | 1      | 99.8015             | 31.7955               | 103 * | 73    |
| 2-Methylnaphthalene         | 1      | 94.5012             | 85.0747               | 10    | 20    |
| 1-Methylnaphthalene         | 1      | 110.9245            | 101.3638              | 9     | 20    |
| 1,1'-Biphenyl               | 1      | 95.0403             | 80.5449               | 17    | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 111.4509            | 96.8                  | 14    | 20    |
| Hexachlorocyclopentadiene   | 1      | 95.3923             | 78.1443               | 20    | 20    |
| 2,4,6-Trichlorophenol       | 1      | 106.4675            | 17.9304               | 142 * | 58    |
| 2,4,5-Trichlorophenol       | 1      | 95.0322             | 18.0698               | 136 * | 40    |
| 2-Chloronaphthalene         | 1      | 96.4045             | 87.9111               | 9.2   | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 95.8254             | 89.044                | 7.3   | 20    |
| Diphenyl Ether              | 1      | 114.1075            | 106.0297              | 7.3   | 20    |
| 2-Nitroaniline              | 1      | 87.6347             | 86.5766               | 1.2   | 20    |
| Coumarin                    | 1      | 106.6203            | 100.9706              | 5.4   | 20    |
| Acenaphthylene              | 1      | 104.7829            | 100.5225              | 4.2   | 74    |
| Dimethylphthalate           | 1      | 96.0941             | 94.2715               | 1.9   | 183   |
| 2,6-Dinitrotoluene          | 1      | 101.8529            | 97.9195               | 3.9   | 48    |
| Acenaphthene                | 1      | 94.8585             | 90.4985               | 4.7   | 48    |
| 3-Nitroaniline              | 1      | 67.8766             | 65.9536               | 2.9   | 20    |
| 2,4-Dinitrophenol           | 1      | 82.5761             | 0                     | 200 * | 132   |
| Dibenzofuran                | 1      | 96.4206             | 94.397                | 2.1   | 20    |
| 2,4-Dinitrotoluene          | 1      | 89.6786             | 90.3419               | 0.74  | 42    |
| 4-Nitrophenol               | 1      | 79.7018             | 7.4489                | 166 * | 131   |
| 2,3,4,6-Tetrachlorophenol   | 1      | 90.4734             | 18.9132               | 131 * | 20    |
| Fluorene                    | 1      | 95.1927             | 95.0732               | 0.13  | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 94.174              | 95.0356               | 0.91  | 61    |
| Diethylphthalate            | 1      | 95.4744             | 94.4871               | 1     | 100   |
| 4-Nitroaniline              | 1      | 51.3524             | 47.2109               | 8.4   | 20    |
| Atrazine                    | 1      | 90.1065             | 91.6642               | 1.7   | 20    |
| 4,6-Dinitro-2-methylphenol  | 1      | 99.9576             | 16.3941               | 144   | 203   |
| n-Nitrosodiphenylamine      | 1      | 77.5825             | 77.1501               | 0.56  | 20    |
| 1,2-Diphenylhydrazine       | 1      | 101.9052            | 99.3004               | 2.6   | 20    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0127**

QC Batch: WMB71471

|                            |   |          |         |       |     |
|----------------------------|---|----------|---------|-------|-----|
| 4-Bromophenyl-phenylether  | 1 | 101.1868 | 98.0859 | 3.1   | 43  |
| Hexachlorobenzene          | 1 | 91.5121  | 92.5694 | 1.1   | 55  |
| N-Octadecane               | 1 | 98.3309  | 90.6702 | 8.1   | 20  |
| Pentachlorophenol          | 1 | 105.5476 | 17.6426 | 143 * | 86  |
| Phenanthrene               | 1 | 95.0333  | 96.0675 | 1.1   | 39  |
| Anthracene                 | 1 | 96.5921  | 97.2628 | 0.69  | 66  |
| Carbazole                  | 1 | 107.655  | 99.6684 | 7.7   | 20  |
| Di-n-butylphthalate        | 1 | 95.4054  | 94.9101 | 0.52  | 47  |
| Fluoranthene               | 1 | 99.4451  | 98.6962 | 0.76  | 66  |
| Pyrene                     | 1 | 97.3258  | 97.5634 | 0.24  | 49  |
| Benzidine                  | 1 | 2.5529   | 17.6601 | 149 * | 20  |
| Butylbenzylphthalate       | 1 | 92.8719  | 95.6995 | 3     | 60  |
| 3,3'-Dichlorobenzidine     | 1 | 13.9974  | 14.2338 | 1.7   | 108 |
| Benzo[a]anthracene         | 1 | 93.9256  | 94.5712 | 0.68  | 53  |
| Chrysene                   | 1 | 86.1337  | 85.3424 | 0.92  | 87  |
| bis(2-Ethylhexyl)phthalate | 1 | 99.4964  | 98.8794 | 0.62  | 82  |
| Di-n-octylphthalate        | 1 | 96.5511  | 96.1084 | 0.46  | 69  |
| Benzo[b]fluoranthene       | 1 | 95.6713  | 96.9413 | 1.3   | 71  |
| Benzo[k]fluoranthene       | 1 | 99.6312  | 97.7971 | 1.9   | 63  |
| Benzo[a]pyrene             | 1 | 91.8774  | 92.9984 | 1.2   | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.0319  | 94.603  | 1.7   | 99  |
| Dibenzo[a,h]anthracene     | 1 | 98.3406  | 99.0239 | 0.69  | 126 |
| Benzo[g,h,i]perylene       | 1 | 92.7831  | 92.8413 | 0.06  | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

|                                      |                    |                       |
|--------------------------------------|--------------------|-----------------------|
| Data File                            | Sample ID:         | Analysis Date         |
| Spike or Dup: 5M105898.D             | AD06939-001(T)(MS) | 10/22/2018 8:58:00 AM |
| Non Spike(If applicable): 5M105897.D | AD06939-001(T)     | 10/22/2018 8:35:00 AM |
| Inst Blank(If applicable):           |                    |                       |

Method: 625.1

Matrix: Aqueous

QC Type: MS

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 77.857     | 0           | 100           | 78       | 20          | 160         |
| Pyridine                    | 1   | 7.983      | 0           | 100           | 8        | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 86.8562    | 0           | 100           | 87       | 20          | 150         |
| Benzaldehyde                | 1   | 141.2897   | 0           | 100           | 141      | 20          | 234         |
| Aniline                     | 1   | 35.8284    | 0           | 100           | 36       | 20          | 150         |
| Pentachloroethane           | 1   | 86.9434    | 0           | 100           | 87       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 87.5754    | 0           | 100           | 88       | 12          | 158         |
| N-Decane                    | 1   | 70.4172    | 0           | 100           | 70       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 82.7246    | 0           | 100           | 83       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 83.6878    | 0           | 100           | 84       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 84.6299    | 0           | 100           | 85       | 25          | 130         |
| Benzyl alcohol              | 1   | 102.3139   | 0           | 100           | 102      | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 77.4704    | 0           | 100           | 77       | 36          | 166         |
| Acetophenone                | 1   | 98.2235    | 0           | 100           | 98       | 50          | 130         |
| Hexachloroethane            | 1   | 81.9007    | 0           | 100           | 82       | 40          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.8854    | 0           | 100           | 85       | 1           | 230         |
| Nitrobenzene                | 1   | 94.825     | 0           | 100           | 95       | 35          | 180         |
| Isophorone                  | 1   | 99.9692    | 0           | 100           | 100      | 21          | 196         |
| Benzoic Acid                | 1   | 44.0751    | 0           | 100           | 44       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.544     | 0           | 100           | 96       | 33          | 184         |
| 1,2,4-Trichlorobenzene      | 1   | 93.5408    | 0           | 100           | 94       | 44          | 142         |
| Naphthalene                 | 1   | 92.2102    | 7.6512      | 100           | 85       | 21          | 133         |
| 4-Chloroaniline             | 1   | 105.1189   | 0           | 100           | 105      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 93.1214    | 0           | 100           | 93       | 24          | 120         |
| Caprolactam                 | 1   | 102.6359   | 0           | 100           | 103      | 5           | 130         |
| 2-Methylnaphthalene         | 1   | 103.4607   | 0           | 100           | 103      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 110.2842   | 0           | 100           | 110      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 91.0241    | 0           | 100           | 91       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 107.0762   | 0           | 100           | 107      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 96.9201    | 0           | 100           | 97       | 20          | 130         |
| 2-Chloronaphthalene         | 1   | 103.2298   | 0           | 100           | 103      | 60          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 89.7472    | 0           | 100           | 90       | 50          | 130         |
| Diphenyl Ether              | 1   | 110.7226   | 0           | 100           | 111      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.5482    | 0           | 100           | 98       | 40          | 150         |
| Coumarin                    | 1   | 103.8067   | 0           | 100           | 104      | 1           | 180         |
| Acenaphthylene              | 1   | 111.5918   | 0           | 100           | 112      | 33          | 145         |
| Dimethylphthalate           | 1   | 105.915    | 0           | 100           | 106      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 100.5232   | 0           | 100           | 101      | 50          | 158         |
| Acenaphthene                | 1   | 102.3924   | 0           | 100           | 102      | 47          | 145         |
| 3-Nitroaniline              | 1   | 118.0802   | 0           | 100           | 118      | 40          | 150         |
| Dibenzofuran                | 1   | 101.5379   | 0           | 100           | 102      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 101.0231   | 0           | 100           | 101      | 39          | 139         |
| Fluorene                    | 1   | 105.124    | 0           | 100           | 105      | 59          | 121         |
| 4-Chlorophenyl-phenylether  | 1   | 105.706    | 0           | 100           | 106      | 1           | 132         |
| Diethylphthalate            | 1   | 105.2871   | 0           | 100           | 105      | 1           | 120         |
| 4-Nitroaniline              | 1   | 103.0135   | 0           | 100           | 103      | 40          | 150         |
| Atrazine                    | 1   | 105.6294   | 0           | 100           | 106      | 40          | 150         |
| n-Nitrosodiphenylamine      | 1   | 82.2599    | 0           | 100           | 82       | 30          | 130         |
| 1,2-Diphenylhydrazine       | 1   | 90.8987    | 0           | 100           | 91       | 40          | 130         |
| 4-Bromophenyl-phenylether   | 1   | 108.8576   | 0           | 100           | 109      | 53          | 127         |
| Hexachlorobenzene           | 1   | 106.1678   | 0           | 100           | 106      | 1           | 152         |
| N-Octadecane                | 1   | 81.4795    | 0           | 100           | 81       | 50          | 130         |
| Phenanthrene                | 1   | 101.4946   | 0           | 100           | 101      | 54          | 120         |
| Anthracene                  | 1   | 104.5216   | 0           | 100           | 105      | 27          | 133         |
| Carbazole                   | 1   | 103.0421   | 0           | 100           | 103      | 40          | 130         |
| Di-n-butylphthalate         | 1   | 98.1155    | 0           | 100           | 98       | 1           | 120         |
| Fluoranthene                | 1   | 101.0344   | 0           | 100           | 101      | 26          | 137         |
| Pyrene                      | 1   | 110.9075   | 0           | 100           | 111      | 52          | 120         |
| Benzidine                   | 1   | 0          | 0           | 100           | 0*       | 1           | 130         |
| Butylbenzylphthalate        | 1   | 101.2463   | 0           | 100           | 101      | 1           | 152         |
| 3,3'-Dichlorobenzidine      | 1   | 97.2949    | 0           | 100           | 97       | 1           | 262         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| Benzo[a]anthracene         | 1 | 108.0028 | 0 | 100 | 108 | 33 | 143 |
| Chrysene                   | 1 | 97.4313  | 0 | 100 | 97  | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 99.563   | 0 | 100 | 100 | 8  | 158 |
| Di-n-octylphthalate        | 1 | 102.6505 | 0 | 100 | 103 | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 116.2156 | 0 | 100 | 116 | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 114.4713 | 0 | 100 | 114 | 11 | 162 |
| Benzo[a]pyrene             | 1 | 101.046  | 0 | 100 | 101 | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 102.6149 | 0 | 100 | 103 | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 104.7473 | 0 | 100 | 105 | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 105.0016 | 0 | 100 | 105 | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

|                                      |                     |                       |
|--------------------------------------|---------------------|-----------------------|
| Data File                            | Sample ID:          | Analysis Date         |
| Spike or Dup: 5M105899.D             | AD06939-001(T)(MSD) | 10/22/2018 9:21:00 AM |
| Non Spike(If applicable): 5M105897.D | AD06939-001(T)      | 10/22/2018 8:35:00 AM |
| Inst Blank(If applicable):           |                     |                       |

Method: 625.1

Matrix: Aqueous

QC Type: MSD

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 76.3499    | 0           | 100           | 76       | 20          | 160         |
| Pyridine                    | 1   | 11.552     | 0           | 100           | 12       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 84.4133    | 0           | 100           | 84       | 20          | 150         |
| Benzaldehyde                | 1   | 147.0652   | 0           | 100           | 147      | 20          | 234         |
| Aniline                     | 1   | 35.1592    | 0           | 100           | 35       | 20          | 150         |
| Pentachloroethane           | 1   | 91.8136    | 0           | 100           | 92       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 85.5288    | 0           | 100           | 86       | 43          | 126         |
| N-Decane                    | 1   | 76.564     | 0           | 100           | 77       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 79.8158    | 0           | 100           | 80       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 84.5277    | 0           | 100           | 85       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 87.1238    | 0           | 100           | 87       | 25          | 130         |
| Benzyl alcohol              | 1   | 106.5976   | 0           | 100           | 107      | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 79.2527    | 0           | 100           | 79       | 63          | 139         |
| Acetophenone                | 1   | 104.9483   | 0           | 100           | 105      | 50          | 130         |
| Hexachloroethane            | 1   | 84.3678    | 0           | 100           | 84       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 85.1915    | 0           | 100           | 85       | 14          | 198         |
| Nitrobenzene                | 1   | 96.3637    | 0           | 100           | 96       | 54          | 158         |
| Isophorone                  | 1   | 100.1544   | 0           | 100           | 100      | 47          | 180         |
| Benzoic Acid                | 1   | 54.5759    | 0           | 100           | 55       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.3517    | 0           | 100           | 95       | 49          | 165         |
| 1,2,4-Trichlorobenzene      | 1   | 93.6737    | 0           | 100           | 94       | 57          | 130         |
| Naphthalene                 | 1   | 92.6424    | 7.6512      | 100           | 85       | 36          | 120         |
| 4-Chloroaniline             | 1   | 105.2263   | 0           | 100           | 105      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 96.2439    | 0           | 100           | 96       | 38          | 120         |
| Caprolactam                 | 1   | 111.1943   | 0           | 100           | 111      | 5           | 130         |
| 2-Methylnaphthalene         | 1   | 106.2374   | 0           | 100           | 106      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 116.412    | 0           | 100           | 116      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 96.76      | 0           | 100           | 97       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 113.785    | 0           | 100           | 114      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 102.1635   | 0           | 100           | 102      | 20          | 130         |
| 2-Chloronaphthalene         | 1   | 102.5285   | 0           | 100           | 103      | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 93.9595    | 0           | 100           | 94       | 50          | 130         |
| Diphenyl Ether              | 1   | 117.8408   | 0           | 100           | 118      | 50          | 140         |
| 2-Nitroaniline              | 1   | 99.2824    | 0           | 100           | 99       | 40          | 150         |
| Coumarin                    | 1   | 107.7802   | 0           | 100           | 108      | 1           | 180         |
| Acenaphthylene              | 1   | 110.0305   | 0           | 100           | 110      | 54          | 126         |
| Dimethylphthalate           | 1   | 104.3451   | 0           | 100           | 104      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 97.3107    | 0           | 100           | 97       | 68          | 137         |
| Acenaphthene                | 1   | 99.6918    | 0           | 100           | 100      | 60          | 132         |
| 3-Nitroaniline              | 1   | 116.3944   | 0           | 100           | 116      | 40          | 150         |
| Dibenzofuran                | 1   | 101.9938   | 0           | 100           | 102      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 100.4151   | 0           | 100           | 100      | 48          | 127         |
| Fluorene                    | 1   | 102.5783   | 0           | 100           | 103      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 103.3601   | 0           | 100           | 103      | 38          | 145         |
| Diethylphthalate            | 1   | 100.8704   | 0           | 100           | 101      | 1           | 120         |
| 4-Nitroaniline              | 1   | 103.8011   | 0           | 100           | 104      | 40          | 150         |
| Atrazine                    | 1   | 108.1861   | 0           | 100           | 108      | 40          | 150         |
| n-Nitrosodiphenylamine      | 1   | 84.05      | 0           | 100           | 84       | 30          | 130         |
| 1,2-Diphenylhydrazine       | 1   | 99.3625    | 0           | 100           | 99       | 40          | 130         |
| 4-Bromophenyl-phenylether   | 1   | 108.3889   | 0           | 100           | 108      | 65          | 120         |
| Hexachlorobenzene           | 1   | 106.0492   | 0           | 100           | 106      | 8           | 142         |
| N-Octadecane                | 1   | 87.2404    | 0           | 100           | 87       | 50          | 130         |
| Phenanthrene                | 1   | 104.4312   | 0           | 100           | 104      | 65          | 120         |
| Anthracene                  | 1   | 104.2935   | 0           | 100           | 104      | 43          | 120         |
| Carbazole                   | 1   | 110.2573   | 0           | 100           | 110      | 40          | 130         |
| Di-n-butylphthalate         | 1   | 99.3534    | 0           | 100           | 99       | 8           | 120         |
| Fluoranthene                | 1   | 102.8683   | 0           | 100           | 103      | 43          | 121         |
| Pyrene                      | 1   | 107.8023   | 0           | 100           | 108      | 70          | 120         |
| Benzidine                   | 1   | 2.389      | 0           | 100           | 2.4      | 1           | 134         |
| Butylbenzylphthalate        | 1   | 100.872    | 0           | 100           | 101      | 1           | 140         |
| 3,3'-Dichlorobenzidine      | 1   | 96.9888    | 0           | 100           | 97       | 8           | 213         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| Benzo[a]anthracene         | 1 | 102.2728 | 0 | 100 | 102 | 42 | 133 |
| Chrysene                   | 1 | 93.8333  | 0 | 100 | 94  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.532   | 0 | 100 | 99  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 99.4593  | 0 | 100 | 99  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 112.0012 | 0 | 100 | 112 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 108.7855 | 0 | 100 | 109 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 97.9594  | 0 | 100 | 98  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.5223  | 0 | 100 | 100 | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 100.8959 | 0 | 100 | 101 | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 100.3366 | 0 | 100 | 100 | 1  | 195 |

# Form3

## RPD Data Laboratory Limits

QC Batch: WMB71479

Data File      Sample ID:      Analysis Date  
 Spike or Dup: 5M105899.D      AD06939-001(T)(MSD)      10/22/2018 9:21:00 AM  
 Duplicate(If applicable): 5M105898.D      AD06939-001(T)(MS)      10/22/2018 8:58:00 AM  
 Inst Blank(If applicable):

Method: 625.1

Matrix: Aqueous

QC Type: MSD

| Analyte:                    | Column | Dup/MSD/MBSD | Sample/MS/MBS | RPD   | Limit |
|-----------------------------|--------|--------------|---------------|-------|-------|
|                             |        | Conc         | Conc          |       |       |
| 1,4-Dioxane                 | 1      | 76.3499      | 77.857        | 2     | 20    |
| Pyridine                    | 1      | 11.552       | 7.983         | 37    | 40    |
| N-Nitrosodimethylamine      | 1      | 84.4133      | 86.8562       | 2.9   | 20    |
| Benzaldehyde                | 1      | 147.0652     | 141.2897      | 4     | 20    |
| Aniline                     | 1      | 35.1592      | 35.8284       | 1.9   | 20    |
| Pentachloroethane           | 1      | 91.8136      | 86.9434       | 5.4   | 20    |
| bis(2-Chloroethyl)ether     | 1      | 85.5288      | 87.5754       | 2.4   | 108   |
| N-Decane                    | 1      | 76.564       | 70.4172       | 8.4   | 20    |
| 1,3-Dichlorobenzene         | 1      | 79.8158      | 82.7246       | 3.6   | 20    |
| 1,4-Dichlorobenzene         | 1      | 84.5277      | 83.6878       | 1     | 40    |
| 1,2-Dichlorobenzene         | 1      | 87.1238      | 84.6299       | 2.9   | 20    |
| Benzyl alcohol              | 1      | 106.5976     | 102.3139      | 4.1   | 20    |
| bis(2-chloroisopropyl)ether | 1      | 79.2527      | 77.4704       | 2.3   | 76    |
| Acetophenone                | 1      | 104.9483     | 98.2235       | 6.6   | 20    |
| Hexachloroethane            | 1      | 84.3678      | 81.9007       | 3     | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 85.1915      | 84.8854       | 0.36  | 87    |
| Nitrobenzene                | 1      | 96.3637      | 94.825        | 1.6   | 62    |
| Isophorone                  | 1      | 100.1544     | 99.9692       | 0.19  | 93    |
| Benzoic Acid                | 1      | 54.5759      | 44.0751       | 21 *  | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 95.3517      | 95.544        | 0.2   | 54    |
| 1,2,4-Trichlorobenzene      | 1      | 93.6737      | 93.5408       | 0.14  | 50    |
| Naphthalene                 | 1      | 92.6424      | 92.2102       | 0.47  | 65    |
| 4-Chloroaniline             | 1      | 105.2263     | 105.1189      | 0.1   | 20    |
| Hexachlorobutadiene         | 1      | 96.2439      | 93.1214       | 3.3   | 62    |
| Caprolactam                 | 1      | 111.1943     | 102.6359      | 8     | 20    |
| 2-Methylnaphthalene         | 1      | 106.2374     | 103.4607      | 2.6   | 20    |
| 1-Methylnaphthalene         | 1      | 116.412      | 110.2842      | 5.4   | 20    |
| 1,1'-Biphenyl               | 1      | 96.76        | 91.0241       | 6.1   | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 113.785      | 107.0762      | 6.1   | 20    |
| Hexachlorocyclopentadiene   | 1      | 102.1635     | 96.9201       | 5.3   | 20    |
| 2-Chloronaphthalene         | 1      | 102.5285     | 103.2298      | 0.68  | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 93.9595      | 89.7472       | 4.6   | 20    |
| Diphenyl Ether              | 1      | 117.8408     | 110.7226      | 6.2   | 20    |
| 2-Nitroaniline              | 1      | 99.2824      | 97.5482       | 1.8   | 20    |
| Coumarin                    | 1      | 107.7802     | 103.8067      | 3.8   | 20    |
| Acenaphthylene              | 1      | 110.0305     | 111.5918      | 1.4   | 74    |
| Dimethylphthalate           | 1      | 104.3451     | 105.915       | 1.5   | 183   |
| 2,6-Dinitrotoluene          | 1      | 97.3107      | 100.5232      | 3.2   | 48    |
| Acenaphthene                | 1      | 99.6918      | 102.3924      | 2.7   | 48    |
| 3-Nitroaniline              | 1      | 116.3944     | 118.0802      | 1.4   | 20    |
| Dibenzofuran                | 1      | 101.9938     | 101.5379      | 0.45  | 20    |
| 2,4-Dinitrotoluene          | 1      | 100.4151     | 101.0231      | 0.6   | 42    |
| Fluorene                    | 1      | 102.5783     | 105.124       | 2.5   | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 103.3601     | 105.706       | 2.2   | 61    |
| Diethylphthalate            | 1      | 100.8704     | 105.2871      | 4.3   | 100   |
| 4-Nitroaniline              | 1      | 103.8011     | 103.0135      | 0.76  | 20    |
| Atrazine                    | 1      | 108.1861     | 105.6294      | 2.4   | 20    |
| n-Nitrosodiphenylamine      | 1      | 84.05        | 82.2599       | 2.2   | 20    |
| 1,2-Diphenylhydrazine       | 1      | 99.3625      | 90.8987       | 8.9   | 20    |
| 4-Bromophenyl-phenylether   | 1      | 108.3889     | 108.8576      | 0.43  | 43    |
| Hexachlorobenzene           | 1      | 106.0492     | 106.1678      | 0.11  | 55    |
| N-Octadecane                | 1      | 87.2404      | 81.4795       | 6.8   | 20    |
| Phenanthrene                | 1      | 104.4312     | 101.4946      | 2.9   | 39    |
| Anthracene                  | 1      | 104.2935     | 104.5216      | 0.22  | 66    |
| Carbazole                   | 1      | 110.2573     | 103.0421      | 6.8   | 20    |
| Di-n-butylphthalate         | 1      | 99.3534      | 98.1155       | 1.3   | 47    |
| Fluoranthene                | 1      | 102.8683     | 101.0344      | 1.8   | 66    |
| Pyrene                      | 1      | 107.8023     | 110.9075      | 2.8   | 49    |
| Benzidine                   | 1      | 2.389        | 0             | 200 * | 20    |
| Butylbenzylphthalate        | 1      | 100.872      | 101.2463      | 0.37  | 60    |
| 3,3'-Dichlorobenzidine      | 1      | 96.9888      | 97.2949       | 0.32  | 108   |
| Benzo[a]anthracene          | 1      | 102.2728     | 108.0028      | 5.4   | 53    |
| Chrysene                    | 1      | 93.8333      | 97.4313       | 3.8   | 87    |

Form3  
RPD Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |          |     |     |
|----------------------------|---|----------|----------|-----|-----|
| bis(2-Ethylhexyl)phthalate | 1 | 98.532   | 99.563   | 1   | 82  |
| Di-n-octylphthalate        | 1 | 99.4593  | 102.6505 | 3.2 | 69  |
| Benzo[b]fluoranthene       | 1 | 112.0012 | 116.2156 | 3.7 | 71  |
| Benzo[k]fluoranthene       | 1 | 108.7855 | 114.4713 | 5.1 | 63  |
| Benzo[a]pyrene             | 1 | 97.9594  | 101.046  | 3.1 | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.5223  | 102.6149 | 3.1 | 99  |
| Dibenzo[a,h]anthracene     | 1 | 100.8959 | 104.7473 | 3.7 | 126 |
| Benzo[g,h,i]perylene       | 1 | 100.3366 | 105.0016 | 4.5 | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: SMB71480**

8101509 0134

| Data File                            |     | Sample ID:      |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71460.D             |     | AD07136-003(MS) |             | 10/19/2018 6:52:00 PM |          |             |             |
| Non Spike(If applicable): 10M71459.D |     | AD07136-003     |             | 10/19/2018 6:30:00 PM |          |             |             |
| Inst Blank(If applicable):           |     |                 |             |                       |          |             |             |
| Method: 8270D                        |     | Matrix: Soil    |             | QC Type: MS           |          |             |             |
| Analyte:                             | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                             | 1   | 23.1032         | 0           | 50                    | 46       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 34.3013         | 0           | 50                    | 69       | 50          | 130         |
| Benzaldehyde                         | 1   | 73.1107         | 0           | 50                    | 146      | 20          | 220         |
| Aniline                              | 1   | 26.0648         | 0           | 50                    | 52       | 20          | 150         |
| Pentachloroethane                    | 1   | 40.8681         | 0           | 50                    | 82       | 50          | 130         |
| bis(2-Chloroethyl)ether              | 1   | 37.9532         | 0           | 50                    | 76       | 50          | 130         |
| Phenol                               | 1   | 87.559          | 0           | 100                   | 88       | 20          | 150         |
| 2-Chlorophenol                       | 1   | 85.5731         | 0           | 100                   | 86       | 50          | 130         |
| N-Decane                             | 1   | 34.1942         | 0           | 50                    | 68       | 20          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 36.6728         | 0           | 50                    | 73       | 60          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 37.5176         | 0           | 50                    | 75       | 60          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 35.5485         | 0           | 50                    | 71       | 50          | 130         |
| Benzyl alcohol                       | 1   | 42.2052         | 0           | 50                    | 84       | 20          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 34.7892         | 0           | 50                    | 70       | 40          | 130         |
| 2-Methylphenol                       | 1   | 85.7146         | 0           | 100                   | 86       | 50          | 130         |
| Acetophenone                         | 1   | 46.8707         | 0           | 50                    | 94       | 50          | 130         |
| Hexachloroethane                     | 1   | 38.2785         | 0           | 50                    | 77       | 50          | 130         |
| N-Nitroso-di-n-propylamine           | 1   | 40.6172         | 0           | 50                    | 81       | 40          | 130         |
| 3&4-Methylphenol                     | 1   | 94.9835         | 0           | 100                   | 95       | 70          | 130         |
| Nitrobenzene                         | 1   | 40.5831         | 0           | 50                    | 81       | 70          | 130         |
| Isophorone                           | 1   | 41.2265         | 0           | 50                    | 82       | 60          | 130         |
| 2-Nitrophenol                        | 1   | 87.613          | 0           | 100                   | 88       | 70          | 130         |
| 2,4-Dimethylphenol                   | 1   | 87.1908         | 0           | 100                   | 87       | 50          | 130         |
| Benzoic Acid                         | 1   | 45.4584         | 0           | 100                   | 45       | 20          | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 41.8846         | 0           | 50                    | 84       | 60          | 130         |
| 2,4-Dichlorophenol                   | 1   | 89.4897         | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene               | 1   | 39.8779         | 0           | 50                    | 80       | 50          | 130         |
| Naphthalene                          | 1   | 39.6058         | 0           | 50                    | 79       | 50          | 130         |
| 4-Chloroaniline                      | 1   | 32.6478         | 0           | 50                    | 65       | 10          | 150         |
| Hexachlorobutadiene                  | 1   | 39.2935         | 0           | 50                    | 79       | 60          | 130         |
| Caprolactam                          | 1   | 51.0936         | 0           | 50                    | 102      | 50          | 130         |
| 4-Chloro-3-methylphenol              | 1   | 95.2708         | 0           | 100                   | 95       | 50          | 130         |
| 2-Methylnaphthalene                  | 1   | 42.0726         | 0           | 50                    | 84       | 70          | 130         |
| 1-Methylnaphthalene                  | 1   | 45.9973         | 0           | 50                    | 92       | 70          | 130         |
| 1,1'-Biphenyl                        | 1   | 40.923          | 0           | 50                    | 82       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 49.2296         | 0           | 50                    | 98       | 70          | 130         |
| Hexachlorocyclopentadiene            | 1   | 24.3635         | 0           | 50                    | 49       | 20          | 160         |
| 2,4,6-Trichlorophenol                | 1   | 98.4871         | 0           | 100                   | 98       | 70          | 130         |
| 2,4,5-Trichlorophenol                | 1   | 96.2235         | 0           | 100                   | 96       | 70          | 130         |
| 2-Chloronaphthalene                  | 1   | 44.4398         | 0           | 50                    | 89       | 70          | 130         |
| 1,4-Dimethylnaphthalene              | 1   | 43.6087         | 0           | 50                    | 87       | 70          | 130         |
| Diphenyl Ether                       | 1   | 50.945          | 0           | 50                    | 102      | 70          | 130         |
| 2-Nitroaniline                       | 1   | 45.1334         | 0           | 50                    | 90       | 50          | 130         |
| Coumarin                             | 1   | 48.3697         | 0           | 50                    | 97       | 70          | 130         |
| Acenaphthylene                       | 1   | 48.224          | 0           | 50                    | 96       | 70          | 130         |
| Dimethylphthalate                    | 1   | 43.1029         | 0           | 50                    | 86       | 70          | 130         |
| 2,6-Dinitrotoluene                   | 1   | 46.7449         | 0           | 50                    | 93       | 70          | 130         |
| Acenaphthene                         | 1   | 45.007          | 0           | 50                    | 90       | 50          | 130         |
| 3-Nitroaniline                       | 1   | 34.7015         | 0           | 50                    | 69*      | 70          | 130         |
| 2,4-Dinitrophenol                    | 1   | 76.4823         | 0           | 100                   | 76       | 20          | 150         |
| Dibenzofuran                         | 1   | 43.7587         | 0           | 50                    | 88       | 70          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 41.4652         | 0           | 50                    | 83       | 40          | 130         |
| 4-Nitrophenol                        | 1   | 88.9843         | 0           | 100                   | 89       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 93.3059         | 0           | 100                   | 93       | 70          | 130         |
| Fluorene                             | 1   | 44.6241         | 0           | 50                    | 89       | 50          | 130         |
| 4-Chlorophenyl-phenylether           | 1   | 43.3181         | 0           | 50                    | 87       | 70          | 130         |
| Diethylphthalate                     | 1   | 43.8555         | 0           | 50                    | 88       | 70          | 130         |
| 4-Nitroaniline                       | 1   | 42.5611         | 0           | 50                    | 85       | 50          | 130         |
| Atrazine                             | 1   | 50.0199         | 0           | 50                    | 100      | 50          | 130         |
| 4,6-Dinitro-2-methylphenol           | 1   | 87.0177         | 0           | 100                   | 87       | 70          | 130         |
| n-Nitrosodiphenylamine               | 1   | 35.7089         | 0           | 50                    | 71       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |          |        |     |     |    |     |
|----------------------------|---|----------|--------|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 45.7115  | 0      | 50  | 91  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 43.4579  | 0      | 50  | 87  | 70 | 130 |
| Hexachlorobenzene          | 1 | 41.4945  | 0      | 50  | 83  | 70 | 130 |
| N-Octadecane               | 1 | 40.1622  | 0      | 50  | 80  | 70 | 130 |
| Pentachlorophenol          | 1 | 101.0389 | 0      | 100 | 101 | 40 | 130 |
| Phenanthrene               | 1 | 42.7047  | 0      | 50  | 85  | 70 | 130 |
| Anthracene                 | 1 | 42.8769  | 0      | 50  | 86  | 70 | 130 |
| Carbazole                  | 1 | 44.0177  | 0      | 50  | 88  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 42.0591  | 0.5347 | 50  | 83  | 70 | 130 |
| Fluoranthene               | 1 | 44.8359  | 0      | 50  | 90  | 70 | 130 |
| Pyrene                     | 1 | 41.6923  | 0      | 50  | 83  | 50 | 130 |
| Benzidine                  | 1 | 0        | 0      | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 45.2858  | 0      | 50  | 91  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 27.5678  | 0      | 50  | 55  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 41.8312  | 0      | 50  | 84  | 70 | 130 |
| Chrysene                   | 1 | 39.6551  | 0      | 50  | 79  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 44.1528  | 0      | 50  | 88  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 44.734   | 0      | 50  | 89  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 47.294   | 0      | 50  | 95  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 44.772   | 0      | 50  | 90  | 70 | 130 |
| Benzo[a]pyrene             | 1 | 42.5841  | 0      | 50  | 85  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 43.4521  | 0      | 50  | 87  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 44.3127  | 0      | 50  | 89  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 40.8198  | 0      | 50  | 82  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: SMB71480**

8101509 0136

| Data File                            |     | Sample ID:       |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71461.D             |     | AD07136-003(MSD) |             | 10/19/2018 7:14:00 PM |          |             |             |
| Non Spike(If applicable): 10M71459.D |     | AD07136-003      |             | 10/19/2018 6:30:00 PM |          |             |             |
| Inst Blank(If applicable):           |     |                  |             |                       |          |             |             |
| Method: 8270D                        |     | Matrix: Soil     |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                             | 1   | 19.474           | 0           | 50                    | 39       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 39.5078          | 0           | 50                    | 79       | 50          | 130         |
| Benzaldehyde                         | 1   | 71.3589          | 0           | 50                    | 143      | 20          | 220         |
| Aniline                              | 1   | 26.6193          | 0           | 50                    | 53       | 20          | 150         |
| Pentachloroethane                    | 1   | 41.5957          | 0           | 50                    | 83       | 50          | 130         |
| bis(2-Chloroethyl)ether              | 1   | 39.8034          | 0           | 50                    | 80       | 50          | 130         |
| Phenol                               | 1   | 92.2058          | 0           | 100                   | 92       | 20          | 150         |
| 2-Chlorophenol                       | 1   | 89.6034          | 0           | 100                   | 90       | 50          | 130         |
| N-Decane                             | 1   | 32.3133          | 0           | 50                    | 65       | 20          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 37.5716          | 0           | 50                    | 75       | 60          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 36.3549          | 0           | 50                    | 73       | 60          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 35.4587          | 0           | 50                    | 71       | 50          | 130         |
| Benzyl alcohol                       | 1   | 43.0866          | 0           | 50                    | 86       | 20          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 34.9248          | 0           | 50                    | 70       | 40          | 130         |
| 2-Methylphenol                       | 1   | 87.2462          | 0           | 100                   | 87       | 50          | 130         |
| Acetophenone                         | 1   | 47.6852          | 0           | 50                    | 95       | 50          | 130         |
| Hexachloroethane                     | 1   | 36.6893          | 0           | 50                    | 73       | 50          | 130         |
| N-Nitroso-di-n-propylamine           | 1   | 42.3294          | 0           | 50                    | 85       | 40          | 130         |
| 3&4-Methylphenol                     | 1   | 97.1521          | 0           | 100                   | 97       | 70          | 130         |
| Nitrobenzene                         | 1   | 41.0967          | 0           | 50                    | 82       | 70          | 130         |
| Isophorone                           | 1   | 40.762           | 0           | 50                    | 82       | 60          | 130         |
| 2-Nitrophenol                        | 1   | 85.1588          | 0           | 100                   | 85       | 70          | 130         |
| 2,4-Dimethylphenol                   | 1   | 85.8001          | 0           | 100                   | 86       | 50          | 130         |
| Benzoic Acid                         | 1   | 44.2023          | 0           | 100                   | 44       | 20          | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 41.2245          | 0           | 50                    | 82       | 60          | 130         |
| 2,4-Dichlorophenol                   | 1   | 88.6255          | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene               | 1   | 39.0631          | 0           | 50                    | 78       | 50          | 130         |
| Naphthalene                          | 1   | 40.4026          | 0           | 50                    | 81       | 50          | 130         |
| 4-Chloroaniline                      | 1   | 32.5696          | 0           | 50                    | 65       | 10          | 150         |
| Hexachlorobutadiene                  | 1   | 38.4966          | 0           | 50                    | 77       | 60          | 130         |
| Caprolactam                          | 1   | 52.1146          | 0           | 50                    | 104      | 50          | 130         |
| 4-Chloro-3-methylphenol              | 1   | 94.4724          | 0           | 100                   | 94       | 50          | 130         |
| 2-Methylnaphthalene                  | 1   | 41.6256          | 0           | 50                    | 83       | 70          | 130         |
| 1-Methylnaphthalene                  | 1   | 47.0952          | 0           | 50                    | 94       | 70          | 130         |
| 1,1'-Biphenyl                        | 1   | 38.0481          | 0           | 50                    | 76       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 43.5229          | 0           | 50                    | 87       | 70          | 130         |
| Hexachlorocyclopentadiene            | 1   | 20.688           | 0           | 50                    | 41       | 20          | 160         |
| 2,4,6-Trichlorophenol                | 1   | 93.8013          | 0           | 100                   | 94       | 70          | 130         |
| 2,4,5-Trichlorophenol                | 1   | 93.3347          | 0           | 100                   | 93       | 70          | 130         |
| 2-Chloronaphthalene                  | 1   | 42.3291          | 0           | 50                    | 85       | 70          | 130         |
| 1,4-Dimethylnaphthalene              | 1   | 39.9849          | 0           | 50                    | 80       | 70          | 130         |
| Diphenyl Ether                       | 1   | 45.9768          | 0           | 50                    | 92       | 70          | 130         |
| 2-Nitroaniline                       | 1   | 44.5067          | 0           | 50                    | 89       | 50          | 130         |
| Coumarin                             | 1   | 46.0893          | 0           | 50                    | 92       | 70          | 130         |
| Acenaphthylene                       | 1   | 44.3178          | 0           | 50                    | 89       | 70          | 130         |
| Dimethylphthalate                    | 1   | 43.279           | 0           | 50                    | 87       | 70          | 130         |
| 2,6-Dinitrotoluene                   | 1   | 46.0087          | 0           | 50                    | 92       | 70          | 130         |
| Acenaphthene                         | 1   | 42.7284          | 0           | 50                    | 85       | 50          | 130         |
| 3-Nitroaniline                       | 1   | 33.4218          | 0           | 50                    | 67*      | 70          | 130         |
| 2,4-Dinitrophenol                    | 1   | 78.3257          | 0           | 100                   | 78       | 20          | 150         |
| Dibenzofuran                         | 1   | 42.5902          | 0           | 50                    | 85       | 70          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 40.3454          | 0           | 50                    | 81       | 40          | 130         |
| 4-Nitrophenol                        | 1   | 90.2347          | 0           | 100                   | 90       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 84.4188          | 0           | 100                   | 84       | 70          | 130         |
| Fluorene                             | 1   | 42.6159          | 0           | 50                    | 85       | 50          | 130         |
| 4-Chlorophenyl-phenylether           | 1   | 42.3303          | 0           | 50                    | 85       | 70          | 130         |
| Diethylphthalate                     | 1   | 43.3161          | 0           | 50                    | 87       | 70          | 130         |
| 4-Nitroaniline                       | 1   | 39.9267          | 0           | 50                    | 80       | 50          | 130         |
| Atrazine                             | 1   | 48.9531          | 0           | 50                    | 98       | 50          | 130         |
| 4,6-Dinitro-2-methylphenol           | 1   | 93.7333          | 0           | 100                   | 94       | 70          | 130         |
| n-Nitrosodiphenylamine               | 1   | 37.4593          | 0           | 50                    | 75       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |          |        |     |     |    |     |
|----------------------------|---|----------|--------|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 46.1069  | 0      | 50  | 92  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 45.0178  | 0      | 50  | 90  | 70 | 130 |
| Hexachlorobenzene          | 1 | 43.1155  | 0      | 50  | 86  | 70 | 130 |
| N-Octadecane               | 1 | 40.0609  | 0      | 50  | 80  | 70 | 130 |
| Pentachlorophenol          | 1 | 105.1929 | 0      | 100 | 105 | 40 | 130 |
| Phenanthrene               | 1 | 43.76    | 0      | 50  | 88  | 70 | 130 |
| Anthracene                 | 1 | 44.9908  | 0      | 50  | 90  | 70 | 130 |
| Carbazole                  | 1 | 44.0964  | 0      | 50  | 88  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 43.5521  | 0.5347 | 50  | 86  | 70 | 130 |
| Fluoranthene               | 1 | 46.7431  | 0      | 50  | 93  | 70 | 130 |
| Pyrene                     | 1 | 44.5291  | 0      | 50  | 89  | 50 | 130 |
| Benzidine                  | 1 | 0        | 0      | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 46.0475  | 0      | 50  | 92  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 28.1281  | 0      | 50  | 56  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 44.8842  | 0      | 50  | 90  | 70 | 130 |
| Chrysene                   | 1 | 41.3473  | 0      | 50  | 83  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 47.4486  | 0      | 50  | 95  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 45.8937  | 0      | 50  | 92  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 48.8028  | 0      | 50  | 98  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 47.0116  | 0      | 50  | 94  | 70 | 130 |
| Benzo[a]pyrene             | 1 | 43.5192  | 0      | 50  | 87  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 45.4832  | 0      | 50  | 91  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 47.4901  | 0      | 50  | 95  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 44.0135  | 0      | 50  | 88  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: SMB71480**

8101509 0138

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 10M71461.D             | AD07136-003(MSD) | 10/19/2018 7:14:00 PM |
| Duplicate(If applicable): 10M71460.D | AD07136-003(MS)  | 10/19/2018 6:52:00 PM |
| Inst Blank(If applicable):           |                  |                       |
| Method: 8270D                        | Matrix: Soil     | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MSD<br>Conc | Sample/MS/MSB<br>Conc | RPD  | Limit |
|-----------------------------|--------|---------------------|-----------------------|------|-------|
| Pyridine                    | 1      | 19.474              | 23.1032               | 17   | 30    |
| N-Nitrosodimethylamine      | 1      | 39.5078             | 34.3013               | 14   | 30    |
| Benzaldehyde                | 1      | 71.3589             | 73.1107               | 2.4  | 30    |
| Aniline                     | 1      | 26.6193             | 26.0648               | 2.1  | 30    |
| Pentachloroethane           | 1      | 41.5957             | 40.8681               | 1.8  | 30    |
| bis(2-Chloroethyl)ether     | 1      | 39.8034             | 37.9532               | 4.8  | 30    |
| Phenol                      | 1      | 92.2058             | 87.559                | 5.2  | 40    |
| 2-Chlorophenol              | 1      | 89.6034             | 85.5731               | 4.6  | 40    |
| N-Decane                    | 1      | 32.3133             | 34.1942               | 5.7  | 30    |
| 1,3-Dichlorobenzene         | 1      | 37.5716             | 36.6728               | 2.4  | 30    |
| 1,4-Dichlorobenzene         | 1      | 36.3549             | 37.5176               | 3.1  | 40    |
| 1,2-Dichlorobenzene         | 1      | 35.4587             | 35.5485               | 0.25 | 30    |
| Benzyl alcohol              | 1      | 43.0866             | 42.2052               | 2.1  | 30    |
| bis(2-chloroisopropyl)ether | 1      | 34.9248             | 34.7892               | 0.39 | 30    |
| 2-Methylphenol              | 1      | 87.2462             | 85.7146               | 1.8  | 40    |
| Acetophenone                | 1      | 47.6852             | 46.8707               | 1.7  | 30    |
| Hexachloroethane            | 1      | 36.6893             | 38.2785               | 4.2  | 30    |
| N-Nitroso-di-n-propylamine  | 1      | 42.3294             | 40.6172               | 4.1  | 40    |
| 3&4-Methylphenol            | 1      | 97.1521             | 94.9835               | 2.3  | 30    |
| Nitrobenzene                | 1      | 41.0967             | 40.5831               | 1.3  | 30    |
| Isophorone                  | 1      | 40.762              | 41.2265               | 1.1  | 30    |
| 2-Nitrophenol               | 1      | 85.1588             | 87.613                | 2.8  | 30    |
| 2,4-Dimethylphenol          | 1      | 85.8001             | 87.1908               | 1.6  | 40    |
| Benzoic Acid                | 1      | 44.2023             | 45.4584               | 2.8  | 30    |
| bis(2-Chloroethoxy)methane  | 1      | 41.2245             | 41.8846               | 1.6  | 30    |
| 2,4-Dichlorophenol          | 1      | 88.6255             | 89.4897               | 0.97 | 30    |
| 1,2,4-Trichlorobenzene      | 1      | 39.0631             | 39.8779               | 2.1  | 40    |
| Naphthalene                 | 1      | 40.4026             | 39.6058               | 2    | 40    |
| 4-Chloroaniline             | 1      | 32.5696             | 32.6478               | 0.24 | 30    |
| Hexachlorobutadiene         | 1      | 38.4966             | 39.2935               | 2    | 30    |
| Caprolactam                 | 1      | 52.1146             | 51.0936               | 2    | 30    |
| 4-Chloro-3-methylphenol     | 1      | 94.4724             | 95.2708               | 0.84 | 40    |
| 2-Methylnaphthalene         | 1      | 41.6256             | 42.0726               | 1.1  | 30    |
| 1-Methylnaphthalene         | 1      | 47.0952             | 45.9973               | 2.4  | 30    |
| 1,1'-Biphenyl               | 1      | 38.0481             | 40.923                | 7.3  | 30    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 43.5229             | 49.2296               | 12   | 30    |
| Hexachlorocyclopentadiene   | 1      | 20.688              | 24.3635               | 16   | 30    |
| 2,4,6-Trichlorophenol       | 1      | 93.8013             | 98.4871               | 4.9  | 30    |
| 2,4,5-Trichlorophenol       | 1      | 93.3347             | 96.2235               | 3    | 30    |
| 2-Chloronaphthalene         | 1      | 42.3291             | 44.4398               | 4.9  | 30    |
| 1,4-Dimethylnaphthalene     | 1      | 39.9849             | 43.6087               | 8.7  | 30    |
| Diphenyl Ether              | 1      | 45.9768             | 50.945                | 10   | 30    |
| 2-Nitroaniline              | 1      | 44.5067             | 45.1334               | 1.4  | 30    |
| Coumarin                    | 1      | 46.0893             | 48.3697               | 4.8  | 30    |
| Acenaphthylene              | 1      | 44.3178             | 48.224                | 8.4  | 30    |
| Dimethylphthalate           | 1      | 43.279              | 43.1029               | 0.41 | 30    |
| 2,6-Dinitrotoluene          | 1      | 46.0087             | 46.7449               | 1.6  | 30    |
| Acenaphthene                | 1      | 42.7284             | 45.007                | 5.2  | 40    |
| 3-Nitroaniline              | 1      | 33.4218             | 34.7015               | 3.8  | 30    |
| 2,4-Dinitrophenol           | 1      | 78.3257             | 76.4823               | 2.4  | 30    |
| Dibenzofuran                | 1      | 42.5902             | 43.7587               | 2.7  | 30    |
| 2,4-Dinitrotoluene          | 1      | 40.3454             | 41.4652               | 2.7  | 40    |
| 4-Nitrophenol               | 1      | 90.2347             | 88.9843               | 1.4  | 40    |
| 2,3,4,6-Tetrachlorophenol   | 1      | 84.4188             | 93.3059               | 10   | 30    |
| Fluorene                    | 1      | 42.6159             | 44.6241               | 4.6  | 40    |
| 4-Chlorophenyl-phenylether  | 1      | 42.3303             | 43.3181               | 2.3  | 30    |
| Diethylphthalate            | 1      | 43.3161             | 43.8555               | 1.2  | 30    |
| 4-Nitroaniline              | 1      | 39.9267             | 42.5611               | 6.4  | 30    |
| Atrazine                    | 1      | 48.9531             | 50.0199               | 2.2  | 30    |
| 4,6-Dinitro-2-methylphenol  | 1      | 93.7333             | 87.0177               | 7.4  | 30    |
| n-Nitrosodiphenylamine      | 1      | 37.4593             | 35.7089               | 4.8  | 30    |
| 1,2-Diphenylhydrazine       | 1      | 46.1069             | 45.7115               | 0.86 | 30    |
| 4-Bromophenyl-phenylether   | 1      | 45.0178             | 43.4579               | 3.5  | 30    |

# Form3 RPD Data Laboratory Limits

QC Batch: SMB71480

|                            |   |          |          |      |    |
|----------------------------|---|----------|----------|------|----|
| Hexachlorobenzene          | 1 | 43.1155  | 41.4945  | 3.8  | 30 |
| N-Octadecane               | 1 | 40.0609  | 40.1622  | 0.25 | 30 |
| Pentachlorophenol          | 1 | 105.1929 | 101.0389 | 4    | 40 |
| Phenanthrene               | 1 | 43.76    | 42.7047  | 2.4  | 30 |
| Anthracene                 | 1 | 44.9908  | 42.8769  | 4.8  | 30 |
| Carbazole                  | 1 | 44.0964  | 44.0177  | 0.18 | 30 |
| Di-n-butylphthalate        | 1 | 43.5521  | 42.0591  | 3.5  | 30 |
| Fluoranthene               | 1 | 46.7431  | 44.8359  | 4.2  | 30 |
| Pyrene                     | 1 | 44.5291  | 41.6923  | 6.6  | 40 |
| Benzidine                  | 1 | 0        | 0        | NA   | 30 |
| Butylbenzylphthalate       | 1 | 46.0475  | 45.2858  | 1.7  | 40 |
| 3,3'-Dichlorobenzidine     | 1 | 28.1281  | 27.5678  | 2    | 30 |
| Benzo[a]anthracene         | 1 | 44.8842  | 41.8312  | 7    | 30 |
| Chrysene                   | 1 | 41.3473  | 39.6551  | 4.2  | 30 |
| bis(2-Ethylhexyl)phthalate | 1 | 47.4486  | 44.1528  | 7.2  | 30 |
| Di-n-octylphthalate        | 1 | 45.8937  | 44.734   | 2.6  | 30 |
| Benzo[b]fluoranthene       | 1 | 48.8028  | 47.294   | 3.1  | 30 |
| Benzo[k]fluoranthene       | 1 | 47.0116  | 44.772   | 4.9  | 30 |
| Benzo[a]pyrene             | 1 | 43.5192  | 42.5841  | 2.2  | 30 |
| Indeno[1,2,3-cd]pyrene     | 1 | 45.4832  | 43.4521  | 4.6  | 30 |
| Dibenzo[a,h]anthracene     | 1 | 47.4901  | 44.3127  | 6.9  | 30 |
| Benzo[g,h,i]perylene       | 1 | 44.0135  | 40.8198  | 7.5  | 30 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71497**

8101509 0140

| Data File                            |     | Sample ID:      |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105928.D             |     | AD07161-001(MS) |             | 10/23/2018 10:45:00 A |          |             |             |
| Non Spike(If applicable): 5M105927.D |     | AD07161-001     |             | 10/23/2018 10:21:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                 |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous |             | QC Type: MS           |          |             |             |
| Analyte:                             | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 79.05           | 0           | 100                   | 79       | 20          | 160         |
| Pyridine                             | 1   | 42.8366         | 0           | 100                   | 43       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 74.2596         | 0           | 100                   | 74       | 20          | 150         |
| Benzaldehyde                         | 1   | 138.2068        | 0           | 100                   | 138      | 20          | 234         |
| Aniline                              | 1   | 66.4807         | 0           | 100                   | 66       | 20          | 150         |
| Pentachloroethane                    | 1   | 87.705          | 0           | 100                   | 88       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 77.0152         | 0           | 100                   | 77       | 12          | 158         |
| Phenol                               | 1   | 76.0985         | 0           | 100                   | 76       | 5           | 120         |
| 2-Chlorophenol                       | 1   | 86.984          | 0           | 100                   | 87       | 23          | 134         |
| N-Decane                             | 1   | 75.8828         | 0           | 100                   | 76       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 72.8177         | 0           | 100                   | 73       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 75.3521         | 0           | 100                   | 75       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 76.9314         | 0           | 100                   | 77       | 25          | 130         |
| Benzyl alcohol                       | 1   | 100.2758        | 0           | 100                   | 100      | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 69.7337         | 0           | 100                   | 70       | 36          | 166         |
| 2-Methylphenol                       | 1   | 91.9522         | 0           | 100                   | 92       | 35          | 130         |
| Acetophenone                         | 1   | 99.8858         | 0           | 100                   | 100      | 50          | 130         |
| Hexachloroethane                     | 1   | 74.7076         | 0           | 100                   | 75       | 40          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 76.4543         | 0           | 100                   | 76       | 1           | 230         |
| 3&4-Methylphenol                     | 1   | 86.7057         | 0           | 100                   | 87       | 30          | 130         |
| Nitrobenzene                         | 1   | 83.2033         | 0           | 100                   | 83       | 35          | 180         |
| Isophorone                           | 1   | 85.3608         | 0           | 100                   | 85       | 21          | 196         |
| 2-Nitrophenol                        | 1   | 93.5174         | 0           | 100                   | 94       | 29          | 182         |
| 2,4-Dimethylphenol                   | 1   | 80.9145         | 0           | 100                   | 81       | 32          | 120         |
| Benzoic Acid                         | 1   | 38.437          | 0           | 100                   | 38       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 80.3537         | 0           | 100                   | 80       | 33          | 184         |
| 2,4-Dichlorophenol                   | 1   | 91.7772         | 0           | 100                   | 92       | 39          | 135         |
| 1,2,4-Trichlorobenzene               | 1   | 80.8283         | 0           | 100                   | 81       | 44          | 142         |
| Naphthalene                          | 1   | 80.0422         | 0           | 100                   | 80       | 21          | 133         |
| 4-Chloroaniline                      | 1   | 103.1922        | 0           | 100                   | 103      | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 82.8454         | 0           | 100                   | 83       | 24          | 120         |
| Caprolactam                          | 1   | 99.4056         | 0           | 100                   | 99       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 93.8997         | 0           | 100                   | 94       | 22          | 147         |
| 2-Methylnaphthalene                  | 1   | 100.3154        | 0           | 100                   | 100      | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 104.404         | 0           | 100                   | 104      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 89.4267         | 0           | 100                   | 89       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 104.4884        | 0           | 100                   | 104      | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 78.9205         | 0           | 100                   | 79       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 95.9188         | 0           | 100                   | 96       | 37          | 144         |
| 2,4,5-Trichlorophenol                | 1   | 95.8201         | 0           | 100                   | 96       | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 87.2742         | 0           | 100                   | 87       | 60          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 83.1617         | 0           | 100                   | 83       | 50          | 130         |
| Diphenyl Ether                       | 1   | 106.3235        | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 97.8076         | 0           | 100                   | 98       | 40          | 150         |
| Coumarin                             | 1   | 97.0873         | 0           | 100                   | 97       | 1           | 180         |
| Acenaphthylene                       | 1   | 94.5488         | 0           | 100                   | 95       | 33          | 145         |
| Dimethylphthalate                    | 1   | 88.9533         | 0           | 100                   | 89       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 82.6502         | 0           | 100                   | 83       | 50          | 158         |
| Acenaphthene                         | 1   | 89.1847         | 0           | 100                   | 89       | 47          | 145         |
| 3-Nitroaniline                       | 1   | 114.4031        | 0           | 100                   | 114      | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 97.1961         | 0           | 100                   | 97       | 1           | 191         |
| Dibenzofuran                         | 1   | 99.8598         | 0           | 100                   | 100      | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 87.1642         | 0           | 100                   | 87       | 39          | 139         |
| 4-Nitrophenol                        | 1   | 75.3343         | 0           | 100                   | 75       | 1           | 132         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 89.0021         | 0           | 100                   | 89       | 50          | 130         |
| Fluorene                             | 1   | 88.352          | 0           | 100                   | 88       | 59          | 121         |
| 4-Chlorophenyl-phenylether           | 1   | 88.6811         | 0           | 100                   | 89       | 1           | 132         |
| Diethylphthalate                     | 1   | 86.2868         | 0           | 100                   | 86       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 102.1912        | 0           | 100                   | 102      | 40          | 150         |
| Atrazine                             | 1   | 96.9905         | 0           | 100                   | 97       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 106.8505        | 0           | 100                   | 107      | 1           | 181         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |         |   |     |    |    |     |
|----------------------------|---|---------|---|-----|----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 71.3249 | 0 | 100 | 71 | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 85.5388 | 0 | 100 | 86 | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 91.4732 | 0 | 100 | 91 | 53 | 127 |
| Hexachlorobenzene          | 1 | 90.6183 | 0 | 100 | 91 | 1  | 152 |
| N-Octadecane               | 1 | 80.5188 | 0 | 100 | 81 | 50 | 130 |
| Pentachlorophenol          | 1 | 97.7678 | 0 | 100 | 98 | 14 | 176 |
| Phenanthrene               | 1 | 87.0894 | 0 | 100 | 87 | 54 | 120 |
| Anthracene                 | 1 | 88.5778 | 0 | 100 | 89 | 27 | 133 |
| Carbazole                  | 1 | 98.0528 | 0 | 100 | 98 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 83.6981 | 0 | 100 | 84 | 1  | 120 |
| Fluoranthene               | 1 | 88.1544 | 0 | 100 | 88 | 26 | 137 |
| Pyrene                     | 1 | 94.7395 | 0 | 100 | 95 | 52 | 120 |
| Benzidine                  | 1 | 20.4431 | 0 | 100 | 20 | 1  | 130 |
| Butylbenzylphthalate       | 1 | 85.8754 | 0 | 100 | 86 | 1  | 152 |
| 3,3'-Dichlorobenzidine     | 1 | 83.0334 | 0 | 100 | 83 | 1  | 262 |
| Benzo[a]anthracene         | 1 | 89.8715 | 0 | 100 | 90 | 33 | 143 |
| Chrysene                   | 1 | 84.295  | 0 | 100 | 84 | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 80.3978 | 0 | 100 | 80 | 8  | 158 |
| Di-n-octylphthalate        | 1 | 80.2598 | 0 | 100 | 80 | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 97.6704 | 0 | 100 | 98 | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 95.7484 | 0 | 100 | 96 | 11 | 162 |
| Benzo[a]pyrene             | 1 | 86.0635 | 0 | 100 | 86 | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 89.8322 | 0 | 100 | 90 | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 90.1092 | 0 | 100 | 90 | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 87.6259 | 0 | 100 | 88 | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71497**

8101509 0142

| Data File                            |     | Sample ID:       |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105929.D             |     | AD07161-001(MSD) |             | 10/23/2018 11:08:00 A |          |             |             |
| Non Spike(If applicable): 5M105927.D |     | AD07161-001      |             | 10/23/2018 10:21:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                  |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous  |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 68.2816          | 0           | 100                   | 68       | 20          | 160         |
| Pyridine                             | 1   | 44.349           | 0           | 100                   | 44       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 71.8197          | 0           | 100                   | 72       | 20          | 150         |
| Benzaldehyde                         | 1   | 125.3219         | 0           | 100                   | 125      | 20          | 234         |
| Aniline                              | 1   | 69.1928          | 0           | 100                   | 69       | 20          | 150         |
| Pentachloroethane                    | 1   | 80.7511          | 0           | 100                   | 81       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 75.1887          | 0           | 100                   | 75       | 43          | 126         |
| Phenol                               | 1   | 74.6329          | 0           | 100                   | 75       | 17          | 120         |
| 2-Chlorophenol                       | 1   | 78.1276          | 0           | 100                   | 78       | 36          | 120         |
| N-Decane                             | 1   | 68.0295          | 0           | 100                   | 68       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 69.1102          | 0           | 100                   | 69       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 70.7609          | 0           | 100                   | 71       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 71.9242          | 0           | 100                   | 72       | 25          | 130         |
| Benzyl alcohol                       | 1   | 92.7663          | 0           | 100                   | 93       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 67.7582          | 0           | 100                   | 68       | 63          | 139         |
| 2-Methylphenol                       | 1   | 86.8524          | 0           | 100                   | 87       | 35          | 130         |
| Acetophenone                         | 1   | 94.2778          | 0           | 100                   | 94       | 50          | 130         |
| Hexachloroethane                     | 1   | 69.4415          | 0           | 100                   | 69       | 55          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 76.4395          | 0           | 100                   | 76       | 14          | 198         |
| 3&4-Methylphenol                     | 1   | 81.178           | 0           | 100                   | 81       | 30          | 130         |
| Nitrobenzene                         | 1   | 82.7286          | 0           | 100                   | 83       | 54          | 158         |
| Isophorone                           | 1   | 88.7169          | 0           | 100                   | 89       | 47          | 180         |
| 2-Nitrophenol                        | 1   | 89.8817          | 0           | 100                   | 90       | 45          | 167         |
| 2,4-Dimethylphenol                   | 1   | 78.5171          | 0           | 100                   | 79       | 42          | 120         |
| Benzoic Acid                         | 1   | 41.4355          | 0           | 100                   | 41       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 83.3905          | 0           | 100                   | 83       | 49          | 165         |
| 2,4-Dichlorophenol                   | 1   | 88.7551          | 0           | 100                   | 89       | 53          | 122         |
| 1,2,4-Trichlorobenzene               | 1   | 78.1487          | 0           | 100                   | 78       | 57          | 130         |
| Naphthalene                          | 1   | 78.8212          | 0           | 100                   | 79       | 36          | 120         |
| 4-Chloroaniline                      | 1   | 99.6196          | 0           | 100                   | 100      | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 81.2486          | 0           | 100                   | 81       | 38          | 120         |
| Caprolactam                          | 1   | 99.1742          | 0           | 100                   | 99       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 92.8232          | 0           | 100                   | 93       | 41          | 128         |
| 2-Methylnaphthalene                  | 1   | 97.0789          | 0           | 100                   | 97       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 103.286          | 0           | 100                   | 103      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 86.8566          | 0           | 100                   | 87       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 96.3947          | 0           | 100                   | 96       | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 81.2069          | 0           | 100                   | 81       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 90.732           | 0           | 100                   | 91       | 52          | 129         |
| 2,4,5-Trichlorophenol                | 1   | 91.8772          | 0           | 100                   | 92       | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 87.747           | 0           | 100                   | 88       | 65          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 82.7931          | 0           | 100                   | 83       | 50          | 130         |
| Diphenyl Ether                       | 1   | 100.8384         | 0           | 100                   | 101      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 95.1044          | 0           | 100                   | 95       | 40          | 150         |
| Coumarin                             | 1   | 98.7609          | 0           | 100                   | 99       | 1           | 180         |
| Acenaphthylene                       | 1   | 94.4233          | 0           | 100                   | 94       | 54          | 126         |
| Dimethylphthalate                    | 1   | 90.3794          | 0           | 100                   | 90       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 87.5912          | 0           | 100                   | 88       | 68          | 137         |
| Acenaphthene                         | 1   | 86.3864          | 0           | 100                   | 86       | 60          | 132         |
| 3-Nitroaniline                       | 1   | 110.7095         | 0           | 100                   | 111      | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 98.3072          | 0           | 100                   | 98       | 1           | 173         |
| Dibenzofuran                         | 1   | 96.1558          | 0           | 100                   | 96       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 88.613           | 0           | 100                   | 89       | 48          | 127         |
| 4-Nitrophenol                        | 1   | 72.8742          | 0           | 100                   | 73       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 85.4238          | 0           | 100                   | 85       | 50          | 130         |
| Fluorene                             | 1   | 90.0064          | 0           | 100                   | 90       | 70          | 120         |
| 4-Chlorophenyl-phenylether           | 1   | 88.9804          | 0           | 100                   | 89       | 38          | 145         |
| Diethylphthalate                     | 1   | 90.7178          | 0           | 100                   | 91       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 97.3619          | 0           | 100                   | 97       | 40          | 150         |
| Atrazine                             | 1   | 96.2728          | 0           | 100                   | 96       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 108.4842         | 0           | 100                   | 108      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

# Form3 Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 74.5203 | 0 | 100 | 75  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 89.0789 | 0 | 100 | 89  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 94.5851 | 0 | 100 | 95  | 65 | 120 |
| Hexachlorobenzene          | 1 | 92.6342 | 0 | 100 | 93  | 8  | 142 |
| N-Octadecane               | 1 | 77.9372 | 0 | 100 | 78  | 50 | 130 |
| Pentachlorophenol          | 1 | 99.9717 | 0 | 100 | 100 | 38 | 152 |
| Phenanthrene               | 1 | 88.9241 | 0 | 100 | 89  | 65 | 120 |
| Anthracene                 | 1 | 92.0549 | 0 | 100 | 92  | 43 | 120 |
| Carbazole                  | 1 | 98.5842 | 0 | 100 | 99  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 87.89   | 0 | 100 | 88  | 8  | 120 |
| Fluoranthene               | 1 | 91.0675 | 0 | 100 | 91  | 43 | 121 |
| Pyrene                     | 1 | 96.823  | 0 | 100 | 97  | 70 | 120 |
| Benzidine                  | 1 | 25.6712 | 0 | 100 | 26  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 90.5018 | 0 | 100 | 91  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 87.6906 | 0 | 100 | 88  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 94.1764 | 0 | 100 | 94  | 42 | 133 |
| Chrysene                   | 1 | 87.0349 | 0 | 100 | 87  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 84.5013 | 0 | 100 | 85  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 82.2926 | 0 | 100 | 82  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 97.9836 | 0 | 100 | 98  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 99.8666 | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 89.5215 | 0 | 100 | 90  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.5163 | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 90.6074 | 0 | 100 | 91  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 90.1772 | 0 | 100 | 90  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: WMB71497**

8101509 0144

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 5M105929.D             | AD07161-001(MSD) | 10/23/2018 11:08:00 A |
| Duplicate(If applicable): 5M105928.D | AD07161-001(MS)  | 10/23/2018 10:45:00 A |
| Inst Blank(If applicable):           |                  |                       |
| Method: 625.1                        | Matrix: Aqueous  | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD  | Limit |
|-----------------------------|--------|----------------------|-----------------------|------|-------|
| 1,4-Dioxane                 | 1      | 68.2816              | 79.05                 | 15   | 20    |
| Pyridine                    | 1      | 44.349               | 42.8366               | 3.5  | 40    |
| N-Nitrosodimethylamine      | 1      | 71.8197              | 74.2596               | 3.3  | 20    |
| Benzaldehyde                | 1      | 125.3219             | 138.2068              | 9.8  | 20    |
| Aniline                     | 1      | 69.1928              | 66.4807               | 4    | 20    |
| Pentachloroethane           | 1      | 80.7511              | 87.705                | 8.3  | 20    |
| bis(2-Chloroethyl)ether     | 1      | 75.1887              | 77.0152               | 2.4  | 108   |
| Phenol                      | 1      | 74.6329              | 76.0985               | 1.9  | 64    |
| 2-Chlorophenol              | 1      | 78.1276              | 86.984                | 11   | 61    |
| N-Decane                    | 1      | 68.0295              | 75.8828               | 11   | 20    |
| 1,3-Dichlorobenzene         | 1      | 69.1102              | 72.8177               | 5.2  | 20    |
| 1,4-Dichlorobenzene         | 1      | 70.7609              | 75.3521               | 6.3  | 40    |
| 1,2-Dichlorobenzene         | 1      | 71.9242              | 76.9314               | 6.7  | 20    |
| Benzyl alcohol              | 1      | 92.7663              | 100.2758              | 7.8  | 20    |
| bis(2-chloroisopropyl)ether | 1      | 67.7582              | 69.7337               | 2.9  | 76    |
| 2-Methylphenol              | 1      | 86.8524              | 91.9522               | 5.7  | 40    |
| Acetophenone                | 1      | 94.2778              | 99.8858               | 5.8  | 20    |
| Hexachloroethane            | 1      | 69.4415              | 74.7076               | 7.3  | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 76.4395              | 76.4543               | 0.02 | 87    |
| 3&4-Methylphenol            | 1      | 81.178               | 86.7057               | 6.6  | 40    |
| Nitrobenzene                | 1      | 82.7286              | 83.2033               | 0.57 | 62    |
| Isophorone                  | 1      | 88.7169              | 85.3608               | 3.9  | 93    |
| 2-Nitrophenol               | 1      | 89.8817              | 93.5174               | 4    | 55    |
| 2,4-Dimethylphenol          | 1      | 78.5171              | 80.9145               | 3    | 58    |
| Benzoic Acid                | 1      | 41.4355              | 38.437                | 7.5  | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 83.3905              | 80.3537               | 3.7  | 54    |
| 2,4-Dichlorophenol          | 1      | 88.7551              | 91.7772               | 3.3  | 50    |
| 1,2,4-Trichlorobenzene      | 1      | 78.1487              | 80.8283               | 3.4  | 50    |
| Naphthalene                 | 1      | 78.8212              | 80.0422               | 1.5  | 65    |
| 4-Chloroaniline             | 1      | 99.6196              | 103.1922              | 3.5  | 20    |
| Hexachlorobutadiene         | 1      | 81.2486              | 82.8454               | 1.9  | 62    |
| Caprolactam                 | 1      | 99.1742              | 99.4056               | 0.23 | 20    |
| 4-Chloro-3-methylphenol     | 1      | 92.8232              | 93.8997               | 1.2  | 73    |
| 2-Methylnaphthalene         | 1      | 97.0789              | 100.3154              | 3.3  | 20    |
| 1-Methylnaphthalene         | 1      | 103.286              | 104.404               | 1.1  | 20    |
| 1,1'-Biphenyl               | 1      | 86.8566              | 89.4267               | 2.9  | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 96.3947              | 104.4884              | 8.1  | 20    |
| Hexachlorocyclopentadiene   | 1      | 81.2069              | 78.9205               | 2.9  | 20    |
| 2,4,6-Trichlorophenol       | 1      | 90.732               | 95.9188               | 5.6  | 58    |
| 2,4,5-Trichlorophenol       | 1      | 91.8772              | 95.8201               | 4.2  | 40    |
| 2-Chloronaphthalene         | 1      | 87.747               | 87.2742               | 0.54 | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 82.7931              | 83.1617               | 0.44 | 20    |
| Diphenyl Ether              | 1      | 100.8384             | 106.3235              | 5.3  | 20    |
| 2-Nitroaniline              | 1      | 95.1044              | 97.8076               | 2.8  | 20    |
| Coumarin                    | 1      | 98.7609              | 97.0873               | 1.7  | 20    |
| Acenaphthylene              | 1      | 94.4233              | 94.5488               | 0.13 | 74    |
| Dimethylphthalate           | 1      | 90.3794              | 88.9533               | 1.6  | 183   |
| 2,6-Dinitrotoluene          | 1      | 87.5912              | 82.6502               | 5.8  | 48    |
| Acenaphthene                | 1      | 86.3864              | 89.1847               | 3.2  | 48    |
| 3-Nitroaniline              | 1      | 110.7095             | 114.4031              | 3.3  | 20    |
| 2,4-Dinitrophenol           | 1      | 98.3072              | 97.1961               | 1.1  | 132   |
| Dibenzofuran                | 1      | 96.1558              | 99.8598               | 3.8  | 20    |
| 2,4-Dinitrotoluene          | 1      | 88.613               | 87.1642               | 1.6  | 42    |
| 4-Nitrophenol               | 1      | 72.8742              | 75.3343               | 3.3  | 131   |
| 2,3,4,6-Tetrachlorophenol   | 1      | 85.4238              | 89.0021               | 4.1  | 20    |
| Fluorene                    | 1      | 90.0064              | 88.352                | 1.9  | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 88.9804              | 88.6811               | 0.34 | 61    |
| Diethylphthalate            | 1      | 90.7178              | 86.2868               | 5    | 100   |
| 4-Nitroaniline              | 1      | 97.3619              | 102.1912              | 4.8  | 20    |
| Atrazine                    | 1      | 96.2728              | 96.9905               | 0.74 | 20    |
| 4,6-Dinitro-2-methylphenol  | 1      | 108.4842             | 106.8505              | 1.5  | 203   |
| n-Nitrosodiphenylamine      | 1      | 74.5203              | 71.3249               | 4.4  | 20    |
| 1,2-Diphenylhydrazine       | 1      | 89.0789              | 85.5388               | 4.1  | 20    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0145**

QC Batch: WMB71497

|                            |   |         |         |      |     |
|----------------------------|---|---------|---------|------|-----|
| 4-Bromophenyl-phenylether  | 1 | 94.5851 | 91.4732 | 3.3  | 43  |
| Hexachlorobenzene          | 1 | 92.6342 | 90.6183 | 2.2  | 55  |
| N-Octadecane               | 1 | 77.9372 | 80.5188 | 3.3  | 20  |
| Pentachlorophenol          | 1 | 99.9717 | 97.7678 | 2.2  | 86  |
| Phenanthrene               | 1 | 88.9241 | 87.0894 | 2.1  | 39  |
| Anthracene                 | 1 | 92.0549 | 88.5778 | 3.8  | 66  |
| Carbazole                  | 1 | 98.5842 | 98.0528 | 0.54 | 20  |
| Di-n-butylphthalate        | 1 | 87.89   | 83.6981 | 4.9  | 47  |
| Fluoranthene               | 1 | 91.0675 | 88.1544 | 3.3  | 66  |
| Pyrene                     | 1 | 96.823  | 94.7395 | 2.2  | 49  |
| Benzidine                  | 1 | 25.6712 | 20.4431 | 23 * | 20  |
| Butylbenzylphthalate       | 1 | 90.5018 | 85.8754 | 5.2  | 60  |
| 3,3'-Dichlorobenzidine     | 1 | 87.6906 | 83.0334 | 5.5  | 108 |
| Benzo[a]anthracene         | 1 | 94.1764 | 89.8715 | 4.7  | 53  |
| Chrysene                   | 1 | 87.0349 | 84.295  | 3.2  | 87  |
| bis(2-Ethylhexyl)phthalate | 1 | 84.5013 | 80.3978 | 5    | 82  |
| Di-n-octylphthalate        | 1 | 82.2926 | 80.2598 | 2.5  | 69  |
| Benzo[b]fluoranthene       | 1 | 97.9836 | 97.6704 | 0.32 | 71  |
| Benzo[k]fluoranthene       | 1 | 99.8666 | 95.7484 | 4.2  | 63  |
| Benzo[a]pyrene             | 1 | 89.5215 | 86.0635 | 3.9  | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.5163 | 89.8322 | 1.9  | 99  |
| Dibenzo[a,h]anthracene     | 1 | 90.6074 | 90.1092 | 0.55 | 126 |
| Benzo[g,h,i]perylene       | 1 | 90.1772 | 87.6259 | 2.9  | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**FORM 4**  
Blank Summary

Blank Number: WMB71471  
Blank Data File: 5M105872.D  
Matrix: Aqueous

Blank Analysis Date: 10/19/18 10:48  
Blank Extraction Date: 10/18/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number    | Data File  | Analysis Date  |
|------------------|------------|----------------|
| AD07118-001      | 5M105877.D | 10/19/18 12:44 |
| AD07118-003      | 5M105878.D | 10/19/18 13:08 |
| AD07118-005      | 5M105879.D | 10/19/18 13:31 |
| AD07118-007      | 5M105880.D | 10/19/18 13:55 |
| AD07093-001(T)(M | 10M71443.D | 10/19/18 12:04 |
| AD07093-001(T)(M | 10M71442.D | 10/19/18 11:42 |
| AD07093-001(T)   | 10M71441.D | 10/19/18 11:20 |
| WMB71471(MS)     | 10M71439.D | 10/19/18 10:35 |

**FORM 4**  
Blank Summary

Blank Number: WMB71479  
Blank Data File: 5M105881.D  
Matrix: Aqueous

Blank Analysis Date: 10/19/18 14:23  
Blank Extraction Date: 10/19/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number    | Data File  | Analysis Date  |
|------------------|------------|----------------|
| AD07137-001      | 5M105905.D | 10/22/18 11:41 |
| AD07137-003      | 5M105906.D | 10/22/18 12:04 |
| AD07137-005      | 5M105907.D | 10/22/18 12:28 |
| WMB71479(MS)     | 7M95306.D  | 10/19/18 14:26 |
| AD06939-001(T)(M | 5M105899.D | 10/22/18 09:21 |
| AD06939-001(T)(M | 5M105898.D | 10/22/18 08:58 |
| AD06939-001(T)   | 5M105897.D | 10/22/18 08:35 |

**FORM 4**  
Blank Summary

Blank Number: SMB71480  
Blank Data File: 9M88665.D  
Matrix: Soil

Blank Analysis Date: 10/19/18 18:17  
Blank Extraction Date: 10/19/18  
(If Applicable)  
Method: EPA 8270D

| Sample Number    | Data File  | Analysis Date  |
|------------------|------------|----------------|
| AD07161-002      | 9M88680.D  | 10/20/18 00:07 |
| AD07161-004      | 9M88681.D  | 10/20/18 00:31 |
| AD07161-006      | 9M88682.D  | 10/20/18 00:54 |
| AD07161-009      | 9M88683.D  | 10/20/18 01:17 |
| SMB71480(MS)     | 10M71458.D | 10/19/18 18:08 |
| AD07136-003      | 10M71459.D | 10/19/18 18:30 |
| AD07136-003(MS)  | 10M71460.D | 10/19/18 18:52 |
| AD07136-003(MSD) | 10M71461.D | 10/19/18 19:14 |

**FORM 4**  
Blank Summary

Blank Number: WMB71496  
Blank Data File: 5M105913.D  
Matrix: Aqueous

Blank Analysis Date: 10/22/18 14:49  
Blank Extraction Date: 10/22/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number  | Data File  | Analysis Date  |
|----------------|------------|----------------|
| AD07118-003(R) | 10M71486.D | 10/22/18 16:15 |
| WMB71496(MS)   | 5M105911.D | 10/22/18 14:01 |



**FORM 4**  
Blank Summary

Blank Number: WMB71497  
Blank Data File: 7M95313.D  
Matrix: Aqueous

Blank Analysis Date: 10/23/18 11:54  
Blank Extraction Date: 10/22/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number    | Data File  | Analysis Date  |
|------------------|------------|----------------|
| AD07161-003      | 7M95317.D  | 10/24/18 09:32 |
| AD07161-005      | 7M95318.D  | 10/24/18 09:55 |
| AD07161-007      | 7M95319.D  | 10/24/18 10:18 |
| AD07161-008      | 7M95320.D  | 10/24/18 10:41 |
| AD07161-001(MSD) | 5M105929.D | 10/23/18 11:08 |
| AD07161-001(MS)  | 5M105928.D | 10/23/18 10:45 |
| AD07161-001      | 5M105927.D | 10/23/18 10:21 |
| WMB71497(MS)     | 5M105925.D | 10/23/18 09:35 |

**FORM 4**  
Blank Summary

Blank Number: WMB71518  
Blank Data File: 5M105969.D  
Matrix: Aqueous

Blank Analysis Date: 10/25/18 10:28  
Blank Extraction Date: 10/24/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number  | Data File  | Analysis Date  |
|----------------|------------|----------------|
| AD07161-001(R) | 5M105976.D | 10/25/18 13:19 |
| WMB71518(MS)   | 5M105968.D | 10/25/18 10:04 |

**FORM 4**  
Blank Summary

Blank Number: WMB71532  
Blank Data File: 5M105980.D  
Matrix: Aqueous

Blank Analysis Date: 10/25/18 14:53  
Blank Extraction Date: 10/25/18  
(If Applicable)  
Method: EPA 625.1

| Sample Number  | Data File  | Analysis Date  |
|----------------|------------|----------------|
| AD07161-003(R) | 7M95353.D  | 10/26/18 13:16 |
| AD07161-005(R) | 7M95354.D  | 10/26/18 13:38 |
| AD07161-007(R) | 7M95355.D  | 10/26/18 14:01 |
| AD07161-008(R) | 7M95356.D  | 10/26/18 14:25 |
| WMB71532(MS)   | 5M105990.D | 10/26/18 09:22 |

## Form 5

8101509 0153

Tune Name: CAL DFTPP

Data File: 10M71228.D

Instrument: GCMS 10

Analysis Date: 10/08/18 08:27

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.071 to 10.076 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 33.7  | 31368 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.5   | 506   | PASS  |
| 69   | 198  | 0.00 | 100 | 37.0  | 34444 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 151   | PASS  |
| 127  | 198  | 40   | 60  | 48.5  | 45148 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 93088 | PASS  |
| 199  | 198  | 5    | 9   | 5.8   | 5379  | PASS  |
| 275  | 198  | 10   | 30  | 23.9  | 22288 | PASS  |
| 365  | 198  | 1    | 100 | 2.8   | 2610  | PASS  |
| 441  | 443  | 0.01 | 100 | 66.2  | 8665  | PASS  |
| 442  | 198  | 40   | 100 | 69.8  | 64968 | PASS  |
| 443  | 442  | 17   | 23  | 20.2  | 13098 | PASS  |

| Data File  | Sample Number | Analysis Date: |
|------------|---------------|----------------|
| 10M71229.D | CAL BNA@10PPM | 10/08/18 08:51 |
| 10M71230.D | CAL BNA@2PPM  | 10/08/18 09:15 |
| 10M71231.D | CAL BNA@196PP | 10/08/18 09:38 |
| 10M71232.D | CAL BNA@160PP | 10/08/18 10:00 |
| 10M71233.D | CAL BNA@120PP | 10/08/18 10:22 |
| 10M71234.D | CAL BNA@80PPM | 10/08/18 10:44 |
| 10M71235.D | CAL BNA@20PPM | 10/08/18 11:06 |
| 10M71236.D | CAL BNA@.5PPM | 10/08/18 11:28 |
| 10M71237.D | CAL BNA@50PPM | 10/08/18 11:51 |
| 10M71238.D | ICV BNA@50PPM | 10/08/18 12:15 |

## Form 5

8101509 0154

Tune Name: CAL DFTPP

Data File: 5M105686.D

Instrument: GCMS 5

Analysis Date: 10/08/18 08:31

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.893 to 9.898 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw    | Pass/ |
|------|------|------|-----|-------|--------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund  | Fail  |
| 51   | 198  | 30   | 60  | 42.9  | 49432  | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      | PASS  |
| 69   | 198  | 0.00 | 100 | 41.9  | 48280  | PASS  |
| 70   | 69   | 0.00 | 2   | 0.6   | 274    | PASS  |
| 127  | 198  | 40   | 60  | 51.9  | 59880  | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 115296 | PASS  |
| 199  | 198  | 5    | 9   | 6.9   | 7977   | PASS  |
| 275  | 198  | 10   | 30  | 19.9  | 22916  | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 2483   | PASS  |
| 441  | 443  | 0.01 | 100 | 78.8  | 7853   | PASS  |
| 442  | 198  | 40   | 100 | 43.7  | 50428  | PASS  |
| 443  | 442  | 17   | 23  | 19.8  | 9961   | PASS  |

| Data File  | Sample Number | Analysis Date: |
|------------|---------------|----------------|
| 5M105687.D | CAL BNA@10PPM | 10/08/18 08:57 |
| 5M105688.D | CAL BNA@2PPM  | 10/08/18 09:20 |
| 5M105689.D | CAL BNA@196PP | 10/08/18 09:45 |
| 5M105690.D | CAL BNA@160PP | 10/08/18 10:11 |
| 5M105691.D | CAL BNA@120PP | 10/08/18 10:34 |
| 5M105692.D | CAL BNA@80PPM | 10/08/18 10:57 |
| 5M105693.D | CAL BNA@20PPM | 10/08/18 11:26 |
| 5M105694.D | CAL BNA@.5PPM | 10/08/18 11:49 |
| 5M105695.D | CAL BNA@50PPM | 10/08/18 12:12 |
| 5M105696.D | CAL BNA@2PPM  | 10/08/18 12:40 |
| 5M105697.D | ICV BNA@50PPM | 10/08/18 13:09 |

## Form 5

Tune Name: CAL DFTPP

Data File: 7M95168.D

Instrument: GCMS 7

Analysis Date: 10/08/18 12:40

Method: EPA 625.1

Tune Scan/Time Range: Scan 1442

| Tgt  | Rel  | Lo   | Hi  | Lim   | Rel    | Raw   | Pass/ |
|------|------|------|-----|-------|--------|-------|-------|
| Mass | Mass | Lim  |     |       | Abund  | Abund | Fail  |
| 51   | 198  | 30   | 60  | 37.5  | 38048  |       | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      |       | PASS  |
| 69   | 198  | 0.00 | 100 | 44.4  | 45008  |       | PASS  |
| 70   | 69   | 0.00 | 2   | 1.5   | 676    |       | PASS  |
| 127  | 198  | 40   | 60  | 55.7  | 56512  |       | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      |       | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 101376 |       | PASS  |
| 199  | 198  | 5    | 9   | 7.2   | 7306   |       | PASS  |
| 275  | 198  | 10   | 30  | 20.2  | 20520  |       | PASS  |
| 365  | 198  | 1    | 100 | 1.9   | 1910   |       | PASS  |
| 441  | 443  | 0.01 | 100 | 71.6  | 6775   |       | PASS  |
| 442  | 198  | 40   | 100 | 44.9  | 45488  |       | PASS  |
| 443  | 442  | 17   | 23  | 20.8  | 9464   |       | PASS  |

| Data File | Sample Number    | Analysis Date: |
|-----------|------------------|----------------|
| 7M95169.D | CAL BNA@10PPM    | 10/08/18 13:05 |
| 7M95170.D | CAL BNA@196PP    | 10/08/18 13:29 |
| 7M95171.D | CAL BNA@160PP    | 10/08/18 13:53 |
| 7M95172.D | CAL BNA@120PP    | 10/08/18 14:16 |
| 7M95173.D | CAL BNA@80PPM    | 10/08/18 14:40 |
| 7M95174.D | CAL BNA@20PPM    | 10/08/18 15:03 |
| 7M95175.D | CAL BNA@2PPM     | 10/08/18 15:27 |
| 7M95176.D | CAL BNA@0.5PP    | 10/08/18 15:50 |
| 7M95177.D | CAL BNA@50PPM    | 10/08/18 16:13 |
| 7M95178.D | ICV BNA@50PPM    | 10/08/18 16:37 |
| 7M95179.D | OMB71379         | 10/08/18 17:00 |
| 7M95180.D | OMB71380         | 10/08/18 17:23 |
| 7M95181.D | AD06831-001      | 10/08/18 17:47 |
| 7M95182.D | AD06831-003      | 10/08/18 18:10 |
| 7M95183.D | AD06831-004      | 10/08/18 18:33 |
| 7M95184.D | AD06831-005      | 10/08/18 18:56 |
| 7M95185.D | AD06832-001      | 10/08/18 19:20 |
| 7M95186.D | AD06832-002      | 10/08/18 19:43 |
| 7M95187.D | AD06832-003      | 10/08/18 20:06 |
| 7M95188.D | AD06832-004      | 10/08/18 20:29 |
| 7M95189.D | AD06832-005      | 10/08/18 20:52 |
| 7M95190.D | 06832-005        | 10/08/18 21:15 |
| 7M95191.D | AD06832-006      | 10/08/18 21:38 |
| 7M95192.D | AD06832-004(MS)  | 10/08/18 22:01 |
| 7M95193.D | AD06832-004(MSD) | 10/08/18 22:24 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 9

Data File: 9M88300.D  
Analysis Date: 10/08/18 09:00  
Method: EPA 8270D

Tune Scan/Time Range: Scan 2729

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 38.5  | 33312 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 69   | 198  | 0.00 | 100 | 40.6  | 35104 | PASS  |
| 70   | 69   | 0.00 | 2   | 1.1   | 399   | PASS  |
| 127  | 198  | 40   | 60  | 50.6  | 43800 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 86488 | PASS  |
| 199  | 198  | 5    | 9   | 7.9   | 6819  | PASS  |
| 275  | 198  | 10   | 30  | 24.2  | 20936 | PASS  |
| 365  | 198  | 1    | 100 | 2.4   | 2041  | PASS  |
| 441  | 443  | 0.01 | 100 | 90.6  | 10462 | PASS  |
| 442  | 198  | 40   | 100 | 63.4  | 54824 | PASS  |
| 443  | 442  | 17   | 23  | 21.1  | 11550 | PASS  |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 9M88301.D | CAL BNA@10PPM | 10/08/18 10:20 |
| 9M88302.D | CAL BNA@2PPM  | 10/08/18 10:42 |
| 9M88303.D | CAL BNA@196PP | 10/08/18 11:05 |
| 9M88304.D | CAL BNA@160PP | 10/08/18 11:29 |
| 9M88305.D | CAL BNA@120PP | 10/08/18 11:52 |
| 9M88306.D | CAL BNA@80PPM | 10/08/18 12:15 |
| 9M88307.D | CAL BNA@20PPM | 10/08/18 12:38 |
| 9M88308.D | CAL BNA@.5PPM | 10/08/18 13:02 |
| 9M88309.D | CAL BNA@50PPM | 10/08/18 13:26 |
| 9M88310.D | ICV BNA@50PPM | 10/08/18 13:50 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 10

Data File: 10M71436.D  
Analysis Date: 10/19/18 09:05  
Method: EPA 8270D

Tune Scan/Time Range: Average of 10.060 to 10.071 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 43.3  | 25080 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.7   | 436   | PASS  |
| 69   | 198  | 0.00 | 100 | 44.8  | 25958 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 127  | 198  | 40   | 60  | 53.5  | 30984 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.4   | 243   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 57893 | PASS  |
| 199  | 198  | 5    | 9   | 6.8   | 3942  | PASS  |
| 275  | 198  | 10   | 30  | 20.5  | 11856 | PASS  |
| 365  | 198  | 1    | 100 | 3.5   | 2007  | PASS  |
| 441  | 443  | 0.01 | 100 | 68.5  | 4393  | PASS  |
| 442  | 198  | 40   | 100 | 53.0  | 30661 | PASS  |
| 443  | 442  | 17   | 23  | 20.9  | 6414  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 10M71437.D | CAL BNA@50PPM     | 10/19/18 09:35 |
| 10M71438.D | WMB71471          | 10/19/18 10:13 |
| 10M71439.D | WMB71471(MS)      | 10/19/18 10:35 |
| 10M71440.D | SMB71470          | 10/19/18 10:58 |
| 10M71441.D | AD07093-001(T)    | 10/19/18 11:20 |
| 10M71442.D | AD07093-001(T)(M) | 10/19/18 11:42 |
| 10M71443.D | AD07093-001(T)(M) | 10/19/18 12:04 |
| 10M71444.D | SMB71470          | 10/19/18 12:26 |
| 10M71445.D | AD07121-001       | 10/19/18 12:48 |
| 10M71446.D | WMB71471          | 10/19/18 13:10 |
| 10M71447.D | AD07121-002       | 10/19/18 13:32 |
| 10M71448.D | AD07121-003       | 10/19/18 13:55 |
| 10M71449.D | AD07121-004       | 10/19/18 14:17 |
| 10M71450.D | WMB71479          | 10/19/18 14:39 |
| 10M71451.D | AD07121-006       | 10/19/18 15:01 |
| 10M71452.D | AD07121-007       | 10/19/18 15:23 |
| 10M71453.D | AD07121-008       | 10/19/18 15:45 |
| 10M71454.D | AD07037-001(10X)  | 10/19/18 16:08 |
| 10M71455.D | AD07037-002(20X)  | 10/19/18 16:30 |
| 10M71456.D | SMB71480          | 10/19/18 17:24 |
| 10M71457.D | SMB71481          | 10/19/18 17:46 |
| 10M71458.D | SMB71480(MS)      | 10/19/18 18:08 |
| 10M71459.D | AD07136-003       | 10/19/18 18:30 |
| 10M71460.D | AD07136-003(MS)   | 10/19/18 18:52 |
| 10M71461.D | AD07136-003(MSD)  | 10/19/18 19:14 |
| 10M71462.D | AD07185-007       | 10/19/18 19:37 |



## Form 5

8101509 0158

Tune Name: CAL DFTPP

Data File: 10M71436.D

Instrument: GCMS 10

Analysis Date: 10/19/18 09:05

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.060 to 10.071 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 43.3  | 25080 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.7   | 436   | PASS  |
| 69   | 198  | 0.00 | 100 | 44.8  | 25958 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 127  | 198  | 40   | 60  | 53.5  | 30984 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.4   | 243   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 57893 | PASS  |
| 199  | 198  | 5    | 9   | 6.8   | 3942  | PASS  |
| 275  | 198  | 10   | 30  | 20.5  | 11856 | PASS  |
| 365  | 198  | 1    | 100 | 3.5   | 2007  | PASS  |
| 441  | 443  | 0.01 | 100 | 68.5  | 4393  | PASS  |
| 442  | 198  | 40   | 100 | 53.0  | 30661 | PASS  |
| 443  | 442  | 17   | 23  | 20.9  | 6414  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 10M71437.D | CAL BNA@50PPM     | 10/19/18 09:35 |
| 10M71438.D | WMB71471          | 10/19/18 10:13 |
| 10M71439.D | WMB71471(MS)      | 10/19/18 10:35 |
| 10M71440.D | SMB71470          | 10/19/18 10:58 |
| 10M71441.D | AD07093-001(T)    | 10/19/18 11:20 |
| 10M71442.D | AD07093-001(T)(M) | 10/19/18 11:42 |
| 10M71443.D | AD07093-001(T)(M) | 10/19/18 12:04 |
| 10M71444.D | SMB71470          | 10/19/18 12:26 |
| 10M71445.D | AD07121-001       | 10/19/18 12:48 |
| 10M71446.D | WMB71471          | 10/19/18 13:10 |
| 10M71447.D | AD07121-002       | 10/19/18 13:32 |
| 10M71448.D | AD07121-003       | 10/19/18 13:55 |
| 10M71449.D | AD07121-004       | 10/19/18 14:17 |
| 10M71450.D | WMB71479          | 10/19/18 14:39 |
| 10M71451.D | AD07121-006       | 10/19/18 15:01 |
| 10M71452.D | AD07121-007       | 10/19/18 15:23 |
| 10M71453.D | AD07121-008       | 10/19/18 15:45 |
| 10M71454.D | AD07037-001(10X)  | 10/19/18 16:08 |
| 10M71455.D | AD07037-002(20X)  | 10/19/18 16:30 |
| 10M71456.D | SMB71480          | 10/19/18 17:24 |
| 10M71457.D | SMB71481          | 10/19/18 17:46 |
| 10M71458.D | SMB71480(MS)      | 10/19/18 18:08 |
| 10M71459.D | AD07136-003       | 10/19/18 18:30 |
| 10M71460.D | AD07136-003(MS)   | 10/19/18 18:52 |
| 10M71461.D | AD07136-003(MSD)  | 10/19/18 19:14 |
| 10M71462.D | AD07185-007       | 10/19/18 19:37 |

## Form 5

8101509 0159

Tune Name: CAL DFTPP

Data File: 5M105870.D

Instrument: GCMS 5

Analysis Date: 10/19/18 09:08

Method: EPA 625.1

Tune Scan/Time Range: Scan 1406

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 39.3  | 38408 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 69   | 198  | 0.00 | 100 | 37.8  | 36904 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 155   | PASS  |
| 127  | 198  | 40   | 60  | 49.1  | 47968 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 97704 | PASS  |
| 199  | 198  | 5    | 9   | 7.4   | 7230  | PASS  |
| 275  | 198  | 10   | 30  | 20.5  | 20024 | PASS  |
| 365  | 198  | 1    | 100 | 2.3   | 2243  | PASS  |
| 441  | 443  | 0.01 | 100 | 75.7  | 7521  | PASS  |
| 442  | 198  | 40   | 100 | 49.0  | 47904 | PASS  |
| 443  | 442  | 17   | 23  | 20.7  | 9932  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 5M105871.D | CAL BNA@50PPM    | 10/19/18 09:44 |
| 5M105872.D | WMB71471         | 10/19/18 10:48 |
| 5M105873.D | AD07120-001      | 10/19/18 11:12 |
| 5M105874.D | AD07120-002      | 10/19/18 11:35 |
| 5M105875.D | AD07115-001      | 10/19/18 11:58 |
| 5M105876.D | AD07115-002      | 10/19/18 12:21 |
| 5M105877.D | AD07118-001      | 10/19/18 12:44 |
| 5M105878.D | AD07118-003      | 10/19/18 13:08 |
| 5M105879.D | AD07118-005      | 10/19/18 13:31 |
| 5M105880.D | AD07118-007      | 10/19/18 13:55 |
| 5M105881.D | WMB71479         | 10/19/18 14:23 |
| 5M105882.D | AD07072-007(R)   | 10/19/18 14:46 |
| 5M105883.D | AD07081-015(R)   | 10/19/18 16:02 |
| 5M105884.D | AD07081-017(R)   | 10/19/18 16:25 |
| 5M105885.D | AD07113-001(R)   | 10/19/18 16:48 |
| 5M105886.D | AD07113-001(5X)( | 10/19/18 17:11 |
| 5M105887.D | SMB71481         | 10/19/18 17:34 |
| 5M105888.D | SMB71480         | 10/19/18 17:57 |
| 5M105889.D | SMB71481(MS)     | 10/19/18 18:21 |
| 5M105890.D | AD07178-001      | 10/19/18 18:43 |
| 5M105891.D | AD07178-001(MS)  | 10/19/18 19:06 |
| 5M105892.D | AD07178-001(MSD) | 10/19/18 19:29 |
| 5M105893.D | AD07178-002      | 10/19/18 19:52 |
| 5M105894.D | AD07113-001(R)   | 10/19/18 20:15 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 7

Data File: 7M95304.D  
Analysis Date: 10/19/18 09:03  
Method: EPA 625.1

Tune Scan/Time Range: Scan 1438

| Tgt  | Rel  | Lo   | Hi  | Lim   | Rel    | Raw   | Pass/ |
|------|------|------|-----|-------|--------|-------|-------|
| Mass | Mass | Lim  |     |       | Abund  | Abund | Fail  |
| 51   | 198  | 30   | 60  | 32.7  | 49008  |       | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      |       | PASS  |
| 69   | 198  | 0.00 | 100 | 40.0  | 59872  |       | PASS  |
| 70   | 69   | 0.00 | 2   | 0.5   | 286    |       | PASS  |
| 127  | 198  | 40   | 60  | 54.4  | 81440  |       | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      |       | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 149696 |       | PASS  |
| 199  | 198  | 5    | 9   | 6.8   | 10117  |       | PASS  |
| 275  | 198  | 10   | 30  | 21.2  | 31784  |       | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 3289   |       | PASS  |
| 441  | 443  | 0.01 | 100 | 75.7  | 10642  |       | PASS  |
| 442  | 198  | 40   | 100 | 47.6  | 71184  |       | PASS  |
| 443  | 442  | 17   | 23  | 19.7  | 14052  |       | PASS  |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 7M95305.D | CAL BNA@50PPM | 10/19/18 09:41 |
| 7M95306.D | WMB71479(MS)  | 10/19/18 14:26 |
| 7M95307.D | WMB71479      | 10/19/18 14:49 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 9

Data File: 9M88659.D  
Analysis Date: 10/19/18 15:42  
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.983 to 9.994 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 47.2  | 26370 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.6   | 145   | PASS  |
| 69   | 198  | 0.00 | 100 | 45.0  | 25114 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.6   | 141   | PASS  |
| 127  | 198  | 40   | 60  | 54.5  | 30442 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 55818 | PASS  |
| 199  | 198  | 5    | 9   | 7.3   | 4061  | PASS  |
| 275  | 198  | 10   | 30  | 24.8  | 13844 | PASS  |
| 365  | 198  | 1    | 100 | 3.3   | 1855  | PASS  |
| 441  | 443  | 0.01 | 100 | 16.7  | 1212  | PASS  |
| 442  | 198  | 40   | 100 | 58.4  | 32579 | PASS  |
| 443  | 442  | 17   | 23  | 22.2  | 7246  | PASS  |

| Data File | Sample Number    | Analysis Date: |
|-----------|------------------|----------------|
| 9M88660.D | CAL BNA@50PPM    | 10/19/18 16:02 |
| 9M88661.D | AD07079-016      | 10/19/18 16:43 |
| 9M88662.D | AD07079-017      | 10/19/18 17:06 |
| 9M88663.D | AD07116-005      | 10/19/18 17:30 |
| 9M88664.D | AD07116-003      | 10/19/18 17:52 |
| 9M88665.D | SMB71480         | 10/19/18 18:17 |
| 9M88666.D | SMB71481         | 10/19/18 18:40 |
| 9M88667.D | AD07116-001      | 10/19/18 19:03 |
| 9M88668.D | AD07116-002      | 10/19/18 19:27 |
| 9M88669.D | AD07116-004      | 10/19/18 19:50 |
| 9M88670.D | AD07079-013(3X)  | 10/19/18 20:13 |
| 9M88671.D | AD07109-002      | 10/19/18 20:37 |
| 9M88672.D | AD07079-004      | 10/19/18 21:00 |
| 9M88673.D | AD07079-002(3X)  | 10/19/18 21:24 |
| 9M88674.D | AD07079-003(3X)  | 10/19/18 21:47 |
| 9M88675.D | 07131-001        | 10/19/18 22:10 |
| 9M88676.D | AD07136-001      | 10/19/18 22:34 |
| 9M88677.D | AD07136-002      | 10/19/18 22:57 |
| 9M88678.D | AD07136-004      | 10/19/18 23:20 |
| 9M88679.D | AD07159-001      | 10/19/18 23:44 |
| 9M88680.D | AD07161-002      | 10/20/18 00:07 |
| 9M88681.D | AD07161-004      | 10/20/18 00:31 |
| 9M88682.D | AD07161-006      | 10/20/18 00:54 |
| 9M88683.D | AD07161-009      | 10/20/18 01:17 |
| 9M88684.D | AD07177-001      | 10/20/18 01:41 |
| 9M88685.D | AD07185-002      | 10/20/18 02:05 |
| 9M88686.D | AD07185-004      | 10/20/18 02:28 |
| 9M88687.D | AD07185-006      | 10/20/18 02:51 |
| 9M88688.D | AD07185-001(3X)  | 10/20/18 03:15 |
| 9M88689.D | AD07185-003(3X)  | 10/20/18 03:38 |
| 9M88690.D | AD07185-005(3X)  | 10/20/18 04:02 |
| 9M88691.D | AD07185-011(3X)  | 10/20/18 04:25 |
| 9M88692.D | AD07152-001(10X) | 10/20/18 04:49 |

## Form 5

8101509 0162

Tune Name: CAL DFTPP

Data File: 5M105895.D

Instrument: GCMS 5

Analysis Date: 10/22/18 07:18

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.899 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 41.1  | 30557 | PASS  |
| 68   | 69   | 0.00 | 2   | 2.0   | 590   | PASS  |
| 69   | 198  | 0.00 | 100 | 39.7  | 29579 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 129   | PASS  |
| 127  | 198  | 40   | 60  | 50.4  | 37533 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.3   | 230   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 74424 | PASS  |
| 199  | 198  | 5    | 9   | 7.0   | 5229  | PASS  |
| 275  | 198  | 10   | 30  | 21.0  | 15595 | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 1660  | PASS  |
| 441  | 443  | 0.01 | 100 | 79.1  | 5128  | PASS  |
| 442  | 198  | 40   | 100 | 43.4  | 32304 | PASS  |
| 443  | 442  | 17   | 23  | 20.1  | 6483  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 5M105896.D | CAL BNA@50PPM     | 10/22/18 07:52 |
| 5M105897.D | AD06939-001(T)    | 10/22/18 08:35 |
| 5M105898.D | AD06939-001(T)(M) | 10/22/18 08:58 |
| 5M105899.D | AD06939-001(T)(M) | 10/22/18 09:21 |
| 5M105900.D | AD07133-001       | 10/22/18 09:44 |
| 5M105901.D | AD07133-002       | 10/22/18 10:07 |
| 5M105902.D | AD07131-001       | 10/22/18 10:31 |
| 5M105903.D | AD07131-002       | 10/22/18 10:54 |
| 5M105904.D | AD07142-001       | 10/22/18 11:17 |
| 5M105905.D | AD07137-001       | 10/22/18 11:41 |
| 5M105906.D | AD07137-003       | 10/22/18 12:04 |
| 5M105907.D | AD07137-005       | 10/22/18 12:28 |
| 5M105908.D | AD06821-001(T)    | 10/22/18 12:52 |
| 5M105909.D | AD06980-005(T)    | 10/22/18 13:15 |
| 5M105910.D | EF-SPLP V-289066  | 10/22/18 13:38 |
| 5M105911.D | WMB71496(MS)      | 10/22/18 14:01 |
| 5M105912.D | AD07157-001(T)    | 10/22/18 14:25 |
| 5M105913.D | WMB71496          | 10/22/18 14:49 |
| 5M105914.D | EF-1 V-289820(10/ | 10/22/18 15:12 |
| 5M105915.D | AD07157-001(T)(M) | 10/22/18 15:36 |
| 5M105916.D | AD07157-001(T)(M) | 10/22/18 15:59 |
| 5M105917.D | AD07132-001(T)    | 10/22/18 16:22 |
| 5M105918.D | AD06943-001(T)    | 10/22/18 16:45 |
| 5M105919.D | EF-1 V-289820(10/ | 10/22/18 17:08 |
| 5M105920.D | EF-1 V-289820(10/ | 10/22/18 17:31 |
| 5M105921.D | EF-SPLP V-289066  | 10/22/18 17:54 |
| 5M105922.D | EF-SPLP V-289066  | 10/22/18 18:18 |

## Form 5

8101509 0163

Tune Name: CAL DFTPP

Data File: 10M71463.D

Instrument: GCMS 10

Analysis Date: 10/22/18 07:18

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.066 to 10.082 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 34.6  | 24066 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.2   | 290   | PASS  |
| 69   | 198  | 0.00 | 100 | 35.6  | 24732 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 91    | PASS  |
| 127  | 198  | 40   | 60  | 46.7  | 32459 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.6   | 395   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 69460 | PASS  |
| 199  | 198  | 5    | 9   | 6.9   | 4782  | PASS  |
| 275  | 198  | 10   | 30  | 23.1  | 16073 | PASS  |
| 365  | 198  | 1    | 100 | 3.2   | 2235  | PASS  |
| 441  | 443  | 0.01 | 100 | 75.3  | 6378  | PASS  |
| 442  | 198  | 40   | 100 | 63.1  | 43801 | PASS  |
| 443  | 442  | 17   | 23  | 19.3  | 8467  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 10M71464.D | CAL BNA@50PPM    | 10/22/18 07:45 |
| 10M71465.D | SMB71491(MS)     | 10/22/18 08:30 |
| 10M71466.D | SMB71491         | 10/22/18 08:52 |
| 10M71467.D | AD07224-001      | 10/22/18 09:14 |
| 10M71468.D | AD07224-001(MS)  | 10/22/18 09:36 |
| 10M71469.D | AD07224-001(MSD) | 10/22/18 09:59 |
| 10M71470.D | AD07224-002      | 10/22/18 10:21 |
| 10M71471.D | AD07224-003      | 10/22/18 10:43 |
| 10M71472.D | AD07224-004      | 10/22/18 11:05 |
| 10M71473.D | AD07190-009      | 10/22/18 11:27 |
| 10M71474.D | AD07190-011      | 10/22/18 11:50 |
| 10M71475.D | AD07189-001      | 10/22/18 12:12 |
| 10M71476.D | AD07143-001      | 10/22/18 12:34 |
| 10M71477.D | AD07143-002      | 10/22/18 12:56 |
| 10M71478.D | AD07143-003      | 10/22/18 13:18 |
| 10M71479.D | AD07143-004      | 10/22/18 13:41 |
| 10M71480.D | AD07157-002(T)   | 10/22/18 14:03 |
| 10M71481.D | AD07157-003(T)   | 10/22/18 14:25 |
| 10M71482.D | AD07157-004(T)   | 10/22/18 14:47 |
| 10M71483.D | AD07143-005      | 10/22/18 15:09 |
| 10M71484.D | WMB71496         | 10/22/18 15:31 |
| 10M71485.D | AD07022-012      | 10/22/18 15:53 |
| 10M71486.D | AD07118-003(R)   | 10/22/18 16:15 |
| 10M71487.D | AD07143-004      | 10/22/18 16:38 |

## Form 5

Tune Name: CAL DFTPP

Data File: 5M105923.D

Instrument: GCMS 5

Analysis Date: 10/23/18 08:15

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.893 to 9.899 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 38.7  | 27993 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.6   | 151   | PASS  |
| 69   | 198  | 0.00 | 100 | 37.6  | 27180 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.5   | 137   | PASS  |
| 127  | 198  | 40   | 60  | 49.0  | 35472 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 72356 | PASS  |
| 199  | 198  | 5    | 9   | 6.3   | 4594  | PASS  |
| 275  | 198  | 10   | 30  | 22.2  | 16051 | PASS  |
| 365  | 198  | 1    | 100 | 2.9   | 2126  | PASS  |
| 441  | 443  | 0.01 | 100 | 80.1  | 6460  | PASS  |
| 442  | 198  | 40   | 100 | 58.5  | 42328 | PASS  |
| 443  | 442  | 17   | 23  | 19.0  | 8061  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 5M105924.D | CAL BNA@50PPM    | 10/23/18 08:44 |
| 5M105925.D | WMB71497(MS)     | 10/23/18 09:35 |
| 5M105926.D | WMB71497         | 10/23/18 09:58 |
| 5M105927.D | AD07161-001      | 10/23/18 10:21 |
| 5M105928.D | AD07161-001(MS)  | 10/23/18 10:45 |
| 5M105929.D | AD07161-001(MSD) | 10/23/18 11:08 |
| 5M105930.D | AD07150-001      | 10/23/18 11:32 |
| 5M105931.D | AD07150-002      | 10/23/18 11:55 |
| 5M105932.D | AD07150-003      | 10/23/18 12:19 |
| 5M105933.D | AD07149-008      | 10/23/18 12:42 |
| 5M105934.D | WMB71497         | 10/23/18 13:29 |
| 5M105935.D | AD07142-003      | 10/23/18 13:53 |
| 5M105936.D | AD07142-004      | 10/23/18 14:17 |
| 5M105937.D | AD07249-006(T)   | 10/23/18 14:40 |
| 5M105938.D | AD07249-009(T)   | 10/23/18 15:03 |
| 5M105939.D | AD07249-010(T)   | 10/23/18 15:27 |
| 5M105940.D | AD07142-005      | 10/23/18 15:50 |
| 5M105941.D | AD07142-006      | 10/23/18 16:14 |
| 5M105942.D | AD07142-007      | 10/23/18 16:37 |
| 5M105943.D | AD07142-008      | 10/23/18 17:00 |

## Form 5

Tune Name: CAL DFTPP

Data File: 7M95310.D

Instrument: GCMS 7

Analysis Date: 10/23/18 08:10

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.919 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 33.2  | 30462 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.1   | 39    | PASS  |
| 69   | 198  | 0.00 | 100 | 40.1  | 36795 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.5   | 197   | PASS  |
| 127  | 198  | 40   | 60  | 52.5  | 48205 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 91793 | PASS  |
| 199  | 198  | 5    | 9   | 6.7   | 6186  | PASS  |
| 275  | 198  | 10   | 30  | 21.5  | 19761 | PASS  |
| 365  | 198  | 1    | 100 | 2.1   | 1947  | PASS  |
| 441  | 443  | 0.01 | 100 | 78.7  | 8067  | PASS  |
| 442  | 198  | 40   | 100 | 57.9  | 53157 | PASS  |
| 443  | 442  | 17   | 23  | 19.3  | 10257 | PASS  |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 7M95311.D | CAL BNA@50PPM | 10/23/18 08:34 |
| 7M95312.D | WMB71479      | 10/23/18 11:31 |
| 7M95313.D | WMB71497      | 10/23/18 11:54 |



## Form 5

Tune Name: CAL DFTPP

Data File: 7M95314.D

Instrument: GCMS 7

Analysis Date: 10/24/18 08:10

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.914 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 36.0  | 23012 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 69   | 198  | 0.00 | 100 | 43.4  | 27736 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.6   | 171   | PASS  |
| 127  | 198  | 40   | 60  | 55.6  | 35512 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 63895 | PASS  |
| 199  | 198  | 5    | 9   | 7.2   | 4597  | PASS  |
| 275  | 198  | 10   | 30  | 19.9  | 12705 | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 1395  | PASS  |
| 441  | 443  | 0.01 | 100 | 72.3  | 4336  | PASS  |
| 442  | 198  | 40   | 100 | 48.7  | 31109 | PASS  |
| 443  | 442  | 17   | 23  | 19.3  | 6000  | PASS  |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 7M95315.D | CAL BNA@50PPM | 10/24/18 08:33 |
| 7M95316.D | AD07142-009   | 10/24/18 09:09 |
| 7M95317.D | AD07161-003   | 10/24/18 09:32 |
| 7M95318.D | AD07161-005   | 10/24/18 09:55 |
| 7M95319.D | AD07161-007   | 10/24/18 10:18 |
| 7M95320.D | AD07161-008   | 10/24/18 10:41 |
| 7M95321.D | AD07165-002   | 10/24/18 11:04 |
| 7M95322.D | AD07165-003   | 10/24/18 11:27 |
| 7M95323.D | AD07165-004   | 10/24/18 11:50 |
| 7M95324.D | AD07165-005   | 10/24/18 12:13 |
| 7M95325.D | AD07165-006   | 10/24/18 12:36 |
| 7M95326.D | AD07165-007   | 10/24/18 12:59 |
| 7M95327.D | AD07165-008   | 10/24/18 13:22 |
| 7M95328.D | SMB71506      | 10/24/18 13:45 |
| 7M95329.D | AD07165-009   | 10/24/18 14:08 |
| 7M95330.D | 07165-015     | 10/24/18 14:31 |
| 7M95331.D | AD07165-010   | 10/24/18 14:54 |
| 7M95332.D | AD07263-001   | 10/24/18 15:17 |
| 7M95333.D | AD07165-011   | 10/24/18 15:40 |
| 7M95334.D | AD07165-012   | 10/24/18 16:03 |
| 7M95335.D | AD07165-013   | 10/24/18 16:26 |
| 7M95336.D | AD07165-014   | 10/24/18 16:49 |
| 7M95337.D | AD07165-015   | 10/24/18 17:12 |
| 7M95338.D | AD07165-012   | 10/24/18 17:35 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 5

Data File: 5M105966.D  
Analysis Date: 10/25/18 08:50  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.893 min

| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 47.7         | 37196        | PASS          |
| 68          | 69          | 0.00      | 2         | 1.8          | 622          | PASS          |
| 69          | 198         | 0.00      | 100       | 45.3         | 35304        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.5          | 181          | PASS          |
| 127         | 198         | 40        | 60        | 54.8         | 42720        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.3          | 246          | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 77940        | PASS          |
| 199         | 198         | 5         | 9         | 7.2          | 5590         | PASS          |
| 275         | 198         | 10        | 30        | 18.8         | 14668        | PASS          |
| 365         | 198         | 1         | 100       | 2.3          | 1760         | PASS          |
| 441         | 443         | 0.01      | 100       | 80.4         | 5009         | PASS          |
| 442         | 198         | 40        | 100       | 40.8         | 31780        | PASS          |
| 443         | 442         | 17        | 23        | 19.6         | 6232         | PASS          |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 5M105967.D | CAL BNA@50PPM     | 10/25/18 09:19 |
| 5M105968.D | WMB71518(MS)      | 10/25/18 10:04 |
| 5M105969.D | WMB71518          | 10/25/18 10:28 |
| 5M105970.D | AD07188-009       | 10/25/18 10:59 |
| 5M105971.D | AD07185-008       | 10/25/18 11:22 |
| 5M105972.D | AD07252-002(T)    | 10/25/18 11:45 |
| 5M105973.D | EF-1 V-289820(10/ | 10/25/18 12:08 |
| 5M105974.D | AD07252-002(T)(M  | 10/25/18 12:32 |
| 5M105975.D | AD07252-002(T)(M  | 10/25/18 12:55 |
| 5M105976.D | AD07161-001(R)    | 10/25/18 13:19 |
| 5M105977.D | AD07142-003(R)    | 10/25/18 13:42 |
| 5M105978.D | AD07142-004(R)    | 10/25/18 14:05 |
| 5M105979.D | AD07294-001       | 10/25/18 14:29 |
| 5M105980.D | WMB71532          | 10/25/18 14:53 |
| 5M105981.D | AD07204-001       | 10/25/18 15:16 |
| 5M105982.D | AD07205-001       | 10/25/18 15:39 |
| 5M105983.D | AD07180-001       | 10/25/18 16:03 |
| 5M105984.D | AD07180-002       | 10/25/18 16:26 |
| 5M105985.D | AD07186-009       | 10/25/18 16:50 |
| 5M105986.D | AD07207-009       | 10/25/18 17:13 |
| 5M105987.D | AD07212-001       | 10/25/18 17:37 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 5

Data File: 5M105988.D  
Analysis Date: 10/26/18 08:09  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.893 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 45.1  | 37712 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.8   | 629   | PASS  |
| 69   | 198  | 0.00 | 100 | 42.9  | 35844 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.2   | 90    | PASS  |
| 127  | 198  | 40   | 60  | 51.0  | 42648 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.3   | 244   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 83616 | PASS  |
| 199  | 198  | 5    | 9   | 6.5   | 5415  | PASS  |
| 275  | 198  | 10   | 30  | 20.8  | 17381 | PASS  |
| 365  | 198  | 1    | 100 | 2.6   | 2148  | PASS  |
| 441  | 443  | 0.01 | 100 | 74.7  | 5723  | PASS  |
| 442  | 198  | 40   | 100 | 45.5  | 38024 | PASS  |
| 443  | 442  | 17   | 23  | 20.1  | 7662  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 5M105989.D | CAL BNA@50PPM    | 10/26/18 08:35 |
| 5M105990.D | WMB71532(MS)     | 10/26/18 09:22 |
| 5M105991.D | AD07212-003      | 10/26/18 09:45 |
| 5M105992.D | AD07212-005      | 10/26/18 10:08 |
| 5M105993.D | AD07212-004      | 10/26/18 10:32 |
| 5M105994.D | AD07142-005(R)   | 10/26/18 10:55 |
| 5M105995.D | AD07142-006(R)   | 10/26/18 11:18 |
| 5M105996.D | AD07142-007(R)   | 10/26/18 11:41 |
| 5M105997.D | AD07142-008(R)   | 10/26/18 12:05 |
| 5M105998.D | AD07142-009(R)   | 10/26/18 12:28 |
| 5M105999.D | AD07294-001(MS)  | 10/26/18 12:51 |
| 5M106000.D | AD07294-001(MSD) | 10/26/18 13:14 |
| 5M106001.D | WMB71537(MS)     | 10/26/18 13:37 |
| 5M106002.D | AD07212-006      | 10/26/18 14:00 |
| 5M106003.D | AD07204-001(R)   | 10/26/18 14:24 |
| 5M106004.D | AD07205-001(R)   | 10/26/18 14:47 |
| 5M106005.D | WMB71537         | 10/26/18 15:10 |
| 5M106006.D | EF- SPLP V-28996 | 10/26/18 15:36 |
| 5M106007.D | AD07031-001(T)   | 10/26/18 15:59 |
| 5M106008.D | AD07031-001(T)(M | 10/26/18 16:22 |
| 5M106009.D | AD07031-001(T)(M | 10/26/18 16:46 |
| 5M106010.D | AD07212-002      | 10/26/18 17:10 |
| 5M106011.D | AD07233-001      | 10/26/18 17:33 |
| 5M106012.D | AD07233-002      | 10/26/18 17:56 |
| 5M106013.D | AD07233-003      | 10/26/18 18:19 |
| 5M106014.D | AD07233-004      | 10/26/18 18:42 |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 7

Data File: 7M95341.D  
Analysis Date: 10/26/18 08:11  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.909 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw    | Pass/ |
|------|------|------|-----|-------|--------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund  | Fail  |
| 51   | 198  | 30   | 60  | 37.7  | 38844  | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      | PASS  |
| 69   | 198  | 0.00 | 100 | 44.0  | 45288  | PASS  |
| 70   | 69   | 0.00 | 2   | 0.6   | 280    | PASS  |
| 127  | 198  | 40   | 60  | 56.9  | 58568  | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 102920 | PASS  |
| 199  | 198  | 5    | 9   | 7.2   | 7400   | PASS  |
| 275  | 198  | 10   | 30  | 20.2  | 20797  | PASS  |
| 365  | 198  | 1    | 100 | 2.0   | 2053   | PASS  |
| 441  | 443  | 0.01 | 100 | 75.9  | 7141   | PASS  |
| 442  | 198  | 40   | 100 | 47.6  | 48960  | PASS  |
| 443  | 442  | 17   | 23  | 19.2  | 9405   | PASS  |

| Data File | Sample Number  | Analysis Date: |
|-----------|----------------|----------------|
| 7M95342.D | CAL BNA@50PPM  | 10/26/18 08:36 |
| 7M95343.D | SMB71534(MS)   | 10/26/18 09:26 |
| 7M95344.D | SMB71534       | 10/26/18 09:48 |
| 7M95345.D | WMB71532       | 10/26/18 10:11 |
| 7M95346.D | AD07165-002(R) | 10/26/18 10:35 |
| 7M95347.D | AD07165-003(R) | 10/26/18 10:58 |
| 7M95348.D | AD07165-007(R) | 10/26/18 11:20 |
| 7M95349.D | AD07165-008(R) | 10/26/18 11:43 |
| 7M95350.D | AD07165-009(R) | 10/26/18 12:06 |
| 7M95351.D | AD07165-010(R) | 10/26/18 12:30 |
| 7M95352.D | AD07165-015(R) | 10/26/18 12:53 |
| 7M95353.D | AD07161-003(R) | 10/26/18 13:16 |
| 7M95354.D | AD07161-005(R) | 10/26/18 13:38 |
| 7M95355.D | AD07161-007(R) | 10/26/18 14:01 |
| 7M95356.D | AD07161-008(R) | 10/26/18 14:25 |
| 7M95357.D | WMB71537       | 10/26/18 14:48 |
| 7M95358.D | AD07233-005    | 10/26/18 15:45 |
| 7M95359.D | AD07233-006    | 10/26/18 16:08 |
| 7M95360.D | AD07233-007    | 10/26/18 16:31 |

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 10M71237.D

Method: EPA 8270D

Analysis Date/Time: 10/08/18 11:51

Lab File ID: CAL BNA@50PPM

| 11                    |      | 12          |      | 13           |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|------|-------------|------|--------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
| Area                  | RT   | Area        | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| 45717                 | 2.73 | 91441       | 5.90 | 347375       | 6.90 | 216810        | 8.33 | 377671        | 9.80 | 382304        | 12.86 | 369171        | 14.49 |
| Eval File Area/RT:    |      | 22858-91434 |      | 45720-182882 |      | 173688-694750 |      | 108405-433620 |      | 188836-755342 |       | 191152-764608 |       |
| Eval File Area Limit: |      | 22858-91434 |      | 45720-182882 |      | 173688-694750 |      | 108405-433620 |      | 188836-755342 |       | 191152-764608 |       |
| Eval File RT Limit:   |      | 2.23-3.23   |      | 5.4-6.4      |      | 6.4-7.4       |      | 7.83-8.83     |      | 9.3-10.3      |       | 12.36-13.36   |       |
|                       |      |             |      |              |      |               |      |               |      |               |       | 13.99-14.99   |       |

## Data File Sample

|            |                |       |      |       |      |        |      |        |      |        |      |        |       |        |       |
|------------|----------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 10M71229.D | CAL BNA@10PPM  | 50609 | 2.74 | 99323 | 5.90 | 356054 | 6.90 | 223314 | 8.33 | 398598 | 9.80 | 410428 | 12.86 | 388983 | 14.49 |
| 10M71230.D | CAL BNA@2PPM   | 46994 | 2.73 | 93036 | 5.90 | 347884 | 6.90 | 222068 | 8.33 | 396093 | 9.80 | 408904 | 12.86 | 391574 | 14.49 |
| 10M71231.D | CAL BNA@196PPM | 46558 | 2.73 | 95237 | 5.90 | 358254 | 6.90 | 237684 | 8.34 | 438766 | 9.81 | 339080 | 12.87 | 408006 | 14.50 |
| 10M71232.D | CAL BNA@160PPM | 47686 | 2.73 | 94302 | 5.90 | 357131 | 6.90 | 230365 | 8.34 | 414288 | 9.81 | 352830 | 12.87 | 385890 | 14.50 |
| 10M71233.D | CAL BNA@120PPM | 48116 | 2.73 | 94428 | 5.90 | 362591 | 6.90 | 229352 | 8.34 | 409954 | 9.81 | 364480 | 12.87 | 379631 | 14.50 |
| 10M71234.D | CAL BNA@80PPM  | 46969 | 2.73 | 93648 | 5.90 | 355190 | 6.90 | 221269 | 8.34 | 391542 | 9.80 | 381281 | 12.86 | 378763 | 14.50 |
| 10M71235.D | CAL BNA@20PPM  | 46371 | 2.74 | 91991 | 5.90 | 335563 | 6.90 | 208898 | 8.33 | 378035 | 9.80 | 375028 | 12.86 | 370382 | 14.49 |
| 10M71236.D | CAL BNA@5PPM   | 45678 | 2.73 | 87007 | 5.90 | 329675 | 6.90 | 208232 | 8.33 | 382719 | 9.80 | 376330 | 12.86 | 356360 | 14.49 |
| 10M71237.D | CAL BNA@50PPM  | 45717 | 2.73 | 91441 | 5.90 | 347375 | 6.90 | 216810 | 8.33 | 377671 | 9.80 | 382304 | 12.86 | 369171 | 14.49 |
| 10M71238.D | ICV BNA@50PPM  | 43158 | 2.73 | 88132 | 5.90 | 328852 | 6.90 | 211540 | 8.33 | 363515 | 9.80 | 363019 | 12.86 | 345102 | 14.50 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30ug/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5ug/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 10M71237.D

Method: EPA 625.1

Analysis Date/Time: 10/08/18 11:51

Lab File ID: CAL BNA@50PPM

|                       | 11          |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|-------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area        | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 45717       | 2.73 | 91441        | 5.90 | 347375        | 6.90 | 216810        | 8.33 | 377671        | 9.80 | 382304        | 12.86 | 369171        | 14.49 |
| Eval File Area Limit: | 22858-91434 |      | 45720-182882 |      | 173688-694750 |      | 108405-433620 |      | 188836-755342 |      | 191152-764608 |       | 184586-738342 |       |
| Eval File RT Limit:   | 2.23-3.23   |      | 5.4-6.4      |      | 6.4-7.4       |      | 7.83-8.83     |      | 9.3-10.3      |      | 12.36-13.36   |       | 13.99-14.99   |       |

| Data File  | Sample         | Area  | RT   | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    |
|------------|----------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|
| 10M71229.D | CAL BNA@10PPM  | 50609 | 2.74 | 99323 | 5.90 | 356054 | 6.90 | 223314 | 8.33 | 398598 | 9.80 | 410428 | 12.86 |
| 10M71230.D | CAL BNA@2PPM   | 46994 | 2.73 | 93036 | 5.90 | 347884 | 6.90 | 222068 | 8.33 | 396093 | 9.80 | 408904 | 12.86 |
| 10M71231.D | CAL BNA@196PPM | 46558 | 2.73 | 95237 | 5.90 | 358254 | 6.90 | 237684 | 8.34 | 438766 | 9.81 | 339080 | 12.87 |
| 10M71232.D | CAL BNA@160PPM | 47686 | 2.73 | 94302 | 5.90 | 357131 | 6.90 | 230365 | 8.34 | 414288 | 9.81 | 352830 | 12.87 |
| 10M71233.D | CAL BNA@120PPM | 48116 | 2.73 | 94428 | 5.90 | 362591 | 6.90 | 229352 | 8.34 | 409954 | 9.81 | 364480 | 12.87 |
| 10M71234.D | CAL BNA@80PPM  | 46969 | 2.73 | 93648 | 5.90 | 355190 | 6.90 | 221269 | 8.34 | 391542 | 9.80 | 381281 | 12.86 |
| 10M71235.D | CAL BNA@20PPM  | 46371 | 2.74 | 91991 | 5.90 | 335583 | 6.90 | 208898 | 8.33 | 378035 | 9.80 | 375028 | 12.86 |
| 10M71236.D | CAL BNA@5PPM   | 45678 | 2.73 | 87007 | 5.90 | 329675 | 6.90 | 208232 | 8.33 | 362719 | 9.80 | 376330 | 12.86 |
| 10M71237.D | CAL BNA@50PPM  | 45717 | 2.73 | 91441 | 5.90 | 347375 | 6.90 | 216810 | 8.33 | 377671 | 9.80 | 382304 | 12.86 |
| 10M71238.D | ICV BNA@50PPM  | 43158 | 2.73 | 88132 | 5.90 | 328852 | 6.90 | 211540 | 8.33 | 363515 | 9.80 | 363019 | 12.86 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

Internal Standard Areas

Evaluation Std Data File: 5M105695.D

Method: EPA 625.1

Analysis Date/Time: 10/08/18 12:12

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 61090        | 2.50 | 113641       | 5.74 | 421692        | 6.75 | 254335        | 8.16 | 393814        | 9.62 | 394665        | 12.67 | 300723        | 14.28 |
| Eval File Area Limit: | 30545-122180 |      | 56820-227282 |      | 210846-843384 |      | 127168-508670 |      | 196907-787628 |      | 197332-789330 |       | 150362-601446 |       |
| Eval File Rt Limit:   | 2-3          |      | 5.24-6.24    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.12-10.12    |      | 12.17-13.17   |       | 13.78-14.78   |       |

| Data File Sample |                | 11    |      | 12     |      | 13     |      | 14     |      | 15     |      | 16     |       | 17     |       |
|------------------|----------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                  |                | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    | Area   | RT    |
| 5M105687.D       | CAL BNA@10PPM  | 59151 | 2.50 | 109412 | 5.74 | 409237 | 6.75 | 230363 | 8.16 | 375941 | 9.62 | 354389 | 12.67 | 280783 | 14.28 |
| 5M105689.D       | CAL BNA@196PPM | 57836 | 2.50 | 107987 | 5.74 | 391665 | 6.75 | 223278 | 8.17 | 364137 | 9.62 | 375589 | 12.68 | 282895 | 14.28 |
| 5M105690.D       | CAL BNA@160PPM | 58983 | 2.49 | 111440 | 5.74 | 407314 | 6.75 | 230779 | 8.17 | 375774 | 9.62 | 383131 | 12.67 | 309368 | 14.28 |
| 5M105691.D       | CAL BNA@120PPM | 59301 | 2.51 | 111021 | 5.74 | 404663 | 6.75 | 233227 | 8.17 | 385060 | 9.62 | 391944 | 12.67 | 327733 | 14.28 |
| 5M105692.D       | CAL BNA@80PPM  | 60107 | 2.50 | 111004 | 5.74 | 404566 | 6.75 | 226711 | 8.16 | 373703 | 9.62 | 385959 | 12.67 | 325878 | 14.28 |
| 5M105693.D       | CAL BNA@20PPM  | 60709 | 2.51 | 113420 | 5.74 | 410542 | 6.75 | 235917 | 8.16 | 387384 | 9.62 | 383384 | 12.67 | 328284 | 14.29 |
| 5M105694.D       | CAL BNA@.5PPM  | 57656 | 2.50 | 108772 | 5.74 | 398826 | 6.75 | 234276 | 8.16 | 407895 | 9.62 | 351887 | 12.66 | 294290 | 14.27 |
| 5M105695.D       | CAL BNA@50PPM  | 61090 | 2.50 | 113641 | 5.74 | 421692 | 6.75 | 254335 | 8.16 | 393814 | 9.62 | 394665 | 12.67 | 300723 | 14.28 |
| 5M105696.D       | CAL BNA@2PPM   | 61353 | 2.50 | 112107 | 5.74 | 414944 | 6.75 | 238255 | 8.16 | 425886 | 9.62 | 369346 | 12.67 | 306476 | 14.28 |
| 5M105697.D       | ICV BNA@50PPM  | 57034 | 2.50 | 107427 | 5.74 | 398315 | 6.75 | 227247 | 8.17 | 386222 | 9.62 | 403861 | 12.67 | 321995 | 14.28 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 574 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 9M88309.D

Method: EPA 8270D

Analysis Date/Time: 10/08/18 13:26

Lab File ID: CAL BNA@50PPM

| Eval File Area/RT:    | 11          |    | 12           |      | 13            |      | 14           |      | 15            |      | 16            |       | 17            |       |
|-----------------------|-------------|----|--------------|------|---------------|------|--------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area        | RT | Area         | RT   | Area          | RT   | Area         | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| 38833                 | 2.54        |    | 76879        | 5.79 | 292633        | 6.80 | 183035       | 8.23 | 321225        | 9.69 | 360599        | 12.75 | 322704        | 14.37 |
| Eval File Area Limit: | 19416-77666 |    | 38440-153758 |      | 146316-585266 |      | 91518-366070 |      | 160612-642450 |      | 180300-721198 |       | 161352-645408 |       |
| Eval File RT Limit:   | 2.04-3.04   |    | 5.29-6.29    |      | 6.3-7.3       |      | 7.73-8.73    |      | 9.19-10.19    |      | 12.25-13.25   |       | 13.87-14.87   |       |

## Data File Sample

|           |                |       |      |       |      |        |      |        |      |        |      |        |       |        |       |
|-----------|----------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 9M88301.D | CAL BNA@10PPM  | 46819 | 2.55 | 88053 | 5.79 | 338146 | 6.81 | 203823 | 8.25 | 355448 | 9.70 | 386511 | 12.75 | 356911 | 14.41 |
| 9M88302.D | CAL BNA@2PPM   | 43359 | 2.54 | 83713 | 5.79 | 320020 | 6.80 | 197447 | 8.23 | 342219 | 9.69 | 378938 | 12.74 | 349977 | 14.38 |
| 9M88303.D | CAL BNA@196PPM | 39900 | 2.54 | 79169 | 5.79 | 308563 | 6.81 | 192321 | 8.24 | 330720 | 9.70 | 382634 | 12.75 | 329075 | 14.38 |
| 9M88304.D | CAL BNA@160PPM | 38723 | 2.54 | 77301 | 5.79 | 295287 | 6.81 | 182343 | 8.23 | 316509 | 9.69 | 365032 | 12.76 | 313850 | 14.38 |
| 9M88305.D | CAL BNA@120PPM | 37155 | 2.55 | 74085 | 5.79 | 286486 | 6.81 | 175647 | 8.24 | 305309 | 9.69 | 341164 | 12.75 | 303710 | 14.37 |
| 9M88306.D | CAL BNA@80PPM  | 38165 | 2.55 | 76781 | 5.79 | 290205 | 6.81 | 177627 | 8.23 | 306432 | 9.69 | 343097 | 12.75 | 307663 | 14.37 |
| 9M88307.D | CAL BNA@20PPM  | 41655 | 2.55 | 79684 | 5.79 | 302917 | 6.81 | 182887 | 8.23 | 320085 | 9.69 | 361759 | 12.74 | 324385 | 14.37 |
| 9M88308.D | CAL BNA@.5PPM  | 38089 | 2.55 | 74902 | 5.79 | 287012 | 6.80 | 174925 | 8.23 | 307469 | 9.69 | 336446 | 12.74 | 301465 | 14.38 |
| 9M88309.D | CAL BNA@50PPM  | 38833 | 2.54 | 76879 | 5.79 | 292633 | 6.80 | 183035 | 8.23 | 321225 | 9.69 | 360599 | 12.75 | 322704 | 14.37 |
| 9M88310.D | ICV BNA@50PPM  | 37213 | 2.54 | 75228 | 5.79 | 286428 | 6.81 | 180451 | 8.24 | 309636 | 9.69 | 354787 | 12.75 | 315140 | 14.37 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(NT)     | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.



**FORM8****Internal Standard Areas**

Evaluation Std Data File: 7M95177.D

Method: EPA 625.1

Analysis Date/Time: 10/08/18 16:13

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 79420        | 2.50 | 134473       | 5.75 | 495463        | 6.76 | 286738        | 8.17 | 488913        | 9.61 | 483764        | 12.65 | 413657        | 14.27 |
| Eval File Area Limit: | 39710-158840 |      | 67236-268946 |      | 247732-990926 |      | 143369-573476 |      | 244456-977826 |      | 241882-967528 |       | 206828-827314 |       |
| Eval File RT Limit:   | 2-3          |      | 5.25-6.25    |      | 6.26-7.26     |      | 7.67-8.67     |      | 9.11-10.11    |      | 12.15-13.15   |       | 13.77-14.77   |       |

| Data File | Sample         | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    |
|-----------|----------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|
| 7M95169.D | CAL BNA@10PPM  | 80619 | 2.50 | 137139 | 5.75 | 504127 | 6.77 | 290829 | 8.20 | 495869 | 9.64 | 480420 | 12.65 |
| 7M95170.D | CAL BNA@196PPM | 76812 | 2.50 | 126580 | 5.75 | 465835 | 6.77 | 270926 | 8.19 | 466920 | 9.63 | 452377 | 12.66 |
| 7M95171.D | CAL BNA@160PPM | 76070 | 2.51 | 123955 | 5.75 | 459360 | 6.78 | 266448 | 8.21 | 461445 | 9.64 | 448112 | 12.66 |
| 7M95172.D | CAL BNA@120PPM | 82152 | 2.51 | 134996 | 5.75 | 501928 | 6.76 | 287749 | 8.18 | 498911 | 9.62 | 487388 | 12.65 |
| 7M95173.D | CAL BNA@80PPM  | 80331 | 2.51 | 133398 | 5.75 | 496038 | 6.77 | 282685 | 8.18 | 487063 | 9.63 | 479929 | 12.65 |
| 7M95174.D | CAL BNA@20PPM  | 80893 | 2.51 | 137180 | 5.75 | 506716 | 6.76 | 288424 | 8.18 | 491343 | 9.62 | 489782 | 12.65 |
| 7M95175.D | CAL BNA@2PPM   | 82999 | 2.50 | 140993 | 5.75 | 521955 | 6.76 | 299110 | 8.18 | 516763 | 9.62 | 500060 | 12.64 |
| 7M95176.D | CAL BNA@0.5PPM | 80950 | 2.51 | 138488 | 5.75 | 512096 | 6.76 | 294601 | 8.17 | 507907 | 9.61 | 480570 | 12.64 |
| 7M95177.D | CAL BNA@50PPM  | 79420 | 2.50 | 134473 | 5.75 | 495463 | 6.76 | 286738 | 8.17 | 488913 | 9.61 | 483764 | 12.65 |
| 7M95178.D | ICV BNA@50PPM  | 78269 | 2.51 | 131445 | 5.75 | 488502 | 6.76 | 276337 | 8.17 | 478457 | 9.62 | 473904 | 12.65 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8 (INT)   | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

**Internal Standard Areas**

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

**Flags:**

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

**Retention Times:**

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

Internal Standard Areas

Evaluation Std Data File: 10M71437.D

Method: EPA 8270D

Analysis Date/Time: 10/19/18 09:35

Lab File ID: CAL BNA@50PPM

| Eval File Area/RT     | 11          |    | 12           |      | 13            |      | 14           |      | 15            |      | 16            |       | 17            |       |
|-----------------------|-------------|----|--------------|------|---------------|------|--------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area        | RT | Area         | RT   | Area          | RT   | Area         | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| 39372                 | 2.73        |    | 81447        | 5.89 | 309527        | 6.90 | 196345       | 8.33 | 338144        | 9.80 | 353562        | 12.86 | 329334        | 14.49 |
| Eval File Area Limit: | 19686-78744 |    | 40724-162894 |      | 154764-619054 |      | 98172-392690 |      | 169072-676288 |      | 176781-707124 |       | 164667-658668 |       |
| Eval File RT Limit:   | 2.23-3.23   |    | 5.39-6.39    |      | 6.4-7.4       |      | 7.83-8.83    |      | 9.3-10.3      |      | 12.36-13.36   |       | 13.99-14.99   |       |

## Data File Sample

|            |                     |       |      |       |      |        |      |        |      |        |      |        |       |        |       |
|------------|---------------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 10M71438.D | WMB71471            | 42828 | 2.73 | 83072 | 5.89 | 294904 | 6.90 | 183226 | 8.33 | 323984 | 9.80 | 326554 | 12.86 | 302661 | 14.49 |
| 10M71439.D | WMB71471(MS)        | 43061 | 2.73 | 83409 | 5.89 | 302478 | 6.90 | 194312 | 8.33 | 335279 | 9.80 | 310192 | 12.86 | 313310 | 14.49 |
| 10M71440.D | SMB71470            | 41903 | 2.71 | 78961 | 5.89 | 299810 | 6.89 | 177244 | 8.33 | 329451 | 9.80 | 327720 | 12.86 | 304365 | 14.49 |
| 10M71441.D | AD07093-001(T)      | 40966 | 2.74 | 77883 | 5.89 | 279912 | 6.90 | 174163 | 8.33 | 298144 | 9.80 | 306620 | 12.86 | 288590 | 14.49 |
| 10M71442.D | AD07093-001(T)(MS)  | 42154 | 2.73 | 80272 | 5.89 | 293840 | 6.90 | 181195 | 8.33 | 325017 | 9.80 | 309448 | 12.86 | 306589 | 14.49 |
| 10M71443.D | AD07093-001(T)(MSD) | 40101 | 2.75 | 80918 | 5.90 | 293194 | 6.90 | 179963 | 8.33 | 314090 | 9.80 | 298000 | 12.86 | 288391 | 14.50 |
| 10M71444.D | SMB71470            | 39815 | 2.71 | 83418 | 5.89 | 299627 | 6.89 | 179552 | 8.33 | 314696 | 9.80 | 329892 | 12.86 | 301663 | 14.49 |
| 10M71445.D | AD07121-001         | 35375 | 2.74 | 69399 | 5.89 | 248587 | 6.90 | 159483 | 8.33 | 277667 | 9.80 | 281581 | 12.86 | 254974 | 14.49 |
| 10M71446.D | WMB71471            | 40202 | 2.73 | 78955 | 5.89 | 276319 | 6.90 | 169537 | 8.33 | 294181 | 9.80 | 298529 | 12.86 | 277591 | 14.49 |
| 10M71447.D | AD07121-002         | 33291 | 2.73 | 65380 | 5.89 | 246229 | 6.90 | 148952 | 8.33 | 261993 | 9.80 | 253308 | 12.86 | 240072 | 14.49 |
| 10M71448.D | AD07121-003         | 40137 | 2.73 | 78207 | 5.89 | 277142 | 6.90 | 168639 | 8.33 | 298133 | 9.80 | 291426 | 12.86 | 282800 | 14.49 |
| 10M71449.D | AD07121-004         | 27805 | 2.73 | 55403 | 5.89 | 199555 | 6.89 | 117427 | 8.33 | 217515 | 9.80 | 216221 | 12.86 | 199949 | 14.49 |
| 10M71450.D | WMB71479            | 35856 | 2.73 | 67562 | 5.89 | 266918 | 6.89 | 154612 | 8.33 | 279806 | 9.80 | 276107 | 12.86 | 248307 | 14.49 |
| 10M71451.D | AD07121-006         | 31840 | 2.73 | 63044 | 5.89 | 235656 | 6.89 | 137629 | 8.33 | 254181 | 9.80 | 240204 | 12.86 | 227235 | 14.49 |
| 10M71452.D | AD07121-007         | 35213 | 2.73 | 69711 | 5.89 | 254634 | 6.90 | 152547 | 8.33 | 268023 | 9.80 | 283934 | 12.86 | 268166 | 14.49 |
| 10M71453.D | AD07121-008         | 28942 | 2.74 | 59100 | 5.89 | 215282 | 6.90 | 133803 | 8.33 | 227478 | 9.80 | 230211 | 12.86 | 209045 | 14.49 |
| 10M71454.D | AD07037-001(10X)(R) | 44452 | 2.74 | 81863 | 5.89 | 300997 | 6.90 | 189981 | 8.33 | 336437 | 9.80 | 322534 | 12.86 | 294858 | 14.49 |
| 10M71455.D | AD07037-002(20X)(R) | 38255 | 2.73 | 73342 | 5.89 | 268662 | 6.90 | 164649 | 8.33 | 292235 | 9.80 | 283025 | 12.86 | 263831 | 14.49 |
| 10M71456.D | SMB71480            | 39260 | 2.69 | 71553 | 5.89 | 265817 | 6.89 | 157237 | 8.33 | 290103 | 9.80 | 286817 | 12.86 | 259125 | 14.49 |
| 10M71457.D | SMB71481            | 38872 | 2.70 | 73295 | 5.89 | 266335 | 6.89 | 162478 | 8.33 | 294173 | 9.80 | 291991 | 12.86 | 277020 | 14.49 |
| 10M71458.D | SMB71480(MS)        | 36044 | 2.71 | 75473 | 5.89 | 276810 | 6.89 | 175960 | 8.33 | 311419 | 9.80 | 309669 | 12.86 | 286195 | 14.49 |
| 10M71459.D | AD07136-003         | 41251 | 2.70 | 79431 | 5.89 | 285711 | 6.89 | 178478 | 8.33 | 304096 | 9.80 | 319863 | 12.86 | 291423 | 14.49 |
| 10M71460.D | AD07136-003(MS)     | 42937 | 2.72 | 87372 | 5.89 | 311164 | 6.90 | 189222 | 8.33 | 347697 | 9.80 | 342555 | 12.86 | 313686 | 14.49 |
| 10M71461.D | AD07136-003(MSD)    | 39690 | 2.70 | 83743 | 5.89 | 310137 | 6.90 | 196273 | 8.33 | 345741 | 9.80 | 338499 | 12.86 | 312488 | 14.49 |
| 10M71462.D | AD07185-007         | 33444 | 2.72 | 67887 | 5.89 | 243548 | 6.89 | 147190 | 8.33 | 269399 | 9.80 | 271260 | 12.86 | 252215 | 14.49 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30ug/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5ug/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 5M105871.D

Method: EPA 625.1

Analysis Date/Time: 10/19/18 09:44

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 58769        | 2.52 | 104259       | 5.74 | 386643        | 6.75 | 221233        | 8.16 | 372057        | 9.62 | 373793        | 12.67 | 308966        | 14.28 |
| Eval File Area Limit: | 29384-117538 |      | 52130-208518 |      | 193322-773286 |      | 110616-442466 |      | 186028-744114 |      | 186896-747586 |       | 154483-617932 |       |
| Eval File RT Limit:   | 2.02-3.02    |      | 5.24-6.24    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.12-10.12    |      | 12.17-13.17   |       | 13.78-14.78   |       |

| Data File Sample |                    | 11    |      | 12     |      | 13     |      | 14     |      | 15     |      | 16     |       | 17     |       |
|------------------|--------------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                  |                    | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    | Area   | RT    |
| 5M105872.D       | WMB71471           | 62801 | 2.51 | 108305 | 5.74 | 387743 | 6.75 | 231707 | 8.16 | 381732 | 9.61 | 351287 | 12.66 | 277716 | 14.27 |
| 5M105877.D       | AD07118-001        | 53505 | 2.51 | 99313  | 5.74 | 356006 | 6.75 | 202378 | 8.16 | 341916 | 9.62 | 315621 | 12.66 | 244091 | 14.27 |
| 5M105878.D       | AD07118-003        | 44438 | 2.52 | 78955  | 5.74 | 297321 | 6.75 | 176851 | 8.16 | 291827 | 9.61 | 260032 | 12.66 | 202908 | 14.27 |
| 5M105879.D       | AD07118-005        | 52067 | 2.52 | 95950  | 5.74 | 353356 | 6.75 | 201098 | 8.16 | 344266 | 9.62 | 305103 | 12.66 | 243639 | 14.28 |
| 5M105880.D       | AD07118-007        | 46742 | 2.52 | 85075  | 5.74 | 308610 | 6.75 | 176127 | 8.16 | 297969 | 9.62 | 264163 | 12.66 | 213647 | 14.27 |
| 5M105881.D       | WMB71479           | 53375 | 2.52 | 95199  | 5.74 | 348428 | 6.75 | 197359 | 8.16 | 329994 | 9.62 | 296073 | 12.66 | 236328 | 14.28 |
| 5M105885.D       | AD07113-001(R)     | 51375 | 2.53 | 40744  | 5.75 | 348534 | 6.75 | 200555 | 8.16 | 338066 | 9.61 | 311823 | 12.66 | 257364 | 14.27 |
| 5M105886.D       | AD07113-001(SX)(R) | 57874 | 2.52 | 104018 | 5.74 | 384023 | 6.75 | 219859 | 8.16 | 325156 | 9.61 | 333709 | 12.66 | 276994 | 14.27 |
| 5M105894.D       | AD07113-001(R)     | 54352 | 2.52 | 41095  | 5.75 | 362371 | 6.75 | 204003 | 8.16 | 344063 | 9.61 | 316251 | 12.66 | 259551 | 14.27 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

8101509 0177

# FORM8

## Internal Standard Areas

Evaluation Std Data File: 7M95305.D

Method: EPA 625.1

Analysis Date/Time: 10/19/18 09:41

Lab File ID: CAL BNA@50PPM

|                       | I1           |      | I2           |      | I3            |      | I4            |      | I5            |      | I6            |       | I7            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 80477        | 2.50 | 130844       | 5.74 | 485842        | 6.76 | 276201        | 8.17 | 477980        | 9.61 | 456743        | 12.64 | 394976        | 14.24 |
| Eval File Area Limit: | 40238-160954 |      | 65422-261688 |      | 242921-971684 |      | 138100-552402 |      | 238990-955960 |      | 228372-913486 |       | 197488-789952 |       |
| Eval File Rt Limit:   | 2-3          |      | 5-24-6-24    |      | 6-26-7-26     |      | 7-67-8-67     |      | 9-11-10-11    |      | 12-14-13-14   |       | 13-74-14-74   |       |

| Data File | Sample#      |       |      |        |      |        |      |        |      |        |      |        |       |        |       |
|-----------|--------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 7M95306.D | WMB71479(MS) | 85204 | 2.50 | 128861 | 5.74 | 456023 | 6.77 | 252821 | 8.20 | 436408 | 9.64 | 418283 | 12.65 | 364321 | 14.27 |
| 7M95307.D | WMB71479     | 76749 | 2.51 | 125294 | 5.74 | 456198 | 6.75 | 254412 | 8.16 | 438656 | 9.60 | 395691 | 12.63 | 329683 | 14.24 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| I1 = | 1,4-Dioxane-d8(INT)    | I4 = | Acenaphthene-d10 | I7 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| I2 = | 1,4-Dichlorobenzene-d4 | I5 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| I3 = | Naphthalene-d8         | I6 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 9M88660.D

Method: EPA 8270D

Analysis Date/Time: 10/19/18 16:02

Lab File ID: CAL BNA@50PPM

| Eval File Area/RT     | 11          |      | 12          |      | 13           |      | 14           |      | 15           |      | 16            |       | 17           |       |
|-----------------------|-------------|------|-------------|------|--------------|------|--------------|------|--------------|------|---------------|-------|--------------|-------|
|                       | Area        | RT   | Area        | RT   | Area         | RT   | Area         | RT   | Area         | RT   | Area          | RT    | Area         | RT    |
| Eval File Area Limit: | 21198       | 2.56 | 44404       | 5.79 | 172643       | 6.81 | 106798       | 8.24 | 184072       | 9.70 | 211692        | 12.76 | 191500       | 14.38 |
| Eval File RT Limit:   | 10599-42396 |      | 22202-88808 |      | 86322-345286 |      | 53399-213596 |      | 92036-368144 |      | 105846-423384 |       | 95750-383000 |       |
|                       | 2.06-3.06   |      | 5.29-6.29   |      | 6.31-7.31    |      | 7.74-8.74    |      | 9.2-10.2     |      | 12.26-13.26   |       | 13.88-14.88  |       |

| Data File | Sample           | Area  | RT   | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    | Area   | RT    |
|-----------|------------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 9M88661.D | AD07079-016      | 22750 | 2.54 | 44298 | 5.79 | 165698 | 6.80 | 100771 | 8.23 | 170168 | 9.69 | 185203 | 12.75 | 164294 | 14.38 |
| 9M88662.D | AD07079-017      | 24428 | 2.53 | 50193 | 5.79 | 187234 | 6.80 | 113470 | 8.23 | 194321 | 9.69 | 207411 | 12.75 | 180672 | 14.38 |
| 9M88663.D | AD07116-005      | 19724 | 2.54 | 40070 | 5.79 | 145491 | 6.80 | 90090  | 8.23 | 152522 | 9.69 | 164909 | 12.75 | 142596 | 14.38 |
| 9M88664.D | AD07116-003      | 26454 | 2.54 | 56595 | 5.79 | 211298 | 6.80 | 126955 | 8.23 | 211266 | 9.69 | 217868 | 12.75 | 186617 | 14.38 |
| 9M88665.D | SMB71480         | 25465 | 2.53 | 49794 | 5.79 | 190279 | 6.80 | 112904 | 8.23 | 191080 | 9.69 | 202679 | 12.75 | 175398 | 14.38 |
| 9M88666.D | SMB71481         | 25027 | 2.54 | 49076 | 5.79 | 183260 | 6.80 | 111955 | 8.23 | 190962 | 9.69 | 199137 | 12.75 | 175837 | 14.38 |
| 9M88667.D | AD07116-001      | 24248 | 2.54 | 48911 | 5.79 | 181809 | 6.80 | 110239 | 8.23 | 182285 | 9.69 | 188798 | 12.75 | 164342 | 14.38 |
| 9M88668.D | AD07116-002      | 23890 | 2.55 | 47628 | 5.79 | 177922 | 6.80 | 105800 | 8.23 | 177915 | 9.69 | 185588 | 12.75 | 165049 | 14.38 |
| 9M88669.D | AD07116-004      | 24636 | 2.54 | 48641 | 5.79 | 182430 | 6.80 | 108139 | 8.23 | 182869 | 9.70 | 187485 | 12.75 | 165711 | 14.38 |
| 9M88670.D | AD07079-013(3X)  | 26658 | 2.56 | 52987 | 5.79 | 197266 | 6.80 | 120043 | 8.23 | 198358 | 9.70 | 202707 | 12.75 | 180297 | 14.38 |
| 9M88671.D | AD07109-002      | 19288 | 2.54 | 40560 | 5.79 | 150607 | 6.80 | 89774  | 8.23 | 147586 | 9.70 | 153242 | 12.75 | 135982 | 14.38 |
| 9M88672.D | AD07079-004      | 23832 | 2.54 | 46595 | 5.79 | 172932 | 6.80 | 104567 | 8.23 | 173578 | 9.70 | 199814 | 12.76 | 181998 | 14.39 |
| 9M88673.D | AD07079-002(3X)  | 27813 | 2.56 | 55844 | 5.79 | 210377 | 6.80 | 124393 | 8.23 | 205532 | 9.70 | 242802 | 12.76 | 209692 | 14.39 |
| 9M88674.D | AD07079-003(3X)  | 26644 | 2.55 | 50770 | 5.79 | 194414 | 6.80 | 115234 | 8.23 | 194558 | 9.70 | 227176 | 12.76 | 190448 | 14.39 |
| 9M88675.D | 07131-001        | 23921 | 2.55 | 58815 | 5.80 | 282918 | 6.82 | 178617 | 8.28 | 352219 | 9.75 | 248610 | 12.76 | 212370 | 14.38 |
| 9M88676.D | AD07136-001      | 31569 | 2.54 | 61274 | 5.79 | 227726 | 6.80 | 135987 | 8.23 | 224312 | 9.70 | 236189 | 12.76 | 217817 | 14.39 |
| 9M88677.D | AD07136-002      | 25463 | 2.54 | 52241 | 5.79 | 194381 | 6.81 | 114090 | 8.24 | 193105 | 9.70 | 204227 | 12.76 | 182546 | 14.38 |
| 9M88678.D | AD07136-004      | 27063 | 2.54 | 53914 | 5.79 | 195656 | 6.81 | 120055 | 8.23 | 199903 | 9.70 | 200394 | 12.76 | 175630 | 14.38 |
| 9M88679.D | AD07159-001      | 25075 | 2.54 | 50224 | 5.79 | 184700 | 6.80 | 109065 | 8.23 | 181130 | 9.70 | 196292 | 12.76 | 192592 | 14.39 |
| 9M88680.D | AD07161-002      | 24590 | 2.54 | 47005 | 5.79 | 172175 | 6.80 | 102214 | 8.23 | 171650 | 9.70 | 175677 | 12.76 | 151830 | 14.38 |
| 9M88681.D | AD07161-004      | 25633 | 2.54 | 54874 | 5.79 | 203338 | 6.81 | 120810 | 8.23 | 201432 | 9.70 | 209387 | 12.76 | 178080 | 14.38 |
| 9M88682.D | AD07161-006      | 28251 | 2.54 | 57294 | 5.79 | 212741 | 6.81 | 127475 | 8.24 | 211395 | 9.70 | 214859 | 12.76 | 180376 | 14.38 |
| 9M88683.D | AD07161-009      | 21960 | 2.54 | 45242 | 5.79 | 164715 | 6.81 | 99314  | 8.23 | 162455 | 9.70 | 169183 | 12.76 | 139012 | 14.38 |
| 9M88684.D | AD07177-001      | 24389 | 2.54 | 49763 | 5.79 | 183054 | 6.81 | 108444 | 8.24 | 179374 | 9.70 | 182706 | 12.76 | 148953 | 14.38 |
| 9M88685.D | AD07185-002      | 26697 | 2.55 | 52602 | 5.79 | 198136 | 6.81 | 117125 | 8.24 | 194950 | 9.70 | 196466 | 12.76 | 163129 | 14.38 |
| 9M88686.D | AD07185-004      | 24835 | 2.54 | 51934 | 5.79 | 190093 | 6.80 | 113221 | 8.24 | 189898 | 9.70 | 194271 | 12.76 | 161889 | 14.38 |
| 9M88687.D | AD07185-006      | 23356 | 2.54 | 47393 | 5.79 | 177748 | 6.81 | 105704 | 8.23 | 174618 | 9.70 | 175690 | 12.76 | 144404 | 14.38 |
| 9M88688.D | AD07185-001(3X)  | 27777 | 2.56 | 53882 | 5.79 | 201309 | 6.81 | 122092 | 8.24 | 199532 | 9.70 | 200077 | 12.76 | 164160 | 14.38 |
| 9M88689.D | AD07185-003(3X)  | 25651 | 2.56 | 55932 | 5.79 | 203781 | 6.81 | 121631 | 8.24 | 202027 | 9.70 | 203865 | 12.76 | 171347 | 14.38 |
| 9M88690.D | AD07185-005(3X)  | 28568 | 2.56 | 58371 | 5.79 | 218085 | 6.81 | 129827 | 8.24 | 214680 | 9.70 | 217572 | 12.76 | 177212 | 14.38 |
| 9M88691.D | AD07185-011(3X)  | 26338 | 2.56 | 52532 | 5.79 | 194819 | 6.81 | 114859 | 8.24 | 192741 | 9.70 | 192487 | 12.76 | 156162 | 14.38 |
| 9M88692.D | AD07152-001(10X) | 27203 | 2.57 | 53131 | 5.79 | 196436 | 6.81 | 115576 | 8.24 | 192532 | 9.70 | 198453 | 12.76 | 165121 | 14.38 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(NT)     | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30ug/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5ug/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

**Retention Times:** Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 5M105896.D

Method: EPA 625.1

Analysis Date/Time: 10/22/18 07:52

Lab File ID: CAL\_BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 65003        | 2.51 | 110898       | 5.74 | 411619        | 6.75 | 238931        | 8.16 | 397061        | 9.62 | 401600        | 12.67 | 327289        | 14.28 |
| Eval File Area Limit: | 32502-130006 |      | 55449-221796 |      | 205810-823238 |      | 119466-477862 |      | 198530-794122 |      | 200800-803200 |       | 163644-654578 |       |
| Eval File RI Limit:   | 2.01-3.01    |      | 5.24-6.24    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.12-10.12    |      | 12.17-13.17   |       | 13.78-14.78   |       |

| Data File  | Sample             |       |      |        |      |        |      |        |      |        |      |        |       |        |       |  |  |  |  |
|------------|--------------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--|--|--|--|
| 5M105897.D | AD06939-001(T)     | 55340 | 2.53 | 94159  | 5.74 | 342580 | 6.75 | 201361 | 8.16 | 349049 | 9.61 | 324536 | 12.66 | 266462 | 14.27 |  |  |  |  |
| 5M105898.D | AD06939-001(T)(MS) | 47018 | 2.53 | 85859  | 5.74 | 314281 | 6.75 | 177913 | 8.16 | 304363 | 9.62 | 300611 | 12.67 | 238989 | 14.27 |  |  |  |  |
| 5M105899.D | AD06939-001(T)(MSD | 54029 | 2.53 | 95427  | 5.74 | 350426 | 6.75 | 201098 | 8.16 | 335525 | 9.62 | 340534 | 12.67 | 281051 | 14.27 |  |  |  |  |
| 5M105905.D | AD07137-001        | 50447 | 2.53 | 96060  | 5.74 | 360245 | 6.75 | 220703 | 8.16 | 375204 | 9.61 | 363492 | 12.66 | 309611 | 14.27 |  |  |  |  |
| 5M105906.D | AD07137-003        | 48497 | 2.53 | 87458  | 5.74 | 328130 | 6.75 | 194871 | 8.16 | 327141 | 9.61 | 313048 | 12.66 | 261186 | 14.27 |  |  |  |  |
| 5M105907.D | AD07137-005        | 48673 | 2.53 | 88289  | 5.74 | 333175 | 6.75 | 191004 | 8.16 | 317989 | 9.61 | 299350 | 12.66 | 246370 | 14.27 |  |  |  |  |
| 5M105911.D | WMB71496(MS)       | 53644 | 2.53 | 95073  | 5.74 | 357106 | 6.75 | 205040 | 8.16 | 339251 | 9.62 | 340979 | 12.67 | 275093 | 14.28 |  |  |  |  |
| 5M105912.D | AD07157-001(T)     | 54704 | 2.54 | 99050  | 5.74 | 362356 | 6.75 | 208147 | 8.16 | 348174 | 9.61 | 324001 | 12.66 | 278345 | 14.27 |  |  |  |  |
| 5M105913.D | WMB71496           | 49980 | 2.53 | 88683  | 5.74 | 329308 | 6.75 | 189512 | 8.16 | 315681 | 9.61 | 284316 | 12.66 | 247939 | 14.27 |  |  |  |  |
| 5M105915.D | AD07157-001(T)(MS) | 58757 | 2.54 | 103720 | 5.74 | 377108 | 6.75 | 212341 | 8.16 | 359633 | 9.62 | 356032 | 12.67 | 306499 | 14.28 |  |  |  |  |
| 5M105916.D | AD07157-001(T)(MSD | 54003 | 2.54 | 97716  | 5.74 | 358862 | 6.75 | 200373 | 8.16 | 346462 | 9.62 | 349478 | 12.67 | 287435 | 14.28 |  |  |  |  |

|      |                                  |      |                  |      |              |                                                                       |
|------|----------------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(I <sup>NT</sup> ) | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4           | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8                   | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

0101509 01800

FORM8

Internal Standard Areas

Evaluation Std Data File: 10M71464.D

Method: EPA 625.1

Analysis Date/Time: 10/22/18 07:45

Lab File ID: CAL BNA@50PPM

|                      | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                      | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT    | 56350        | 2.73 | 107070       | 5.89 | 369309        | 6.90 | 241193        | 8.33 | 417865        | 9.80 | 373431        | 12.86 | 395181        | 14.49 |
| Eval File Area Limit | 28175-112700 |      | 53535-214140 |      | 184654-738618 |      | 120596-482386 |      | 208932-835730 |      | 186716-746862 |       | 197590-790362 |       |
| Eval File Rt Limit   | 2.23-3.23    |      | 5.39-6.39    |      | 6.4-7.4       |      | 7.83-8.83     |      | 9.3-10.3      |      | 12.36-13.36   |       | 13.99-14.99   |       |

| Data File  | Sample         | Area  | RT   | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    | Area   | RT    |
|------------|----------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 10M71484.D | WMB71496       | 33945 | 2.73 | 65360 | 5.89 | 250678 | 6.89 | 146961 | 8.33 | 263382 | 9.80 | 269034 | 12.86 | 239128 | 14.49 |
| 10M71486.D | AD07118-003(R) | 38367 | 2.73 | 73622 | 5.89 | 267910 | 6.89 | 162276 | 8.33 | 295319 | 9.80 | 295092 | 12.86 | 266400 | 14.49 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(NT)     | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration =5mg/L                            |

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

0101509 0181

FORM8

Internal Standard Areas

Evaluation Std Data File: 5M105924.D

Method: EPA 625.1

Analysis Date/Time: 10/23/18 08:44

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 59259        | 2.52 | 106413       | 5.74 | 398382        | 6.75 | 225614        | 8.16 | 384355        | 9.62 | 374643        | 12.67 | 311166        | 14.28 |
| Eval File Area Limit: | 29630-118518 |      | 53206-212826 |      | 199191-796764 |      | 112807-451228 |      | 192178-768710 |      | 187322-749286 |       | 155583-622332 |       |
| Eval File RT Limit:   | 2.02-3.02    |      | 5.24-6.24    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.12-10.12    |      | 12.17-13.17   |       | 13.78-14.78   |       |

| Data File  | Sample           |       |      |       |      |        |      |        |      |        |      |        |       |        |       |
|------------|------------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 5M105925.D | WMB71497(MS)     | 55324 | 2.50 | 96626 | 5.74 | 343299 | 6.75 | 201648 | 8.16 | 334137 | 9.62 | 338141 | 12.67 | 265110 | 14.28 |
| 5M105926.D | WMB71497         | 49014 | 2.50 | 88307 | 5.74 | 319914 | 6.75 | 196612 | 8.16 | 331403 | 9.61 | 305297 | 12.66 | 246575 | 14.27 |
| 5M105927.D | AD07161-001      | 52520 | 2.50 | 96344 | 5.74 | 351855 | 6.75 | 205521 | 8.16 | 354822 | 9.61 | 317341 | 12.66 | 262415 | 14.27 |
| 5M105928.D | AD07161-001(MS)  | 52526 | 2.50 | 94175 | 5.74 | 349064 | 6.75 | 201461 | 8.16 | 340989 | 9.62 | 335379 | 12.67 | 269230 | 14.28 |
| 5M105929.D | AD07161-001(MSD) | 54034 | 2.50 | 99212 | 5.74 | 363582 | 6.75 | 215321 | 8.16 | 353822 | 9.62 | 352868 | 12.67 | 287142 | 14.28 |
| 5M105934.D | WMB71497         | 38942 | 2.50 | 72017 | 5.74 | 262490 | 6.75 | 156506 | 8.16 | 271473 | 9.61 | 235494 | 12.66 | 185181 | 14.27 |
| 5M105937.D | AD07249-006(TT)  | 51889 | 2.50 | 93824 | 5.74 | 356455 | 6.75 | 213593 | 8.16 | 356832 | 9.61 | 328023 | 12.66 | 267417 | 14.27 |

11 = 1,4-Dioxane-d8(INT)  
12 = 1,4-Dichlorobenzene-d4  
13 = Naphthalene-d8

14 = Acenaphthene-d10  
15 = Phenanthrene-d10  
16 = Chrysene-d12

17 = Perylene-d12

625/8270 Internal Standard concentration = 40 mg/L (in final extract)  
624/8260 Internal Standard concentration = 30mg/L  
524 Internal Standard concentration =5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.



**FORM8****Internal Standard Areas**

Evaluation Std Data File: 7M95311.D

Method: EPA 625.1

Analysis Date/Time: 10/23/18 08:34

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15             |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|----------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area           | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 79519        | 2.51 | 136612       | 5.75 | 496237        | 6.75 | 284638        | 8.17 | 500542         | 9.60 | 489701        | 12.64 | 426187        | 14.24 |
| Eval File Area Limit: | 39760-159038 |      | 68306-273224 |      | 248118-992474 |      | 142319-569276 |      | 250271-1001084 |      | 244850-979402 |       | 213094-852374 |       |
| Eval File RT Limit:   | 2.01-3.01    |      | 5.25-6.25    |      | 6.25-7.25     |      | 7.67-8.67     |      | 9.1-10.1       |      | 12.14-13.14   |       | 13.74-14.74   |       |

| Data File | Sample   | Area  | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT   | Area   | RT    |
|-----------|----------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|
| 7M95312.D | WMB71479 | 80358 | 2.50 | 131913 | 5.74 | 485335 | 6.76 | 273527 | 8.19 | 463101 | 9.63 | 416401 | 12.64 |
| 7M95313.D | WMB71497 | 65533 | 2.51 | 112394 | 5.74 | 417754 | 6.76 | 239452 | 8.17 | 414885 | 9.61 | 368977 | 12.64 |
|           |          |       |      |        |      |        |      |        |      |        |      | 303024 | 14.25 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

**Internal Standard Areas**

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

**Flags:**

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

**Retention Times:**

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

**FORM8**

## Internal Standard Areas

Evaluation Std Data File: 7M95315.D

Method: EPA 625.1

Analysis Date/Time: 10/24/18 08:33

Lab File ID: CAL\_BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 78417        | 2.52 | 133949       | 5.75 | 493459        | 6.75 | 285348        | 8.16 | 495180        | 9.60 | 486476        | 12.64 | 421621        | 14.24 |
| Eval File Area Limit: | 39208-156834 |      | 66974-267898 |      | 246730-986918 |      | 142674-570696 |      | 247590-990360 |      | 243238-972952 |       | 210810-843242 |       |
| Eval File RT Limit:   | 2.02-3.02    |      | 5.25-6.25    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.1-10.1      |      | 12.14-13.14   |       | 13.74-14.74   |       |

| Data File | Sample      |       |       |        |      |        |      |        |      |        |      |        |       |        |       |
|-----------|-------------|-------|-------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 7M95317.D | AD07161-003 | 62552 | 2.51  | 113168 | 5.74 | 427930 | 6.75 | 246296 | 8.16 | 432739 | 9.60 | 388957 | 12.63 | 324040 | 14.24 |
| 7M95318.D | AD07161-005 | 70367 | 2.51  | 121410 | 5.74 | 453598 | 6.75 | 257055 | 8.16 | 452810 | 9.60 | 417664 | 12.63 | 359918 | 14.24 |
| 7M95319.D | AD07161-007 | 70405 | 2.51  | 126377 | 5.75 | 486741 | 6.75 | 288028 | 8.16 | 492595 | 9.60 | 460839 | 12.63 | 393055 | 14.24 |
| 7M95320.D | AD07161-008 | 74911 | 2.52  | 132512 | 5.75 | 493868 | 6.75 | 280865 | 8.16 | 484573 | 9.60 | 445106 | 12.63 | 378627 | 14.24 |
| 7M95328.D | SMB71506    | 57314 | 2.51  | 97990  | 5.74 | 360014 | 6.76 | 194994 | 8.18 | 334073 | 9.61 | 293598 | 12.64 | 241056 | 14.24 |
| 7M95330.D | 07165-015   | 0     | 0.00R | 57997  | 5.74 | 332544 | 6.75 | 197761 | 8.16 | 351453 | 9.60 | 309422 | 12.63 | 252459 | 14.24 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(NT)     | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 µg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30µg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5µg/L                           |

**Internal Standard Areas**

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

A - Indicates the compound failed the internal standard area criteria

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

R - Indicates the compound failed the internal standard retention time criteria.

**Retention Times:**

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

**Flags:**

## FORM8

## Internal Standard Areas

Evaluation Std Data File: 5M105967.D

Method: EPA 625.1

Analysis Date/Time: 10/25/18 09:19

Lab File ID: CAL BNA@50PPM

|                       | 11           |              | 12            |               | 13            |               | 14            |      | 15     |      | 16     |       | 17     |       |
|-----------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|------|--------|------|--------|-------|--------|-------|
| Area                  | RT           | Area         | RT            | Area          | RT            | Area          | RT            | Area | RT     | Area | RT     | Area  | RT     |       |
| Eval File Area/RT:    | 57222        | 2.51         | 103123        | 5.74          | 376807        | 6.75          | 216505        | 8.16 | 361026 | 9.62 | 363834 | 12.67 | 295643 | 14.28 |
| Eval File Area Limit: | 28611-114444 | 51562-206246 | 188404-753614 | 108252-433010 | 180513-722052 | 181917-727668 | 147822-591286 |      |        |      |        |       |        |       |
| Eval File RI Limit:   | 2.01-3.01    | 5.24-6.24    | 6.25-7.25     | 7.66-8.66     | 9.12-10.12    | 12.17-13.17   | 13.78-14.78   |      |        |      |        |       |        |       |

## Data File Sample

|            |                    |       |      |        |      |        |      |        |      |        |      |        |       |        |       |
|------------|--------------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 5M105968.D | WMB71518(MS)       | 56793 | 2.50 | 95693  | 5.74 | 350645 | 6.75 | 203886 | 8.16 | 333126 | 9.62 | 339276 | 12.67 | 269813 | 14.28 |
| 5M105969.D | WMB71518           | 48114 | 2.51 | 87383  | 5.74 | 317573 | 6.75 | 184910 | 8.16 | 314659 | 9.61 | 282548 | 12.66 | 228386 | 14.27 |
| 5M105972.D | AD07252-002(T)     | 50722 | 2.53 | 91577  | 5.74 | 330226 | 6.75 | 185976 | 8.16 | 327996 | 9.61 | 296532 | 12.66 | 228345 | 14.27 |
| 5M105974.D | AD07252-002(T)(MS) | 52133 | 2.53 | 91255  | 5.74 | 332638 | 6.75 | 186964 | 8.16 | 323556 | 9.62 | 320708 | 12.67 | 255035 | 14.28 |
| 5M105975.D | AD07252-002(T)(MSD | 52659 | 2.53 | 93885  | 5.74 | 338668 | 6.75 | 196602 | 8.16 | 329988 | 9.62 | 325448 | 12.67 | 254994 | 14.28 |
| 5M105976.D | AD07161-001(R)     | 54483 | 2.50 | 99600  | 5.74 | 361602 | 6.75 | 211793 | 8.16 | 356255 | 9.61 | 333064 | 12.66 | 260633 | 14.27 |
| 5M105979.D | AD07294-001        | 48455 | 2.51 | 92427  | 5.74 | 337632 | 6.75 | 197166 | 8.16 | 335962 | 9.62 | 328060 | 12.66 | 264938 | 14.28 |
| 5M105980.D | WMB71532           | 50708 | 2.51 | 95469  | 5.74 | 352993 | 6.75 | 208074 | 8.16 | 352395 | 9.61 | 326489 | 12.66 | 257269 | 14.27 |
| 5M105981.D | AD07204-001        | 55633 | 2.52 | 100584 | 5.74 | 370971 | 6.75 | 210316 | 8.16 | 351112 | 9.61 | 326929 | 12.66 | 273381 | 14.27 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(NT)     | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

## Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

## Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

## Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

**FORM8****Internal Standard Areas**

Evaluation Std Data File: 5M105989.D

Method: EPA 625.1

Analysis Date/Time: 10/26/18 08:35

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15            |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area          | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 58050        | 2.52 | 101726       | 5.74 | 371947        | 6.75 | 216928        | 8.16 | 357326        | 9.62 | 367827        | 12.67 | 305241        | 14.28 |
| Eval File Area Limit: | 29025-116100 |      | 50863-203452 |      | 185974-743894 |      | 108464-433856 |      | 178663-714652 |      | 183914-735654 |       | 152620-610482 |       |
| Eval File RT Limit:   | 2.02-3.02    |      | 5.24-6.24    |      | 6.25-7.25     |      | 7.66-8.66     |      | 9.12-10.12    |      | 12.17-13.17   |       | 13.78-14.78   |       |

| Data File  | Sample              |       |      |        |      |        |      |        |      |        |      |        |       |        |       |
|------------|---------------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 5M105990.D | WMB71532(MS)        | 52087 | 2.52 | 87428  | 5.74 | 323718 | 6.75 | 186229 | 8.16 | 312919 | 9.62 | 312665 | 12.67 | 251671 | 14.28 |
| 5M105999.D | AD07294-001(MS)     | 48432 | 2.53 | 88458  | 5.74 | 326371 | 6.75 | 183440 | 8.16 | 310016 | 9.62 | 302461 | 12.66 | 241419 | 14.27 |
| 5M106000.D | AD07294-001(MSD)    | 52330 | 2.51 | 95345  | 5.74 | 353601 | 6.75 | 194831 | 8.16 | 337761 | 9.62 | 328507 | 12.67 | 271512 | 14.27 |
| 5M106001.D | WMB71537(MS)        | 55943 | 2.52 | 101296 | 5.74 | 368795 | 6.75 | 212734 | 8.16 | 357131 | 9.61 | 354457 | 12.67 | 283305 | 14.27 |
| 5M106003.D | AD07204-001(R)      | 53575 | 2.52 | 96329  | 5.74 | 347225 | 6.75 | 199658 | 8.16 | 341035 | 9.61 | 320084 | 12.66 | 260998 | 14.27 |
| 5M106005.D | WMB71537            | 51386 | 2.52 | 88584  | 5.74 | 343328 | 6.75 | 195521 | 8.16 | 329066 | 9.61 | 306680 | 12.66 | 253568 | 14.27 |
| 5M106007.D | AD07031-001(T)      | 46323 | 2.52 | 83203  | 5.74 | 309491 | 6.75 | 183714 | 8.16 | 300348 | 9.61 | 273502 | 12.66 | 214908 | 14.27 |
| 5M106008.D | AD07031-001(T)(MS)  | 47250 | 2.52 | 85812  | 5.74 | 308064 | 6.75 | 178884 | 8.16 | 297358 | 9.61 | 295270 | 12.66 | 228581 | 14.27 |
| 5M106009.D | AD07031-001(T)(MSD) | 49268 | 2.52 | 88102  | 5.74 | 323470 | 6.75 | 189874 | 8.16 | 309296 | 9.61 | 305811 | 12.67 | 239673 | 14.27 |

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8(INT)    | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30ug/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5ug/L                           |

**Internal Standard Areas**

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

**Flags:**

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

**Retention Times:**

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

**FORM8****Internal Standard Areas**

Evaluation Std Data File: 7M95342.D

Method: EPA 625.1

Analysis Date/Time: 10/26/18 08:36

Lab File ID: CAL BNA@50PPM

|                       | 11           |      | 12           |      | 13            |      | 14            |      | 15             |      | 16            |       | 17            |       |
|-----------------------|--------------|------|--------------|------|---------------|------|---------------|------|----------------|------|---------------|-------|---------------|-------|
|                       | Area         | RT   | Area         | RT   | Area          | RT   | Area          | RT   | Area           | RT   | Area          | RT    | Area          | RT    |
| Eval File Area/RT:    | 79559        | 2.52 | 135075       | 5.75 | 495876        | 6.76 | 282515        | 8.17 | 500947         | 9.61 | 493917        | 12.64 | 429218        | 14.26 |
| Eval File Area Limit: | 39780-159118 |      | 67538-270150 |      | 247938-991752 |      | 141258-565030 |      | 250474-1001894 |      | 246958-987834 |       | 214609-858436 |       |
| Eval File Rt Limit:   | 2.02-3.02    |      | 5.25-6.25    |      | 6.26-7.26     |      | 7.67-8.67     |      | 9.11-10.11     |      | 12.14-13.14   |       | 13.76-14.76   |       |

| Data File | Sample         |       |      |        |      |        |      |        |      |        |      |        |       |        |       |
|-----------|----------------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
| 7M95345.D | WMB71532       | 81933 | 2.50 | 142613 | 5.74 | 533613 | 6.76 | 311260 | 8.17 | 552359 | 9.61 | 507660 | 12.63 | 423894 | 14.24 |
| 7M95353.D | AD07161-003(R) | 59533 | 2.51 | 102400 | 5.74 | 378587 | 6.75 | 212623 | 8.16 | 369218 | 9.60 | 337633 | 12.63 | 283040 | 14.24 |
| 7M95354.D | AD07161-005(R) | 67471 | 2.52 | 113193 | 5.74 | 410544 | 6.75 | 227004 | 8.17 | 384063 | 9.60 | 365524 | 12.63 | 316657 | 14.24 |
| 7M95355.D | AD07161-007(R) | 76086 | 2.51 | 120082 | 5.74 | 434760 | 6.76 | 241640 | 8.17 | 416506 | 9.61 | 385366 | 12.63 | 330987 | 14.24 |
| 7M95356.D | AD07161-008(R) | 74695 | 2.50 | 130977 | 5.74 | 474974 | 6.76 | 272873 | 8.17 | 472791 | 9.61 | 429667 | 12.64 | 366645 | 14.24 |
| 7M95357.D | WMB71537       | 74248 | 2.50 | 126420 | 5.74 | 463458 | 6.75 | 257943 | 8.16 | 450538 | 9.60 | 410775 | 12.63 | 351085 | 14.25 |

**Internal Standard Areas**

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

**Flags:**

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

|      |                        |      |                  |      |              |                                                                       |
|------|------------------------|------|------------------|------|--------------|-----------------------------------------------------------------------|
| 11 = | 1,4-Dioxane-d8 (INT)   | 14 = | Acenaphthene-d10 | 17 = | Perylene-d12 | 625/8270 Internal Standard concentration = 40 mg/L (in final extract) |
| 12 = | 1,4-Dichlorobenzene-d4 | 15 = | Phenanthrene-d10 |      |              | 624/8260 Internal Standard concentration = 30mg/L                     |
| 13 = | Naphthalene-d8         | 16 = | Chrysene-d12     |      |              | 524 Internal Standard concentration = 5mg/L                           |

**Retention Times:** Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

**GC/MS Base Neutral/Acid Extractable Data  
Sample Data**

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-001

Client Id: LMW-2-102018 U

Data File: 5M105877.D

Analysis Date: 10/19/18 12:44

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 970ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

| Units: ug/L |                            |      |      |          |                             |      |      |
|-------------|----------------------------|------|------|----------|-----------------------------|------|------|
| Cas #       | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
| 92-52-4     | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3     | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1    | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2     | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4     | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2     | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2    | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9    | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5     | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2    | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2    | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7     | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8     | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6     | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7     | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4     | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5     | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5    | 3&4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1     | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2     | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1    | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3    | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7     | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8    | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3   | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6    | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7    | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9     | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8    | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2     | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7    | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9   | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7    | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3     | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

8101509 0189

SampleID : AD07118-001  
 Data File: 5M105877.D  
 Acq On : 10/19/18 12:44

Operator : AH/JB  
 Sam Mult : 1 Vial# : 8  
 Misc : A,BNA

Qt Meth : 5M\_1000.M  
 Qt On : 10/19/18 14:56  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

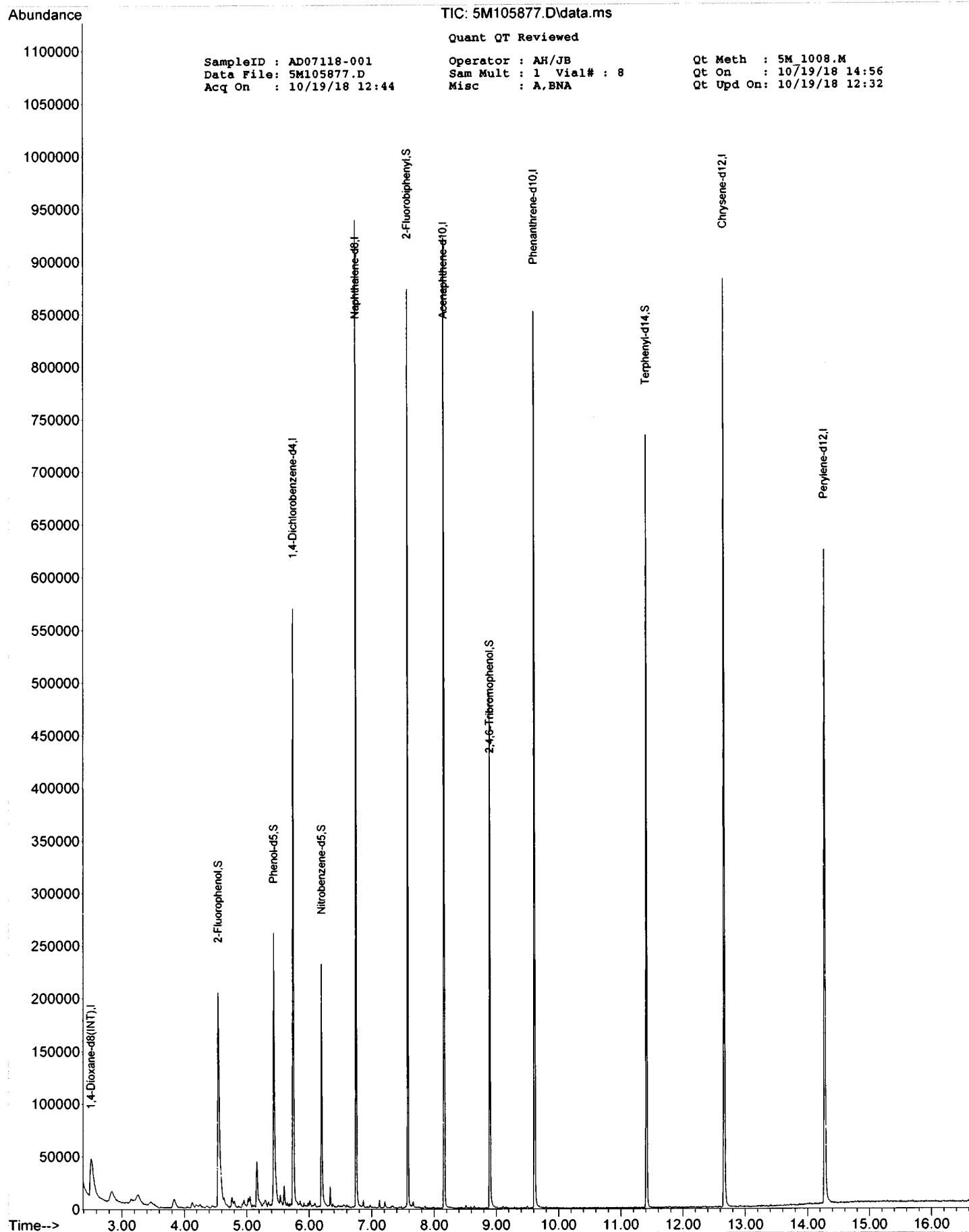
| Compound                    | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|--------|------|----------|-------|--------|----------|
| -----                       |        |      |          |       |        |          |
| Internal Standards          |        |      |          |       |        |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.510  | 96   | 53505    | 40.00 | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 99313    | 40.00 | ng     | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 356006   | 40.00 | ng     | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 202378   | 40.00 | ng     | 0.00     |
| 77) Phenanthrene-d10        | 9.616  | 188  | 341916   | 40.00 | ng     | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 315621   | 40.00 | ng     | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 244091   | 40.00 | ng     | 0.00     |
| System Monitoring Compounds |        |      |          |       |        |          |
| 11) 2-Fluorophenol          | 4.540  | 112  | 112734   | 40.59 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 40.59% |          |
| 16) Phenol-d5               | 5.433  | 99   | 115077   | 26.86 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 26.86% |          |
| 32) Nitrobenzene-d5         | 6.197  | 128  | 33510    | 31.90 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 63.80% |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 225488   | 34.83 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 69.66% |          |
| 80) 2,4,6-Tribromophenol    | 8.900  | 330  | 42440    | 65.98 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 65.98% |          |
| 94) Terphenyl-d14           | 11.411 | 244  | 215600   | 42.71 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 85.42% |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed







## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-003

Client Id: PC-1-10 2018 U

Data File: 5M105878.D

Analysis Date: 10/19/18 13:08

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

8101509 0192

SampleID : AD07118-003  
 Data File: 5M105878.D  
 Acq On : 10/19/18 13:08

Operator : AH/JB  
 Sam Mult : 1 Vial# : 9  
 Misc : A,BNA

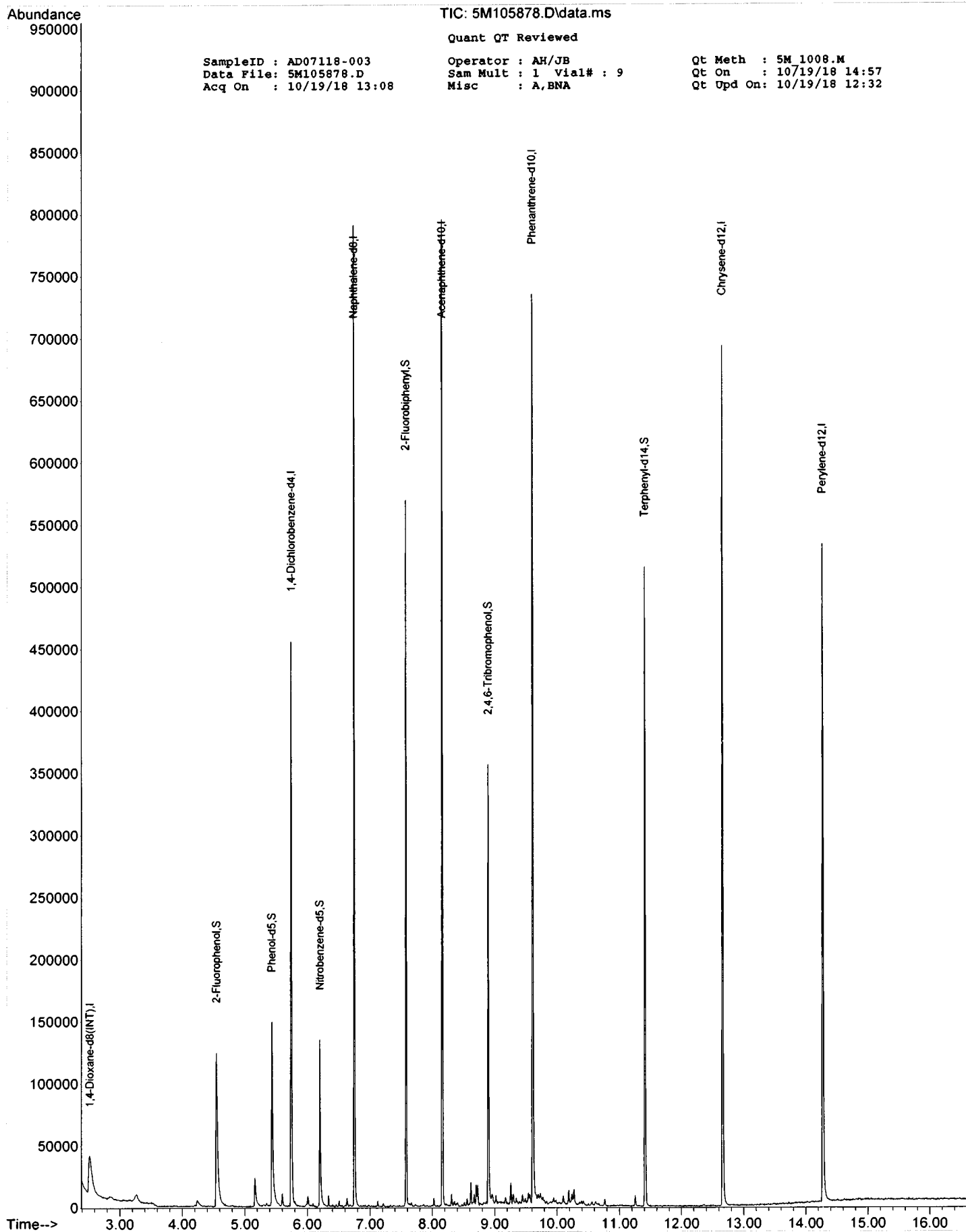
Qt Meth : 5M\_1000.M  
 Qt On : 10/19/18 14:57  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|--------|------|----------|-------|--------|----------|
| -----                       |        |      |          |       |        |          |
| Internal Standards          |        |      |          |       |        |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.521  | 96   | 44438    | 40.00 | ng     | 0.02     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 78955    | 40.00 | ng     | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 297321   | 40.00 | ng     | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 176851   | 40.00 | ng     | 0.00     |
| 77) Phenanthrene-d10        | 9.610  | 188  | 291827   | 40.00 | ng     | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 260032   | 40.00 | ng     | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 202908   | 40.00 | ng     | 0.00     |
| System Monitoring Compounds |        |      |          |       |        |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 70354    | 30.50 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 30.50% |          |
| 16) Phenol-d5               | 5.433  | 99   | 75461    | 21.21 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 21.21% |          |
| 32) Nitrobenzene-d5         | 6.197  | 128  | 20214    | 23.04 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 46.08% |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 151903   | 26.85 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 53.70% |          |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330  | 29758    | 54.98 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 54.98% |          |
| 94) Terphenyl-d14           | 11.411 | 244  | 149324   | 35.90 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 71.80% |          |
| Target Compounds            |        |      |          |       |        |          |
|                             |        |      |          |       |        | Qvalue   |
| -----                       |        |      |          |       |        |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-005

Client Id: GW-DUP1-102018 U

Data File: 5M105879.D

Analysis Date: 10/19/18 13:31

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

SampleID : AD07118-005  
 Data File: 5M105879.D  
 Acq On : 10/19/18 13:31

Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 5M\_1000.M  
 Qt On : 10/19/18 14:57  
 Qt Upd On: 10/19/18 12:32

8101509 0195

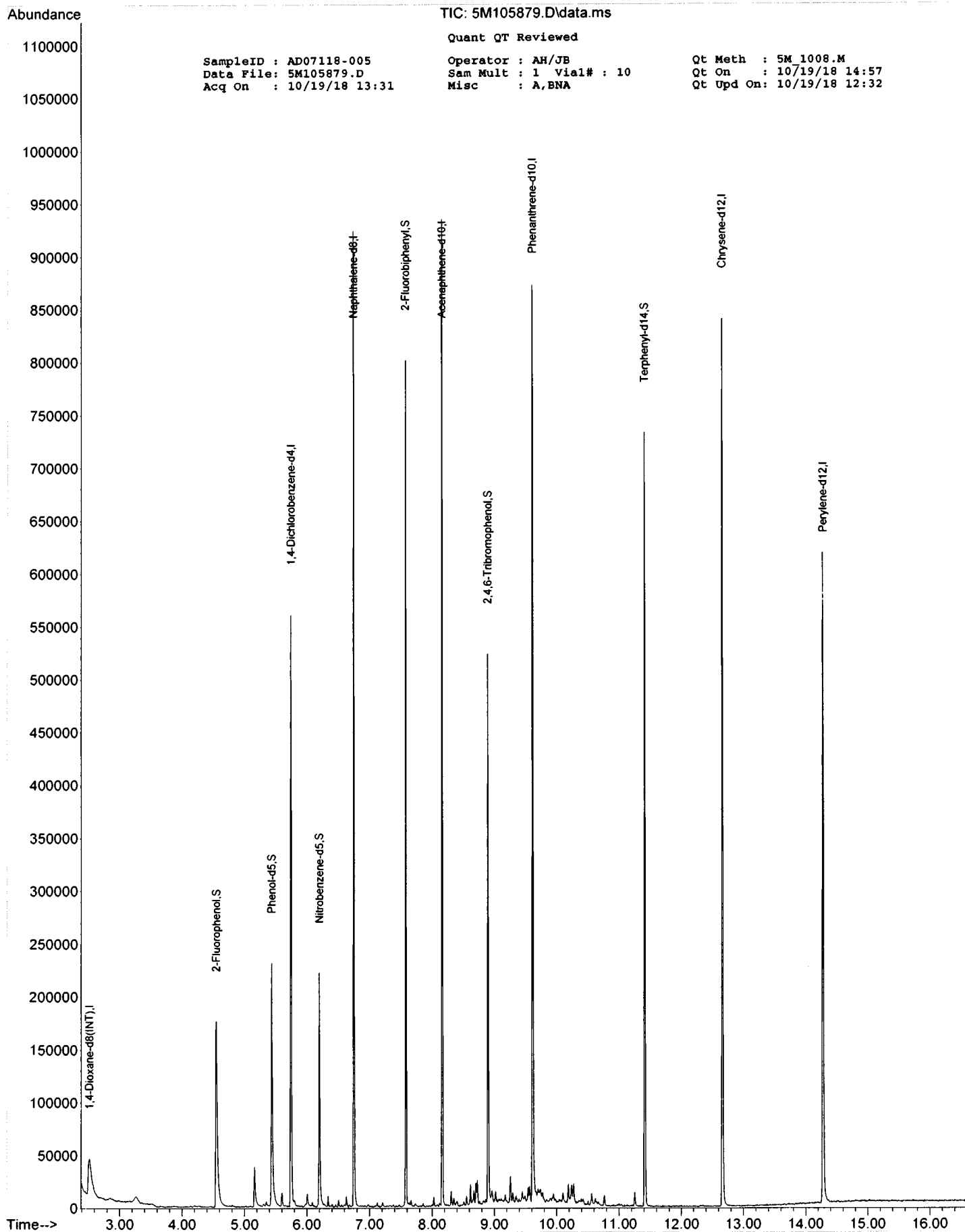
Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|------------|--------|-------|----------|
| -----                       |        |      |            |        |       |          |
| Internal Standards          |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.521  | 96   | 52067      | 40.00  | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 95950      | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 353356     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 201098     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.615  | 188  | 344266     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 305103     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12           | 14.279 | 264  | 243639     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds |        |      |            |        |       |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 96857      | 35.83  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 35.83% |       |          |
| 16) Phenol-d5               | 5.433  | 99   | 102040     | 24.48  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 24.48% |       |          |
| 32) Nitrobenzene-d5         | 6.196  | 128  | 31724      | 30.42  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 60.84% |       |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 216369     | 33.64  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 67.28% |       |          |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330  | 43558      | 67.15  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 67.15% |       |          |
| 94) Terphenyl-d14           | 11.410 | 244  | 214552     | 43.96  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 87.92% |       |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07118-007

Client Id: MW-11-102018 U

Data File: 5M105880.D

Analysis Date: 10/19/18 13:55

Date Rec/Extracted: 10/15/18-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | 0.56 |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0.56

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.



SampleID : AD07118-007  
 Data File: 5M105880.D  
 Acq On : 10/19/18 13:55

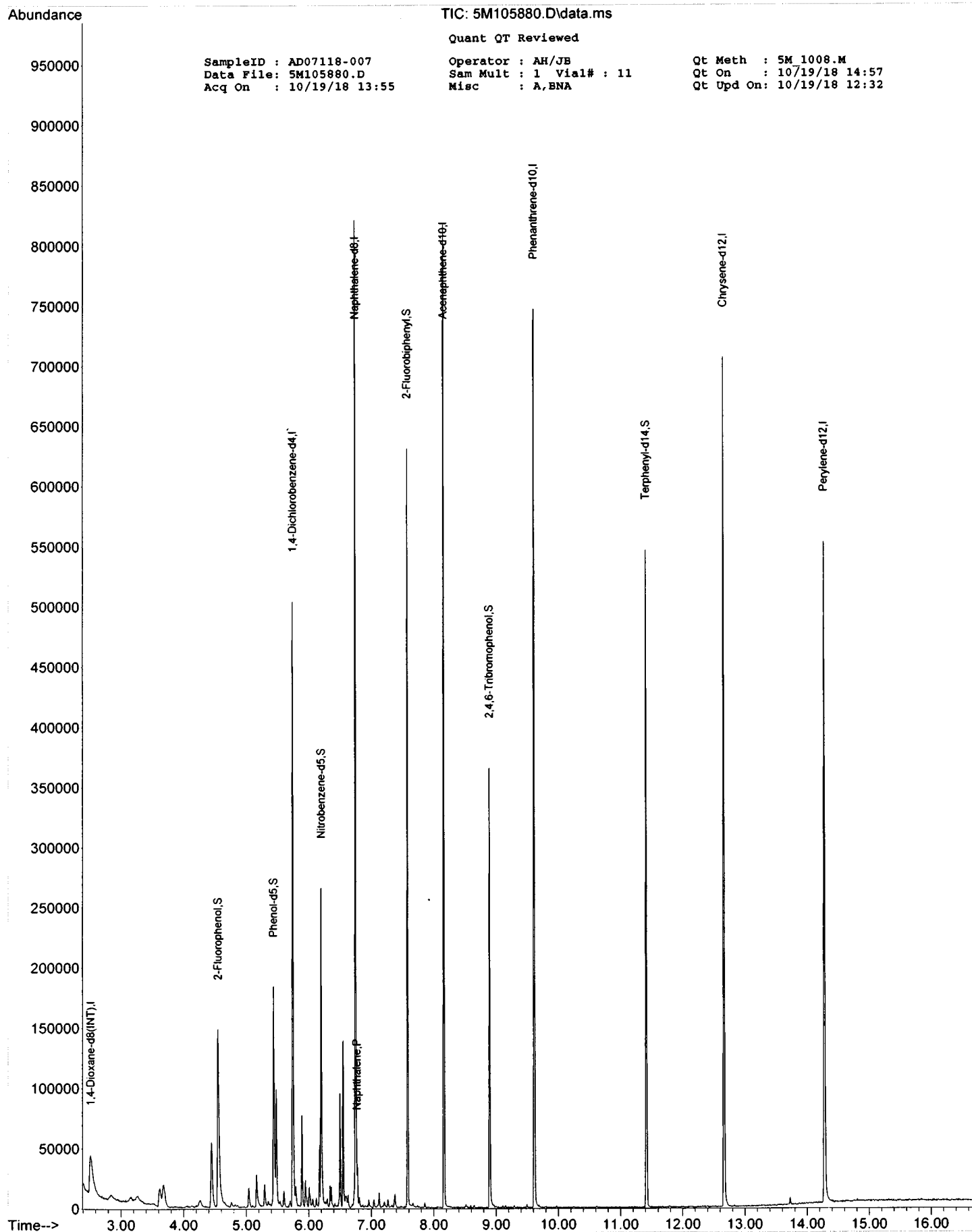
Operator : AH/JB  
 Sam Mult : 1 Vial# : 11  
 Misc : A,BNA

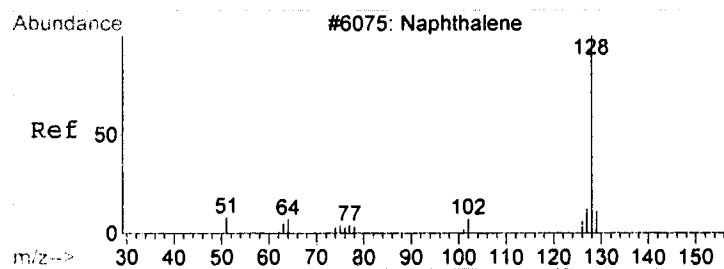
Qt Meth : 5M\_1008.M  
 Qt On : 10/19/18 14:57  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|------------|--------|-------|----------|
| -----                       |        |      |            |        |       |          |
| Internal Standards          |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.516  | 96   | 46742      | 40.00  | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 85075      | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 308610     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 176127     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.616  | 188  | 297969     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 264163     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 213647     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds |        |      |            |        |       |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 79971      | 32.96  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 32.96% |       |          |
| 16) Phenol-d5               | 5.433  | 99   | 82200      | 21.97  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 21.97% |       |          |
| 32) Nitrobenzene-d5         | 6.197  | 128  | 26977      | 29.62  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 59.24% |       |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 168619     | 29.93  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 59.86% |       |          |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330  | 31575      | 56.99  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 56.99% |       |          |
| 94) Terphenyl-d14           | 11.411 | 244  | 158235     | 37.45  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 74.90% |       |          |
| Target Compounds            |        |      |            |        |       |          |
| 41) Naphthalene             | 6.768  | 128  | 9212m      | 1.1163 | ng    | Qvalue   |
| -----                       |        |      |            |        |       |          |

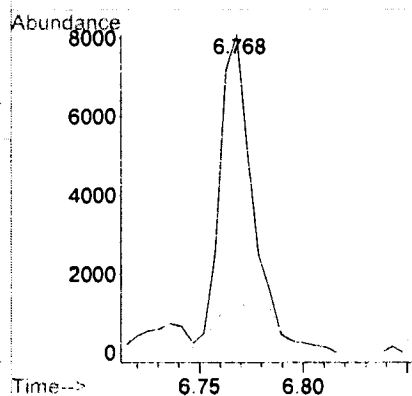
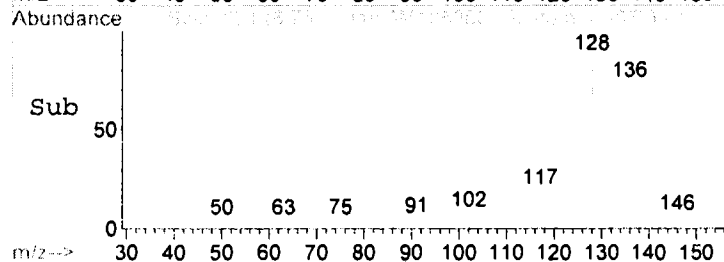
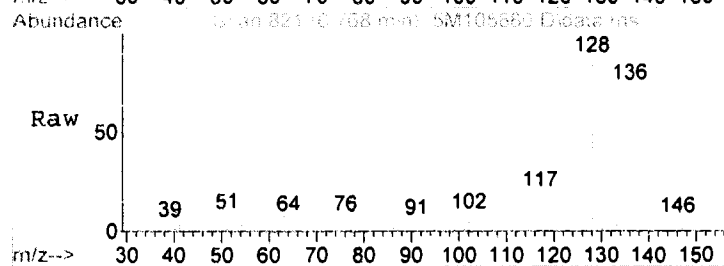
(#) = qualifier out of range (m) = manual integration (+) = signals summed





#41  
Naphthalene  
Concen: 1.12 ng m  
RT: 6.768 min Scan# 821  
Delta R.T. 0.001 min  
Lab File: 5M105880.D  
Acq: 19 Oct 2018 13:55

| Tgt Ion   | 128  | 129  | 127  |
|-----------|------|------|------|
| Ion Ratio | 100  | 17.1 | 13.7 |
| Resp      | 9212 | 0.0  | 0.0  |
| Lower     |      | 50.9 | 52.4 |
| Upper     |      |      |      |



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-001

Client Id: LMW-4-102018 U

Data File: 5M105905.D

Analysis Date: 10/22/18 11:41

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

8101509 0202

SampleID : AD07137-001  
 Data File: 5M105905.D  
 Acq On : 10/22/18 11:41

Operator : AH/JB  
 Sam Mult : 1 Vial# : 11  
 Misc : A,BNA

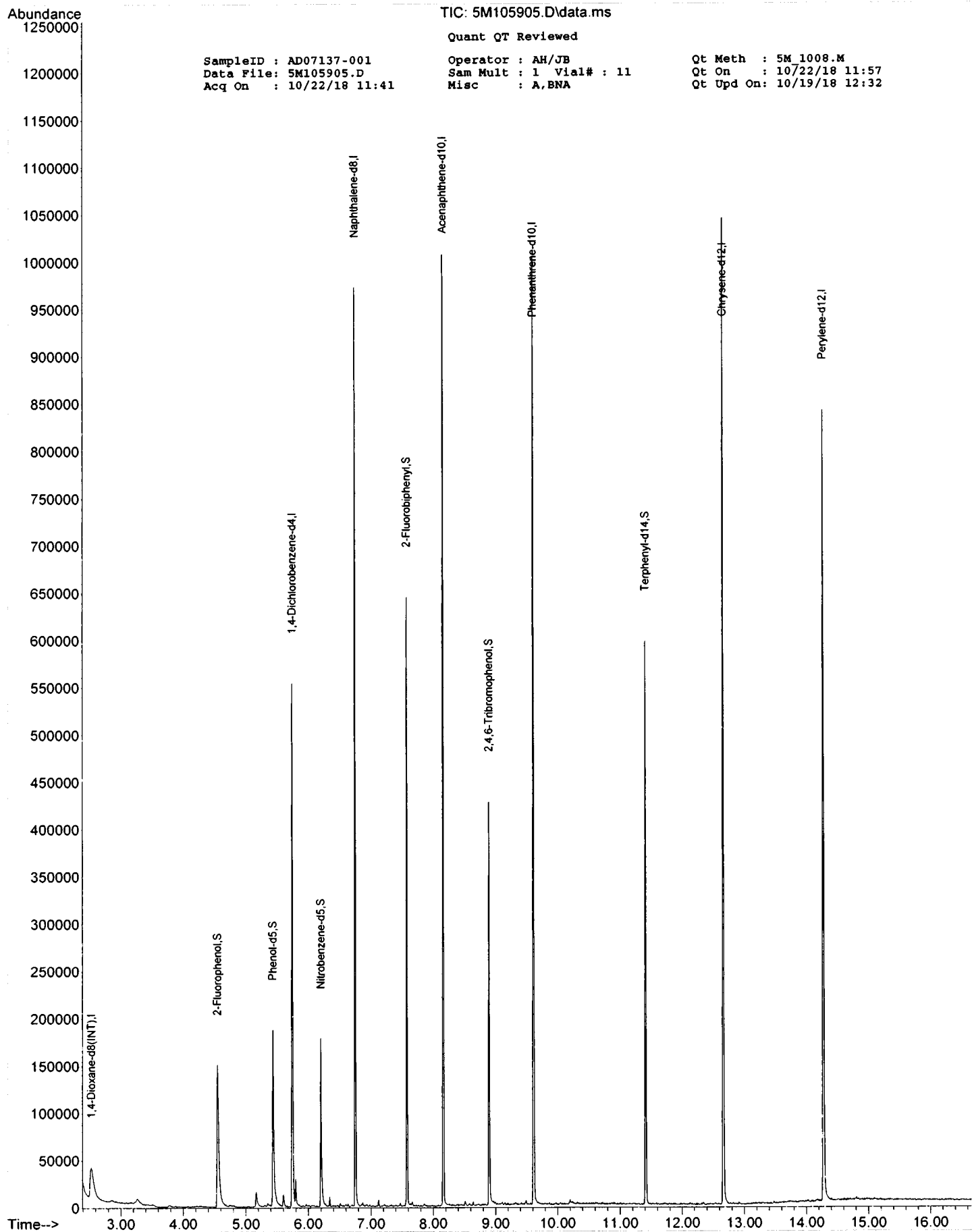
Qt Meth : 5M\_1008.M  
 Qt On : 10/22/18 11:57  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|------------|--------|-------|----------|
| -----                       |        |      |            |        |       |          |
| Internal Standards          |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.526  | 96   | 50447      | 40.00  | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 96060      | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 360245     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 220703     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.610  | 188  | 375204     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12            | 12.660 | 240  | 363492     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 309611     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds |        |      |            |        |       |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 85662      | 32.71  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 32.71% |       |          |
| 16) Phenol-d5               | 5.432  | 99   | 87753      | 21.73  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 21.73% |       |          |
| 32) Nitrobenzene-d5         | 6.196  | 128  | 25374      | 23.87  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 47.74% |       |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 180920     | 25.63  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 51.26% |       |          |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330  | 35739      | 51.59  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 51.59% |       |          |
| 94) Terphenyl-d14           | 11.410 | 244  | 172162     | 29.61  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 59.22% |       |          |
| Target Compounds            |        |      |            |        |       |          |
|                             |        |      |            |        |       | Qvalue   |
| -----                       |        |      |            |        |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-003

Client Id: PC-2-102018 U

Data File: 5M105906.D

Analysis Date: 10/22/18 12:04

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07137-003  
 Data File: 5M105906.D  
 Acq On : 10/22/18 12:04

Operator : AH/JB  
 Sam Mult : 1 Vial# : 12  
 Misc : A,BNA

Qt Meth : 5M\_100  
 Qt On : 10/22/18 12:30  
 Qt Upd On: 10/19/18 12:32

8101509 0205

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

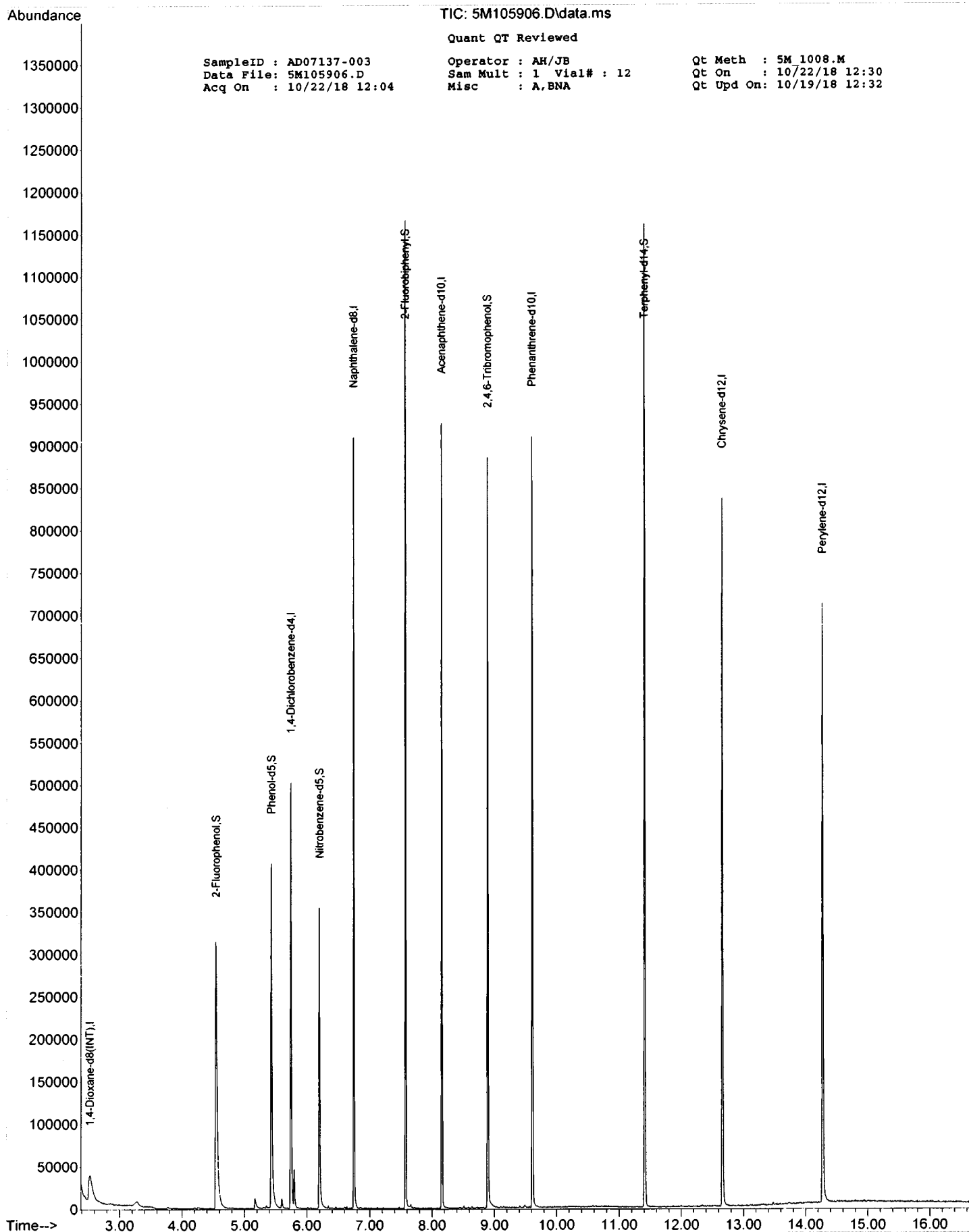
| Compound                    | R.T.   | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|--------|------|----------|--------|---------|----------|
| -----                       |        |      |          |        |         |          |
| Internal Standards          |        |      |          |        |         |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.526  | 96   | 48497    | 40.00  | ng      | 0.02     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 87458    | 40.00  | ng      | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 328130   | 40.00  | ng      | 0.00     |
| 50) Acenaphthene-d10        | 8.157  | 164  | 194871   | 40.00  | ng      | 0.00     |
| 77) Phenanthrene-d10        | 9.610  | 188  | 327141   | 40.00  | ng      | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 313048   | 40.00  | ng      | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 261186   | 40.00  | ng      | 0.00     |
| System Monitoring Compounds |        |      |          |        |         |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 176824   | 70.23  | ng      | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 70.23%  |          |
| 16) Phenol-d5               | 5.433  | 99   | 183308   | 47.21  | ng      | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 47.21%  |          |
| 32) Nitrobenzene-d5         | 6.197  | 128  | 51263    | 52.94  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 105.88% |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 340862   | 54.69  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 109.38% |          |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330  | 74217    | 113.60 | ng      | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 113.60% |          |
| 94) Terphenyl-d14           | 11.411 | 244  | 339298   | 67.76  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 135.52% |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed







## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07137-005

Client Id: PC-3-102018 U

Data File: 5M105907.D

Analysis Date: 10/22/18 12:28

Date Rec/Extracted: 10/16/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07137-005  
 Data File: 5M105907.D  
 Acq On : 10/22/18 12:28

Operator : AH/JB  
 Sam Mult : 1 Vial# : 13  
 Misc : A,BNA

Qt Meth : 5M\_1000  
 Qt On : 10/22/18 13:01  
 Qt Upd On: 10/19/18 12:32

8101509 0208

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

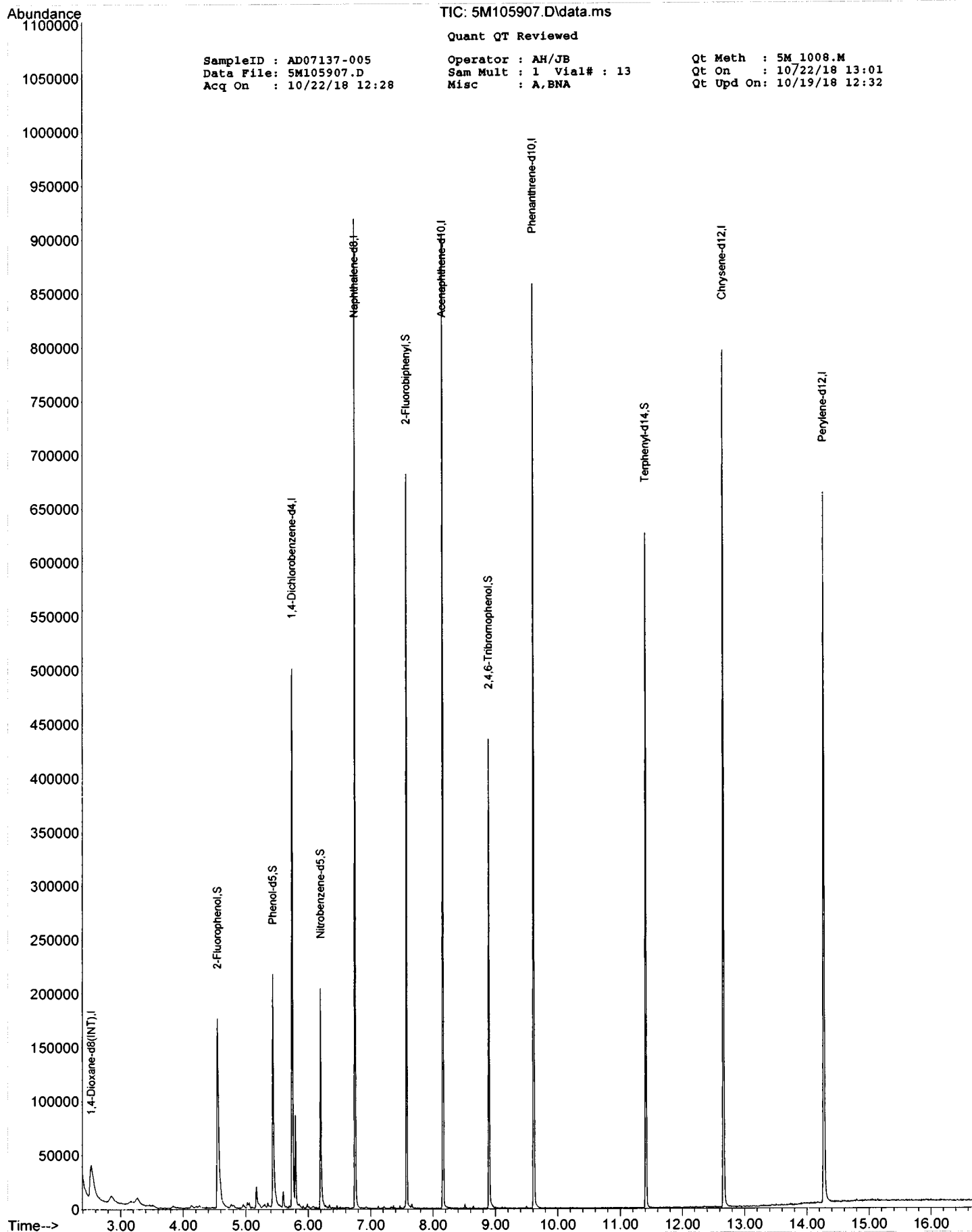
| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.526  | 96   | 48673    | 40.00 | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4 | 5.742  | 152  | 88289    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 333175   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.157  | 164  | 191004   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 317989   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.660 | 240  | 299350   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 246370   | 40.00 | ng    | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 11) 2-Fluorophenol          | 4.546  | 112 | 98095    | 38.82 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 38.82% |      |
| 16) Phenol-d5               | 5.432  | 99  | 96847    | 24.85 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 24.85% |      |
| 32) Nitrobenzene-d5         | 6.196  | 128 | 29330    | 29.83 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 59.66% |      |
| 55) 2-Fluorobiphenyl        | 7.580  | 172 | 199729   | 32.69 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 65.38% |      |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330 | 37597    | 63.08 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 63.08% |      |
| 94) Terphenyl-d14           | 11.410 | 244 | 185804   | 38.80 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 77.60% |      |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-001(R)

Client Id: SW-1-102018

Data File: 5M105976.D

Analysis Date: 10/25/18 13:19

Date Rec/Extracted: 10/17/18-10/24/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 400ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 2.5  | U    | 50-32-8  | Benzo[a]pyrene              | 2.5  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 2.5  | U    | 205-99-2 | Benzo[b]fluoranthene        | 2.5  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.62 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 2.5  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 2.5  | U    | 207-08-9 | Benzo[k]fluoranthene        | 2.5  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 2.5  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 2.5  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 2.5  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.62 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.62 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 2.5  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.62 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 2.5  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 12   | U    | 85-68-7  | Butylbenzylphthalate        | 2.5  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 2.5  | U    | 105-60-2 | Caprolactam                 | 2.5  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 2.5  | U    | 86-74-8  | Carbazole                   | 2.5  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 2.5  | U    | 218-01-9 | Chrysene                    | 2.5  | U    |
| 95-57-8   | 2-Chlorophenol             | 2.5  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 2.5  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 2.5  | U    | 132-64-9 | Dibenzofuran                | 0.62 | U    |
| 95-48-7   | 2-Methylphenol             | 0.62 | U    | 84-66-2  | Diethylphthalate            | 2.5  | U    |
| 88-74-4   | 2-Nitroaniline             | 2.5  | U    | 131-11-3 | Dimethylphthalate           | 2.5  | U    |
| 88-75-5   | 2-Nitrophenol              | 2.5  | U    | 84-74-2  | Di-n-butylphthalate         | 0.62 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.62 | U    | 117-84-0 | Di-n-octylphthalate         | 2.5  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 2.5  | U    | 206-44-0 | Fluoranthene                | 2.5  | U    |
| 99-09-2   | 3-Nitroaniline             | 2.5  | U    | 86-73-7  | Fluorene                    | 2.5  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 12   | U    | 118-74-1 | Hexachlorobenzene           | 2.5  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 2.5  | U    | 87-68-3  | Hexachlorobutadiene         | 2.5  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 2.5  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 2.5  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.62 | U    | 67-72-1  | Hexachloroethane            | 2.5  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2.5  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 2.5  | U    |
| 100-01-6  | 4-Nitroaniline             | 2.5  | U    | 78-59-1  | Isophorone                  | 2.5  | U    |
| 100-02-7  | 4-Nitrophenol              | 2.5  | U    | 91-20-3  | Naphthalene                 | 0.62 | U    |
| 83-32-9   | Acenaphthene               | 2.5  | U    | 98-95-3  | Nitrobenzene                | 2.5  | U    |
| 208-96-8  | Acenaphthylene             | 2.5  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.62 | U    |
| 98-86-2   | Acetophenone               | 2.5  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 2.5  | U    |
| 120-12-7  | Anthracene                 | 2.5  | U    | 87-86-5  | Pentachlorophenol           | 12   | U    |
| 1912-24-9 | Atrazine                   | 2.5  | U    | 85-01-8  | Phenanthrene                | 2.5  | U    |
| 100-52-7  | Benzaldehyde               | 2.5  | U    | 108-95-2 | Phenol                      | 2.5  | U    |
| 56-55-3   | Benzo[a]anthracene         | 2.5  | U    | 129-00-0 | Pyrene                      | 2.5  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of a-Chlordane and γ-Chlordane.

SampleID : AD07161-001(R)  
Data File: 5M105976.D  
Acq On : 10/25/18 13:19

Operator : AH/JB  
Sam Mult : 1 Vial# : 11  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/25/18 13:47  
Qt Upd On: 10/25/18 12:46

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-25-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8(INT)     | 2.505  | 96   | 54483    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.737  | 152  | 99600    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 361602   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.162  | 164  | 211793   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 356255   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.661 | 240  | 333064   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 260633   | 40.00 | ng    | 0.00     |

## System Monitoring Compounds

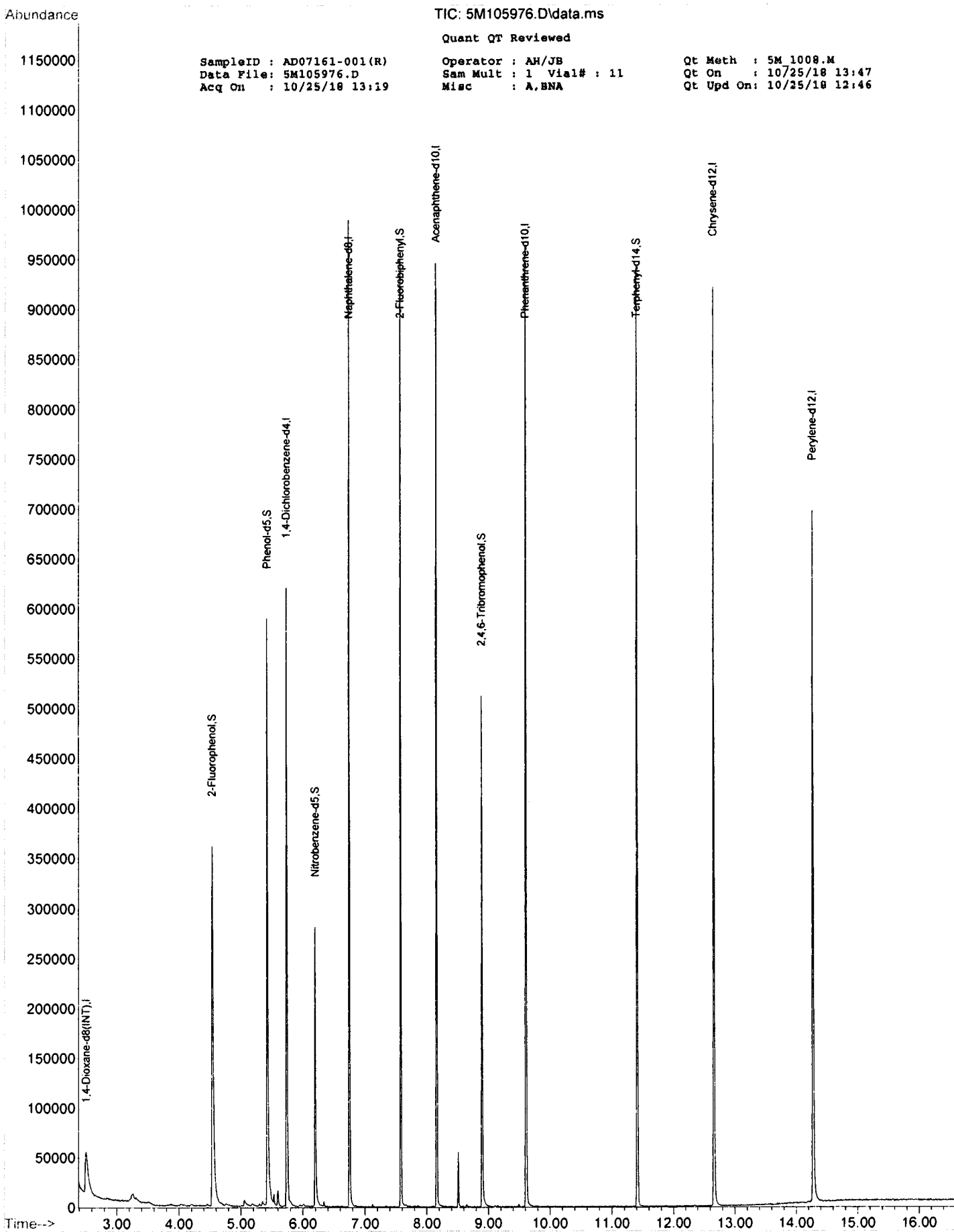
|                          |        |     |            |         |    |      |
|--------------------------|--------|-----|------------|---------|----|------|
| 11) 2-Fluorophenol       | 4.535  | 112 | 177570     | 62.78   | ng | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery = | 62.78%  |    |      |
| 16) Phenol-d5            | 5.427  | 99  | 232217     | 53.24   | ng | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery = | 53.24%  |    |      |
| 32) Nitrobenzene-d5      | 6.196  | 128 | 42603      | 39.92   | ng | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery = | 79.84%  |    |      |
| 55) 2-Fluorobiphenyl     | 7.580  | 172 | 274504     | 40.52   | ng | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery = | 81.04%  |    |      |
| 80) 2,4,6-Tribromophenol | 8.894  | 330 | 43105      | 64.44   | ng | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery = | 64.44%  |    |      |
| 94) Terphenyl-d14        | 11.410 | 244 | 276629     | 51.92   | ng | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery = | 103.84% |    |      |

## Target Compounds

Qvalue

-----

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-002

Client Id: SD-1-102018

Data File: 9M88680.D

Analysis Date: 10/20/18 00:07

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 36

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.093 | U    | 50-32-8   | Benzo[a]pyrene             | 0.093 | 0.21 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.093 | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.093 | 0.31 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.093 | 0.14 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.093 | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.093 | 0.10 | 95-95-4   | 2,4,5-Trichlorophenol      | 0.093 | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.093 | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.093 | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.023 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.023 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.093 | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.023 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.093 | U    | 51-28-5   | 2,4-Dinitrophenol          | 0.46  | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.093 | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.093 | U    |
| 105-60-2 | Caprolactam                 | 0.093 | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.093 | U    |
| 86-74-8  | Carbazole                   | 0.093 | U    | 91-58-7   | 2-Chloronaphthalene        | 0.093 | U    |
| 218-01-9 | Chrysene                    | 0.093 | 0.23 | 95-57-8   | 2-Chlorophenol             | 0.093 | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.093 | U    | 91-57-6   | 2-Methylnaphthalene        | 0.093 | U    |
| 132-64-9 | Dibenzofuran                | 0.023 | U    | 95-48-7   | 2-Methylphenol             | 0.023 | U    |
| 84-66-2  | Diethylphthalate            | 0.093 | U    | 88-74-4   | 2-Nitroaniline             | 0.093 | U    |
| 131-11-3 | Dimethylphthalate           | 0.093 | U    | 88-75-5   | 2-Nitrophenol              | 0.093 | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.023 | U    | 106-44-5  | 3&4-Methylphenol           | 0.023 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.093 | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.093 | U    |
| 206-44-0 | Fluoranthene                | 0.093 | 0.35 | 99-09-2   | 3-Nitroaniline             | 0.093 | U    |
| 86-73-7  | Fluorene                    | 0.093 | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.46  | U    |
| 118-74-1 | Hexachlorobenzene           | 0.093 | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.093 | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.093 | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.093 | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.093 | U    | 106-47-8  | 4-Chloroaniline            | 0.023 | U    |
| 67-72-1  | Hexachloroethane            | 0.093 | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.093 | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.093 | 0.12 | 100-01-6  | 4-Nitroaniline             | 0.093 | U    |
| 78-59-1  | Isophorone                  | 0.093 | U    | 100-02-7  | 4-Nitrophenol              | 0.093 | U    |
| 91-20-3  | Naphthalene                 | 0.023 | U    | 83-32-9   | Acenaphthene               | 0.093 | U    |
| 98-95-3  | Nitrobenzene                | 0.093 | U    | 208-96-8  | Acenaphthylene             | 0.093 | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.023 | U    | 98-86-2   | Acetophenone               | 0.093 | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.093 | U    | 120-12-7  | Anthracene                 | 0.093 | U    |
| 87-86-5  | Pentachlorophenol           | 0.46  | U    | 1912-24-9 | Atrazine                   | 0.093 | U    |
| 85-01-8  | Phenanthrene                | 0.093 | 0.16 | 100-52-7  | Benzaldehyde               | 0.093 | U    |
| 108-95-2 | Phenol                      | 0.093 | U    | 56-55-3   | Benzo[a]anthracene         | 0.093 | 0.16 |
| 129-00-0 | Pyrene                      | 0.093 | 0.35 |           |                            |       |      |

Worksheet #: 489030

Total Target Concentration 2.1

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a



SampleID : AD07161-002  
 Data File: 9M88680.D  
 Acq On : 10/20/18 00:07

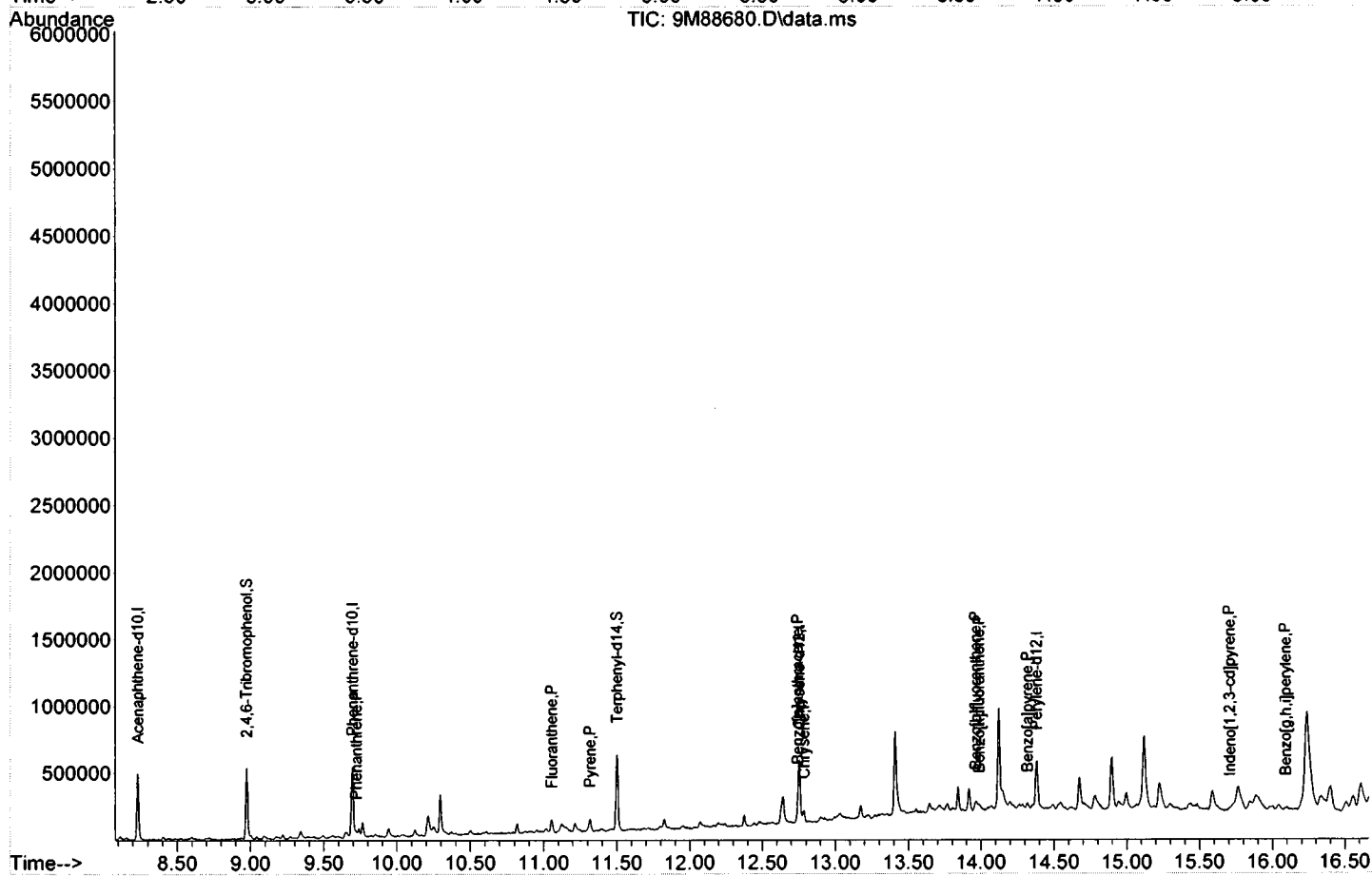
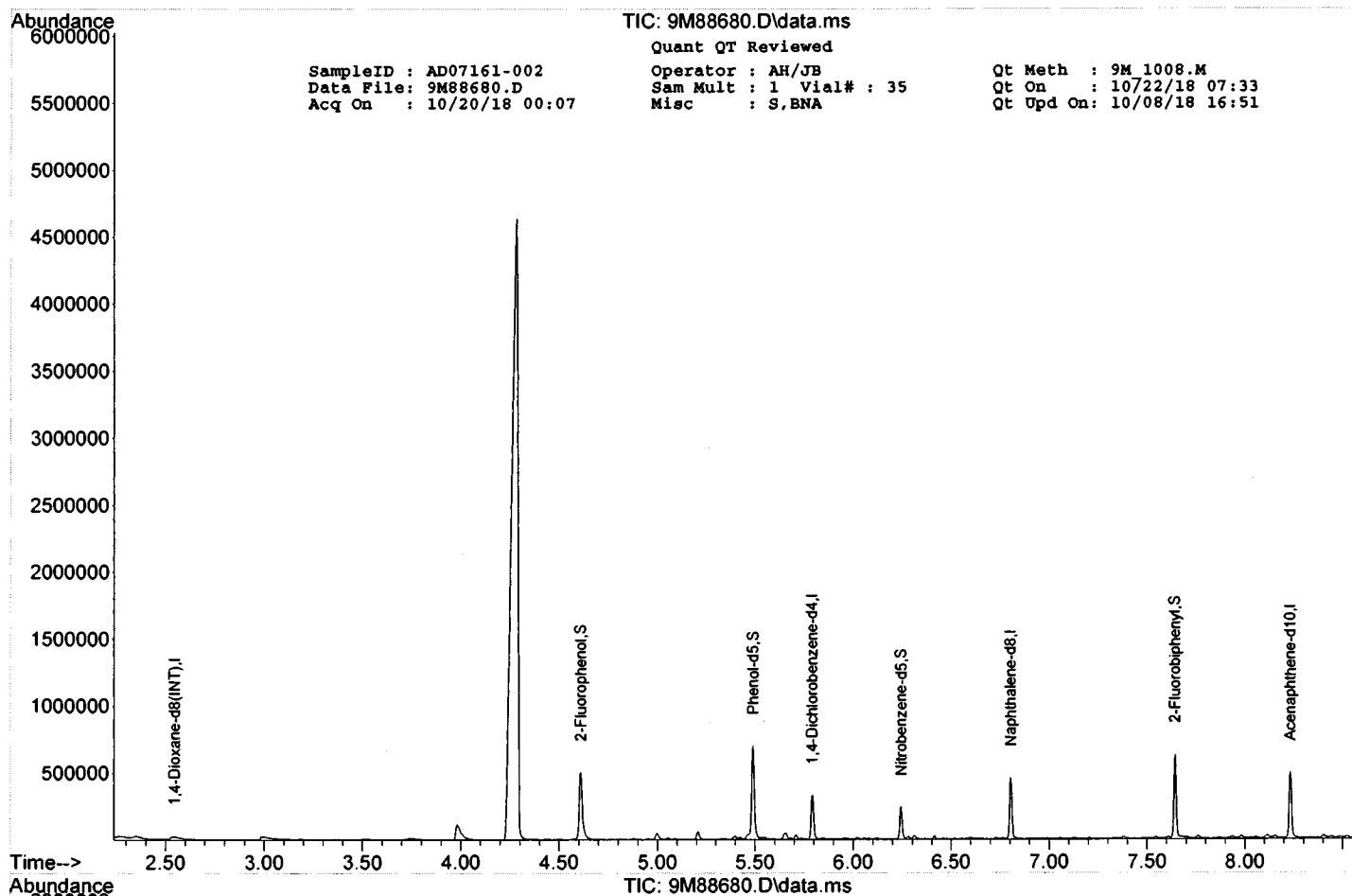
Operator : AH/JB  
 Sam Mult : 1 Vial# : 35  
 Misc : S,BNA

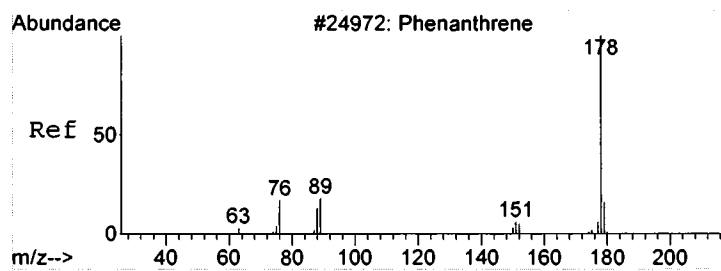
Qt Meth : 9M\_1008.M  
 Qt On : 10/22/18 07:33  
 Qt Upd On: 10/08/18 16:51

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-1918\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards          |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.544  | 96   | 24590      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.791  | 152  | 47005      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.803  | 136  | 172175     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.232  | 164  | 102274     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.696  | 188  | 171650     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12            | 12.756 | 240  | 175677     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12           | 14.381 | 264  | 151830     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds |        |      |            |         |       |          |
| 11) 2-Fluorophenol          | 4.609  | 112  | 140315     | 97.28   | ng    | 0.02     |
| Spiked Amount 100.000       |        |      | Recovery = | 97.28%  |       |          |
| 16) Phenol-d5               | 5.490  | 99   | 205760     | 99.11   | ng    | 0.01     |
| Spiked Amount 100.000       |        |      | Recovery = | 99.11%  |       |          |
| 32) Nitrobenzene-d5         | 6.243  | 128  | 26773      | 48.83   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 97.66%  |       |          |
| 55) 2-Fluorobiphenyl        | 7.644  | 172  | 168664     | 51.11   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 102.22% |       |          |
| 80) 2,4,6-Tribromophenol    | 8.974  | 330  | 52217      | 110.16  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 110.16% |       |          |
| 94) Terphenyl-d14           | 11.503 | 244  | 170363     | 57.27   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 114.54% |       |          |
| Target Compounds            |        |      |            |         |       |          |
| 86) Phenanthrene            | 9.721  | 178  | 14831      | 3.3982  | ng    | 96       |
| 90) Fluoranthene            | 11.054 | 202  | 40120      | 7.5010  | ng    | 90       |
| 92) Pyrene                  | 11.318 | 202  | 36837      | 7.5154  | ng    | 87       |
| 100) Benzo[a]anthracene     | 12.744 | 228  | 16602m     | 3.4383  | ng    |          |
| 101) Chrysene               | 12.787 | 228  | 21497m     | 4.9562  | ng    |          |
| 105) Benzo[b]fluoranthene   | 13.966 | 252  | 29000m     | 6.7655  | ng    |          |
| 106) Benzo[k]fluoranthene   | 13.989 | 252  | 9739m      | 2.2342  | ng    |          |
| 107) Benzo[a]pyrene         | 14.319 | 252  | 19396      | 4.5963  | ng    | 86       |
| 108) Indeno[1,2,3-cd]pyrene | 15.708 | 276  | 11871      | 2.5789  | ng    | 74       |
| 110) Benzo[g,h,i]perylene   | 16.092 | 276  | 11648      | 3.0583  | ng    | 71       |

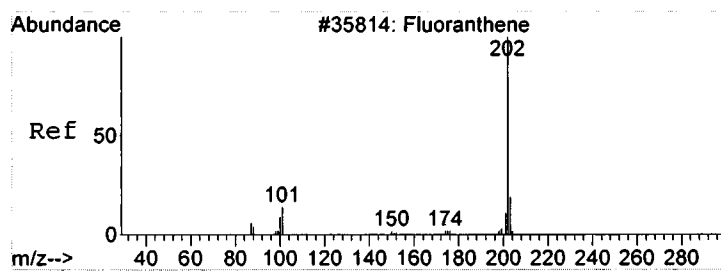
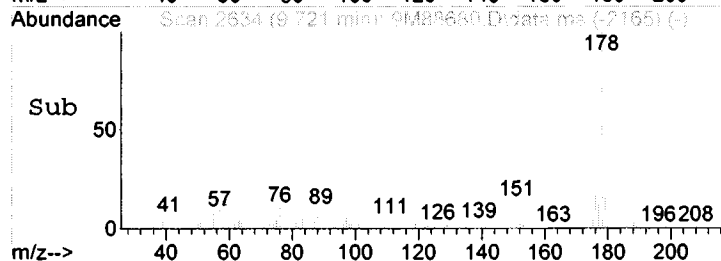
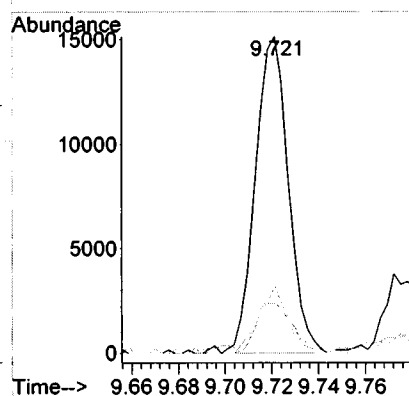
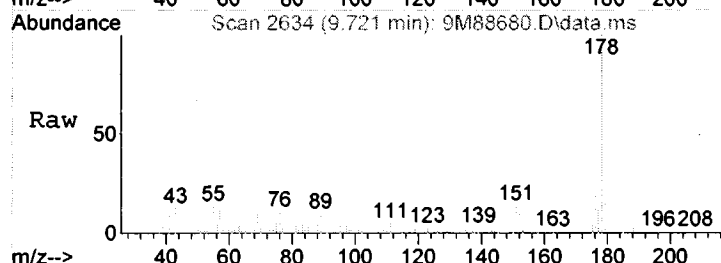
(#) = qualifier out of range (m) = manual integration (+) = signals summed





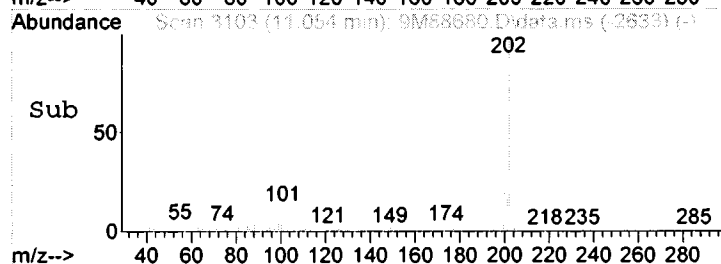
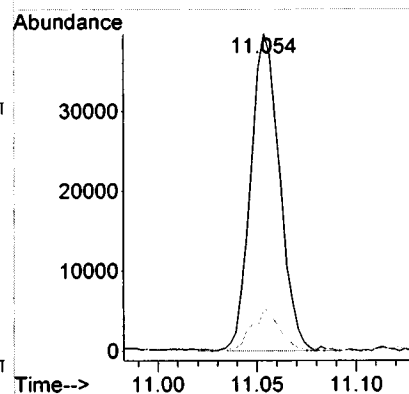
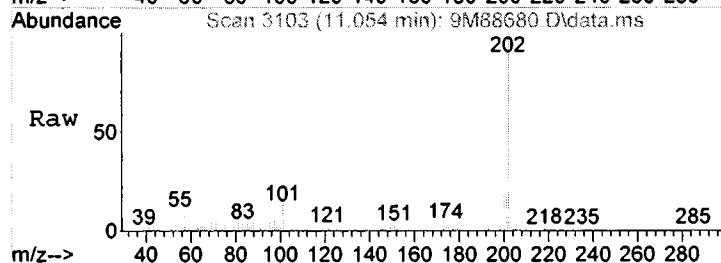
#86  
Phenanthrene  
Concen: 3.40 ng  
RT: 9.721 min Scan# 2634  
Delta R.T. 0.006 min  
Lab File: 9M88680.D  
Acq: 20 Oct 2018 00:07

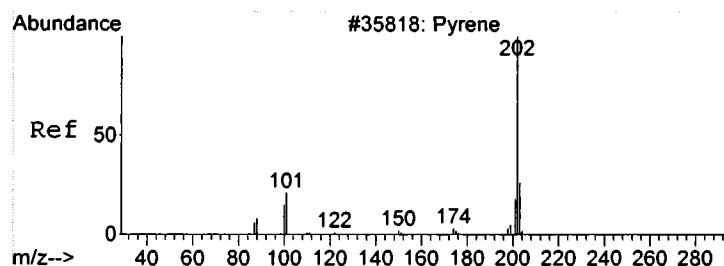
| Tgt Ion   | 178   | Resp  | 14831 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 178       | 100   |       |       |
| 179       | 14.0  | 0.0   | 55.5  |
| 176       | 21.2  | 0.0   | 59.3  |



#90  
Fluoranthene  
Concen: 7.50 ng  
RT: 11.054 min Scan# 3103  
Delta R.T. 0.006 min  
Lab File: 9M88680.D  
Acq: 20 Oct 2018 00:07

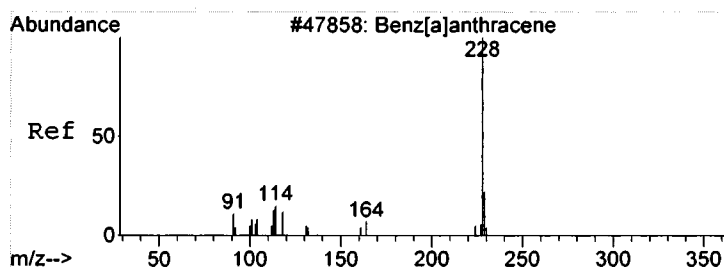
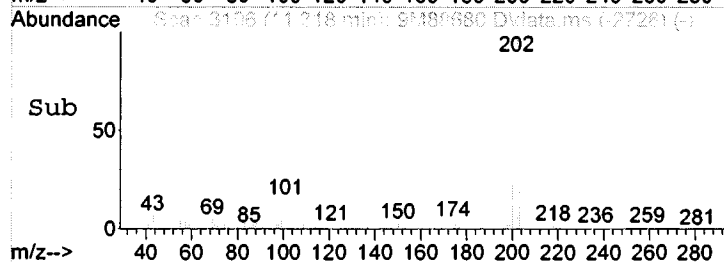
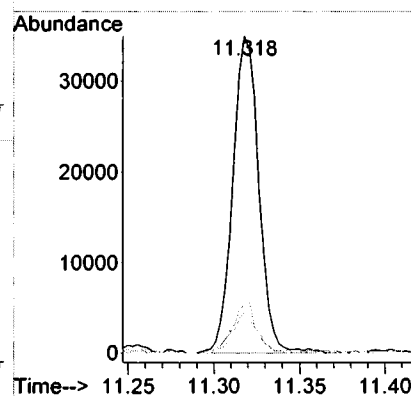
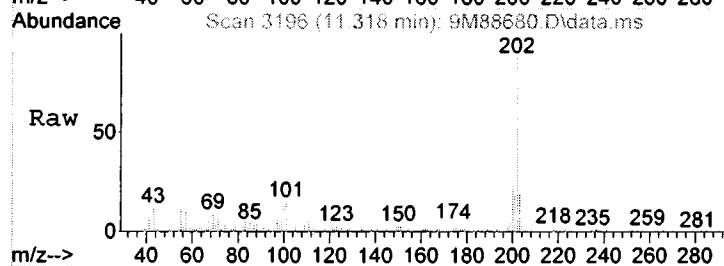
| Tgt Ion   | 202   | Resp  | 40120 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 13.3  | 0.0   | 57.6  |





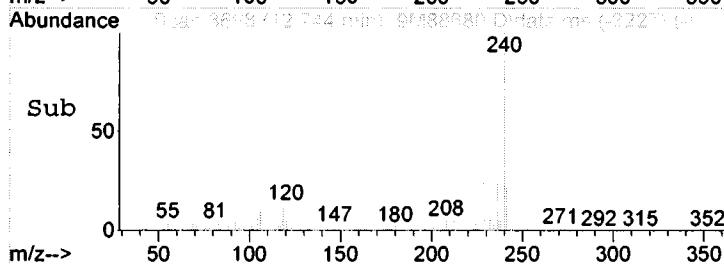
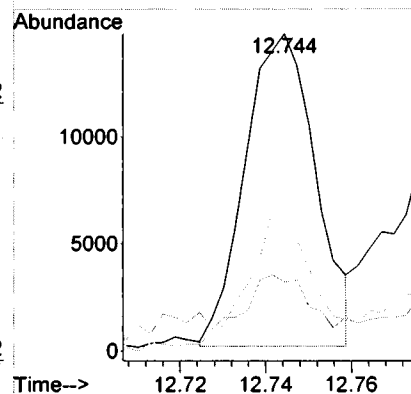
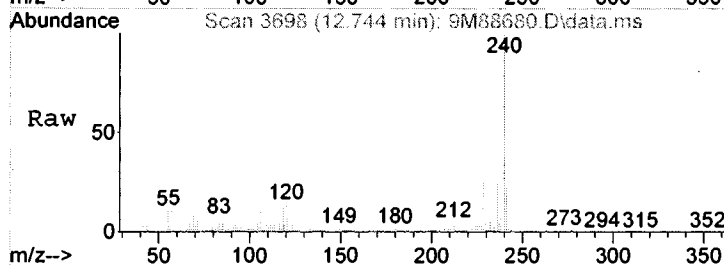
#92  
Pyrene  
Concen: 7.52 ng  
RT: 11.318 min Scan# 3196  
Delta R.T. 0.008 min  
Lab File: 9M88680.D  
Acq: 20 Oct 2018 00:07

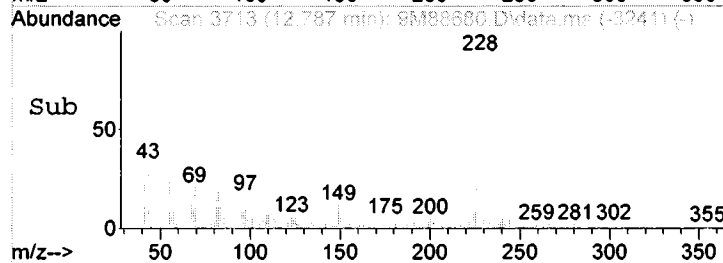
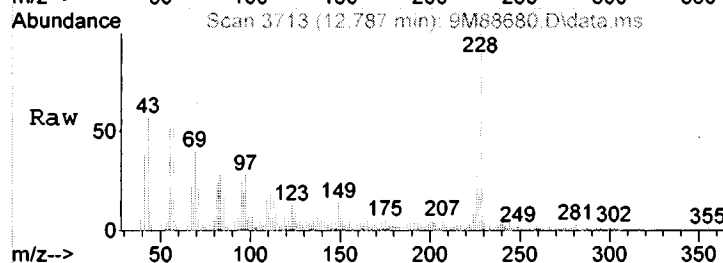
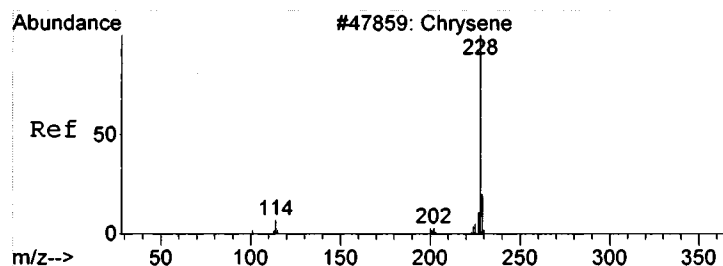
| Tgt Ion   | 202   | Resp  | 36837 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 15.2  | 0.0   | 62.2  |
| 100       | 13.1  | 0.0   | 57.8  |



#100  
Benzo[a]anthracene  
Concen: 3.44 ng m  
RT: 12.744 min Scan# 3698  
Delta R.T. 0.011 min  
Lab File: 9M88680.D  
Acq: 20 Oct 2018 00:07

| Tgt Ion   | 228   | Resp  | 16602 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 229       | 21.7  | 0.0   | 59.5  |
| 226       | 38.1  | 0.0   | 66.0  |





#101

Chrysene

Concen: 4.96 ng m

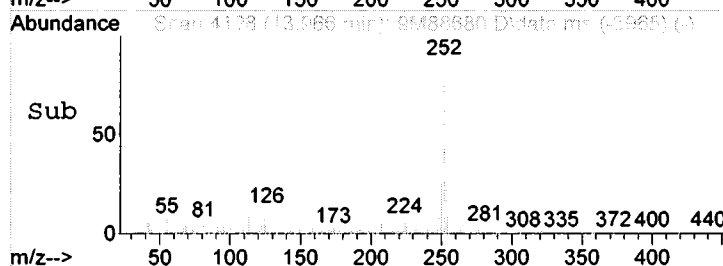
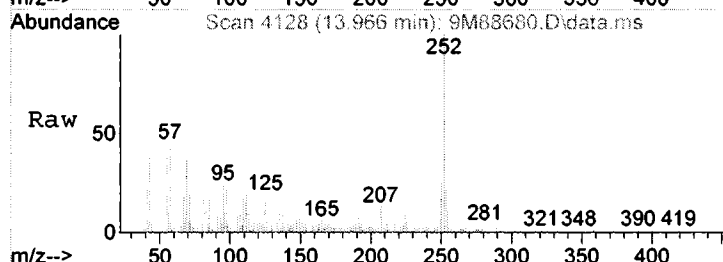
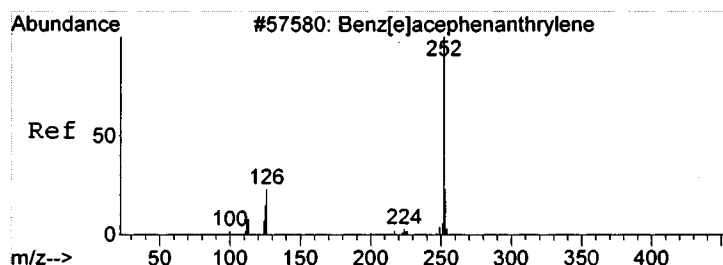
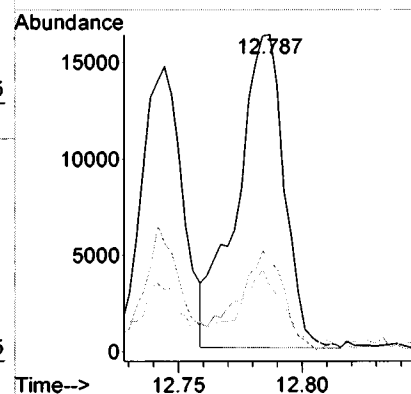
RT: 12.787 min Scan# 3713

Delta R.T. 0.012 min

Lab File: 9M88680.D

Acq: 20 Oct 2018 00:07

|              |             |
|--------------|-------------|
| Tgt Ion: 228 | Resp: 21497 |
| Ion Ratio    | Lower Upper |
| 228 100      |             |
| 226 28.3     | 9.5 49.5    |
| 229 20.3     | 0.0 60.2    |



#105

Benzo[b]fluoranthene

Concen: 6.77 ng m

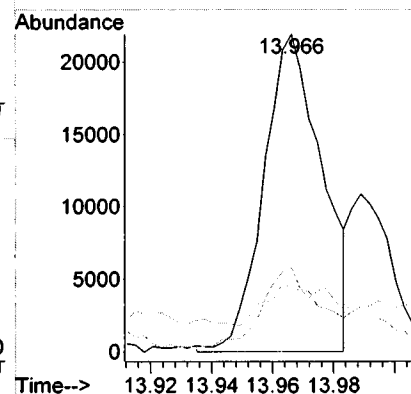
RT: 13.966 min Scan# 4128

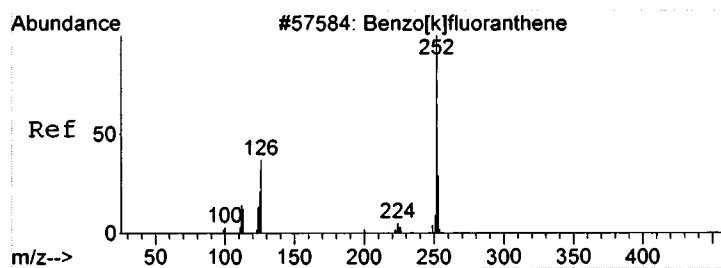
Delta R.T. 0.009 min

Lab File: 9M88680.D

Acq: 20 Oct 2018 00:07

|              |             |
|--------------|-------------|
| Tgt Ion: 252 | Resp: 29000 |
| Ion Ratio    | Lower Upper |
| 252 100      |             |
| 253 26.4     | 0.0 62.3    |
| 125 19.1     | 0.0 58.4    |





#106

Benzo[k]fluoranthene

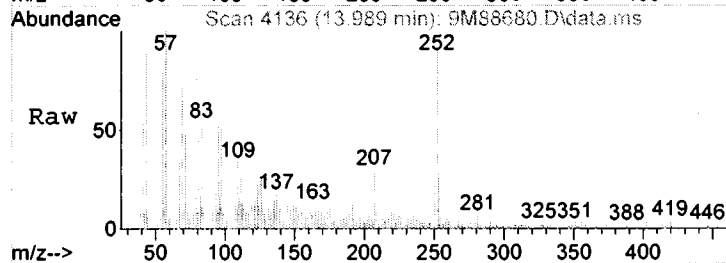
Concen: 2.23 ng m

RT: 13.989 min Scan# 4136

Delta R.T. 0.003 min

Lab File: 9M88680.D

Acq: 20 Oct 2018 00:07



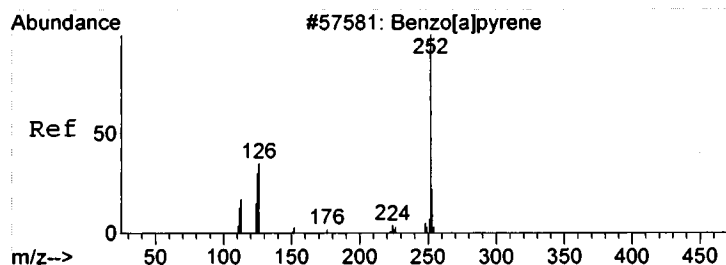
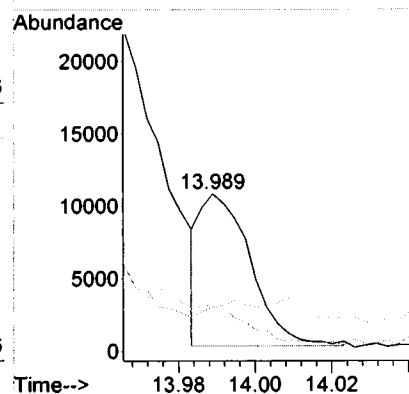
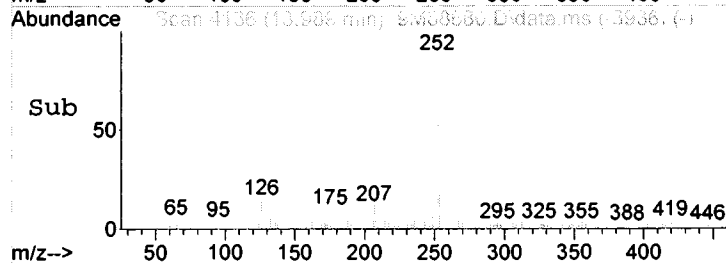
Tgt Ion: 252 Resp: 9739

Ion Ratio Lower Upper

252 100

253 28.3 0.0 52.2

125 29.4 0.0 48.9



#107

Benzo[a]pyrene

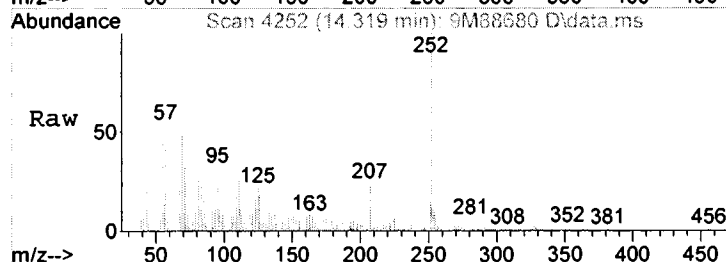
Concen: 4.60 ng

RT: 14.319 min Scan# 4252

Delta R.T. 0.007 min

Lab File: 9M88680.D

Acq: 20 Oct 2018 00:07



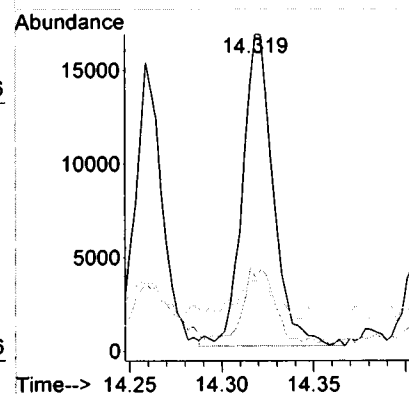
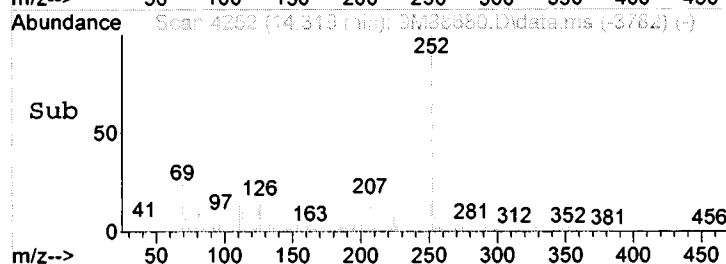
Tgt Ion: 252 Resp: 19396

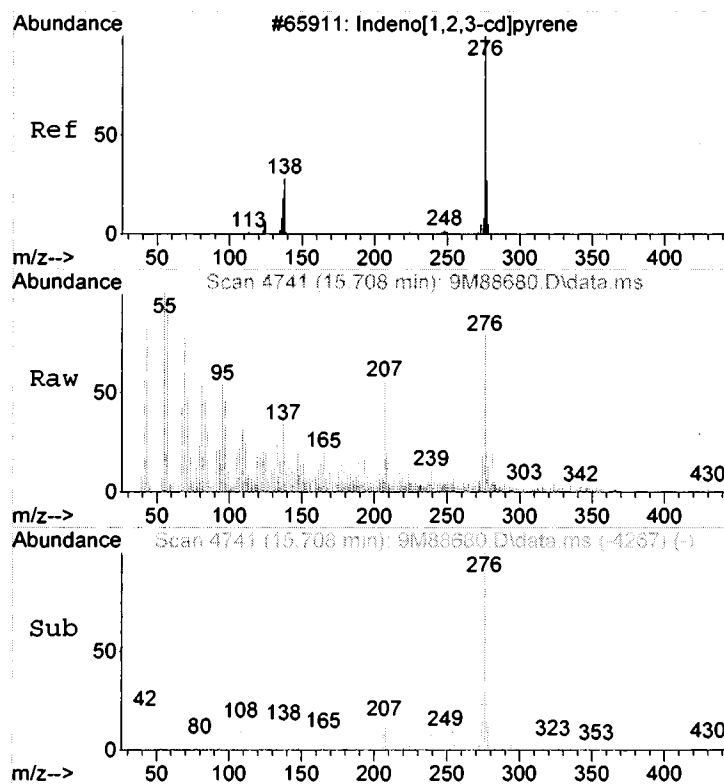
Ion Ratio Lower Upper

252 100

253 20.0 0.0 62.4

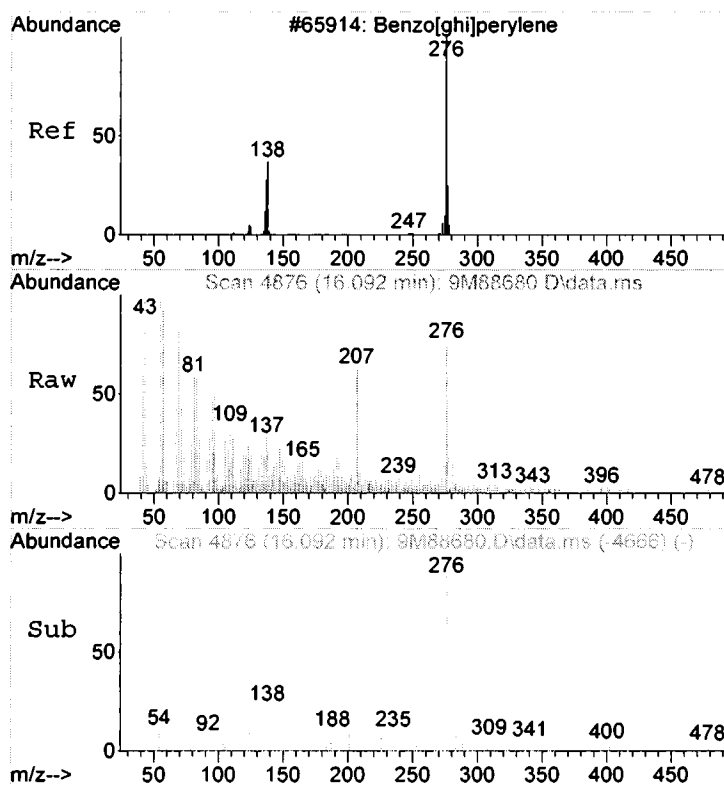
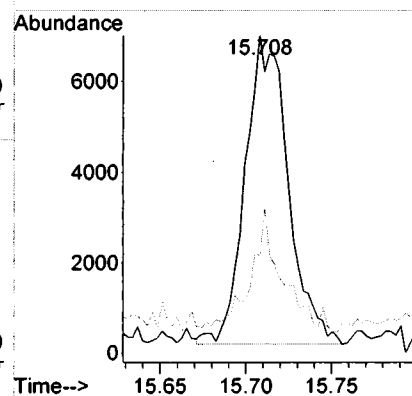
125 10.3 0.0 60.9





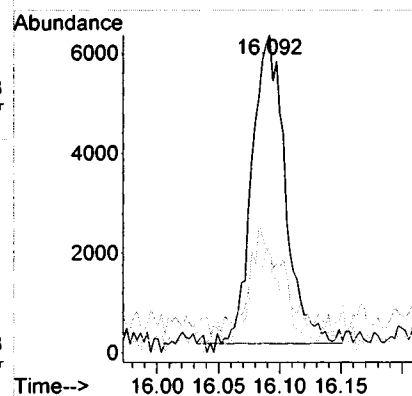
#108  
 Indeno[1,2,3-cd]pyrene  
 Concen: 2.58 ng  
 RT: 15.708 min Scan# 4741  
 Delta R.T. 0.020 min  
 Lab File: 9M88680.D  
 Acq: 20 Oct 2018 00:07

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 276     | 100   | 11871 |       |       |
| 138     | 22.9  | 0.0   | 78.9  |       |



#110  
 Benzo[g,h,i]perylene  
 Concen: 3.06 ng  
 RT: 16.092 min Scan# 4876  
 Delta R.T. 0.031 min  
 Lab File: 9M88680.D  
 Acq: 20 Oct 2018 00:07

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 276     | 100   | 11648 |       |       |
| 138     | 20.4  | 0.0   | 100.0 |       |
| 277     | 27.3  | 0.0   | 60.0  |       |



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-003(R)

Client Id: SW-2-102018

Data File: 7M95353.D

Analysis Date: 10/26/18 13:16

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 865ml

Final Vol: 0.25ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 0.58 | U    | 50-32-8  | Benzo[a]pyrene              | 0.58 | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 0.58 | U    | 205-99-2 | Benzo[b]fluoranthene        | 0.58 | U    |
| 123-91-1  | 1,4-Dioxane                | 0.14 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 0.58 | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.58 | U    | 207-08-9 | Benzo[k]fluoranthene        | 0.58 | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 0.58 | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 0.58 | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 0.58 | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.14 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.14 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 0.58 | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.14 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.58 | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 2.9  | U    | 85-68-7  | Butylbenzylphthalate        | 0.58 | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 0.58 | U    | 105-60-2 | Caprolactam                 | 0.58 | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 0.58 | U    | 86-74-8  | Carbazole                   | 0.58 | U    |
| 91-58-7   | 2-Chloronaphthalene        | 0.58 | U    | 218-01-9 | Chrysene                    | 0.58 | U    |
| 95-57-8   | 2-Chlorophenol             | 0.58 | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 0.58 | U    |
| 91-57-6   | 2-Methylnaphthalene        | 0.58 | U    | 132-64-9 | Dibenzofuran                | 0.14 | U    |
| 95-48-7   | 2-Methylphenol             | 0.14 | U    | 84-66-2  | Diethylphthalate            | 0.58 | U    |
| 88-74-4   | 2-Nitroaniline             | 0.58 | U    | 131-11-3 | Dimethylphthalate           | 0.58 | U    |
| 88-75-5   | 2-Nitrophenol              | 0.58 | U    | 84-74-2  | Di-n-butylphthalate         | 0.14 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.14 | U    | 117-84-0 | Di-n-octylphthalate         | 0.58 | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 0.58 | U    | 206-44-0 | Fluoranthene                | 0.58 | U    |
| 99-09-2   | 3-Nitroaniline             | 0.58 | U    | 86-73-7  | Fluorene                    | 0.58 | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 2.9  | U    | 118-74-1 | Hexachlorobenzene           | 0.58 | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 0.58 | U    | 87-68-3  | Hexachlorobutadiene         | 0.58 | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 0.58 | U    | 77-47-4  | Hexachlorocyclopentadiene   | 0.58 | U    |
| 106-47-8  | 4-Chloroaniline            | 0.14 | U    | 67-72-1  | Hexachloroethane            | 0.58 | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 0.58 | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.58 | U    |
| 100-01-6  | 4-Nitroaniline             | 0.58 | U    | 78-59-1  | Isophorone                  | 0.58 | U    |
| 100-02-7  | 4-Nitrophenol              | 0.58 | U    | 91-20-3  | Naphthalene                 | 0.14 | U    |
| 83-32-9   | Acenaphthene               | 0.58 | U    | 98-95-3  | Nitrobenzene                | 0.58 | U    |
| 208-96-8  | Acenaphthylene             | 0.58 | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.14 | U    |
| 98-86-2   | Acetophenone               | 0.58 | U    | 86-30-6  | n-Nitrosodiphenylamine      | 0.58 | U    |
| 120-12-7  | Anthracene                 | 0.58 | U    | 87-86-5  | Pentachlorophenol           | 2.9  | U    |
| 1912-24-9 | Atrazine                   | 0.58 | U    | 85-01-8  | Phenanthrene                | 0.58 | U    |
| 100-52-7  | Benzaldehyde               | 0.58 | U    | 108-95-2 | Phenol                      | 0.58 | U    |
| 56-55-3   | Benzo[a]anthracene         | 0.58 | U    | 129-00-0 | Pyrene                      | 0.58 | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.



SampleID : AD07161-003(R)  
Data File: 7M95353.D  
Acq On : 10/26/18 13:16

Operator : AH/JB  
Sam Mult : 1 Vial# : 13  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/26/18 15:18  
Qt Upd On: 10/09/18 08:53

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.510  | 96   | 59533    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.742  | 152  | 102400   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.752  | 136  | 378587   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.162  | 164  | 212623   | 40.00 | ng    | -0.01    |
| 77) Phenanthrene-d10       | 9.604  | 188  | 369218   | 40.00 | ng    | -0.01    |
| 91) Chrysene-d12           | 12.633 | 240  | 337633   | 40.00 | ng    | -0.02    |
| 103) Perylene-d12          | 14.236 | 264  | 283040   | 40.00 | ng    | -0.04    |

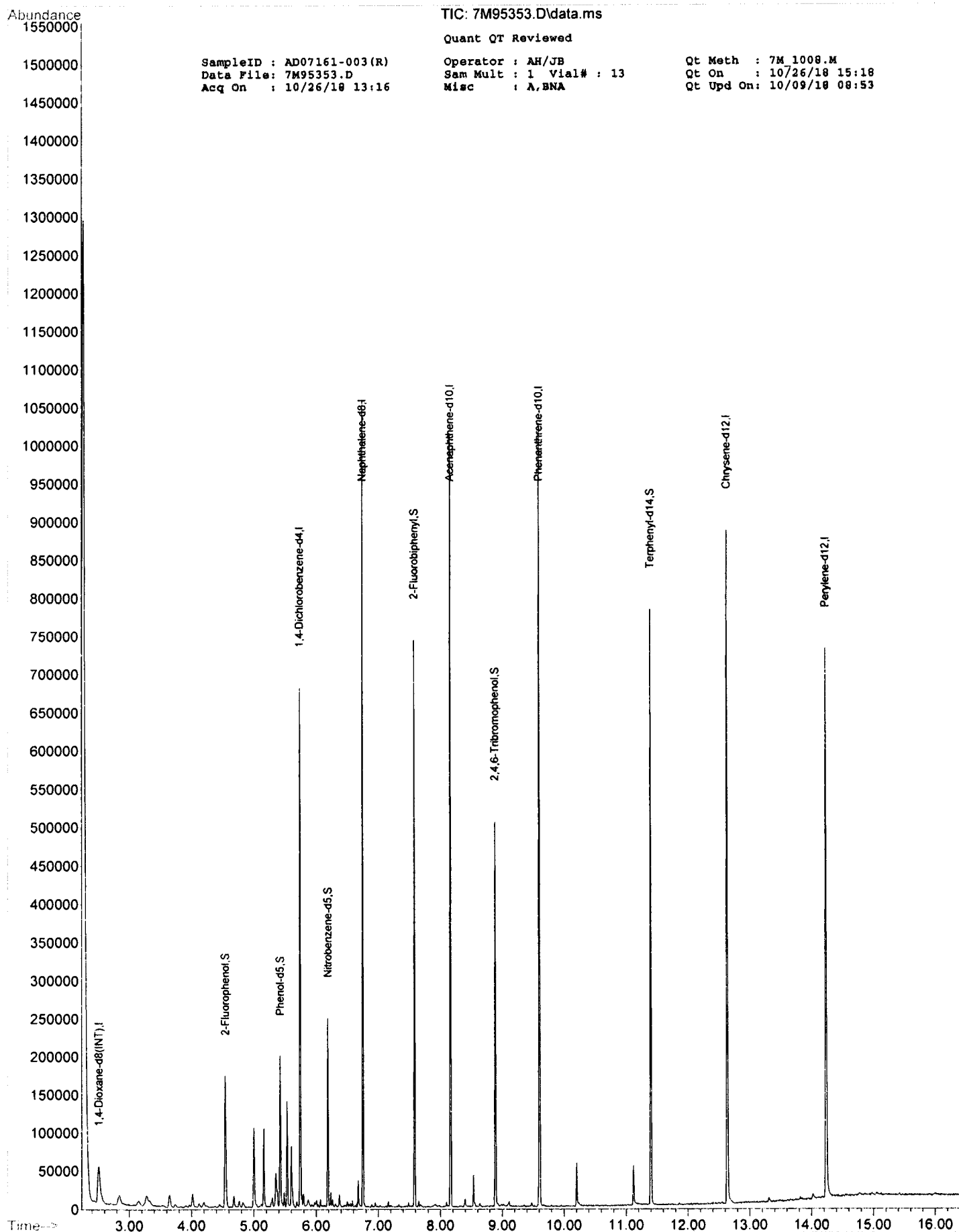
## System Monitoring Compounds

|                          |        |     |          |       |        |       |
|--------------------------|--------|-----|----------|-------|--------|-------|
| 11) 2-Fluorophenol       | 4.540  | 112 | 71242    | 22.31 | ng     | 0.00  |
| Spiked Amount 100.000    |        |     | Recovery | =     | 22.31% |       |
| 16) Phenol-d5            | 5.421  | 99  | 66852    | 14.78 | ng     | -0.01 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 14.78% |       |
| 32) Nitrobenzene-d5      | 6.191  | 128 | 36526    | 30.74 | ng     | 0.00  |
| Spiked Amount 50.000     |        |     | Recovery | =     | 61.48% |       |
| 55) 2-Fluorobiphenyl     | 7.585  | 172 | 193993   | 28.74 | ng     | 0.00  |
| Spiked Amount 50.000     |        |     | Recovery | =     | 57.48% |       |
| 80) 2,4,6-Tribromophenol | 8.888  | 330 | 49846    | 56.77 | ng     | -0.01 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 56.77% |       |
| 94) Terphenyl-d14        | 11.399 | 244 | 236376   | 40.80 | ng     | -0.01 |
| Spiked Amount 50.000     |        |     | Recovery | =     | 81.60% |       |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-004

Client Id: SD-2-102018

Data File: 9M88681.D

Analysis Date: 10/20/18 00:31

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 16

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.21  | U    | 50-32-8   | Benzo[a]pyrene             | 0.21  | 0.36 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.21  | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.21  | 0.58 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.21  | 0.30 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.21  | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.21  | U    | 95-95-4   | 2,4,5-Trichlorophenol      | 0.21  | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.21  | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.21  | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.052 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.052 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.21  | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.052 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.21  | U    | 51-28-5   | 2,4-Dinitrophenol          | 1.0   | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.21  | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.21  | U    |
| 105-60-2 | Caprolactam                 | 0.21  | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.21  | U    |
| 86-74-8  | Carbazole                   | 0.21  | U    | 91-58-7   | 2-Chloronaphthalene        | 0.21  | U    |
| 218-01-9 | Chrysene                    | 0.21  | 0.41 | 95-57-8   | 2-Chlorophenol             | 0.21  | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.21  | U    | 91-57-6   | 2-Methylnaphthalene        | 0.21  | U    |
| 132-64-9 | Dibenzofuran                | 0.052 | U    | 95-48-7   | 2-Methylphenol             | 0.052 | U    |
| 84-66-2  | Diethylphthalate            | 0.21  | U    | 88-74-4   | 2-Nitroaniline             | 0.21  | U    |
| 131-11-3 | Dimethylphthalate           | 0.21  | U    | 88-75-5   | 2-Nitrophenol              | 0.21  | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.052 | U    | 106-44-5  | 3&4-Methylphenol           | 0.052 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.21  | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.21  | U    |
| 206-44-0 | Fluoranthene                | 0.21  | 0.50 | 99-09-2   | 3-Nitroaniline             | 0.21  | U    |
| 86-73-7  | Fluorene                    | 0.21  | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 1.0   | U    |
| 118-74-1 | Hexachlorobenzene           | 0.21  | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.21  | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.21  | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.21  | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.21  | U    | 106-47-8  | 4-Chloroaniline            | 0.052 | U    |
| 67-72-1  | Hexachloroethane            | 0.21  | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.21  | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.21  | 0.22 | 100-01-6  | 4-Nitroaniline             | 0.21  | U    |
| 78-59-1  | Isophorone                  | 0.21  | U    | 100-02-7  | 4-Nitrophenol              | 0.21  | U    |
| 91-20-3  | Naphthalene                 | 0.052 | U    | 83-32-9   | Acenaphthene               | 0.21  | U    |
| 98-95-3  | Nitrobenzene                | 0.21  | U    | 208-96-8  | Acenaphthylene             | 0.21  | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.052 | U    | 98-86-2   | Acetophenone               | 0.21  | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.21  | U    | 120-12-7  | Anthracene                 | 0.21  | U    |
| 87-86-5  | Pentachlorophenol           | 1.0   | U    | 1912-24-9 | Atrazine                   | 0.21  | U    |
| 85-01-8  | Phenanthrene                | 0.21  | U    | 100-52-7  | Benzaldehyde               | 0.21  | U    |
| 108-95-2 | Phenol                      | 0.21  | U    | 56-55-3   | Benzo[a]anthracene         | 0.21  | 0.29 |
| 129-00-0 | Pyrene                      | 0.21  | 0.56 |           |                            |       |      |

Worksheet #: 489030

Total Target Concentration 3.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

SampleID : AD07161-004  
 Data File: 9M88681.D  
 Acq On : 10/20/18 00:31

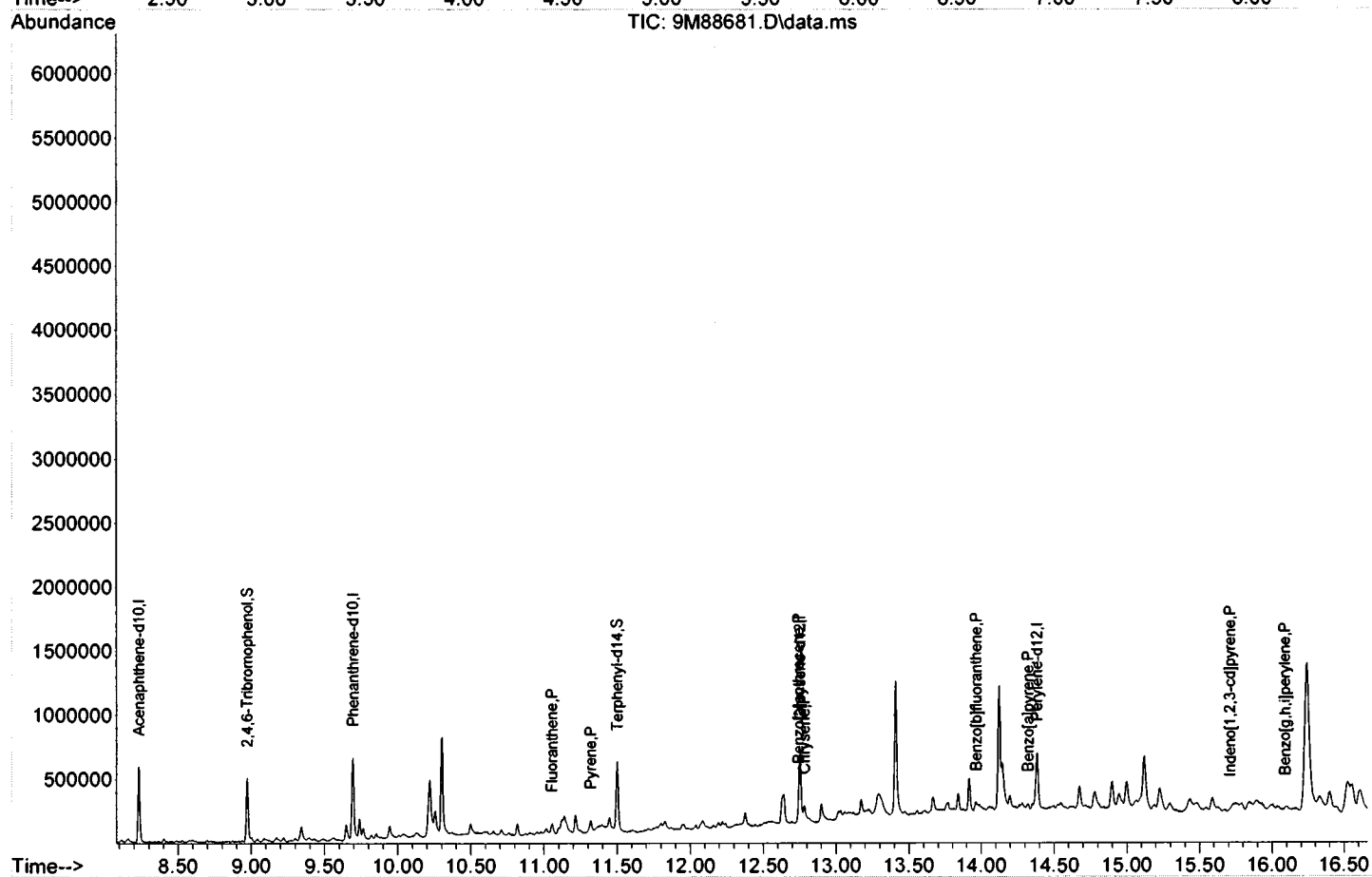
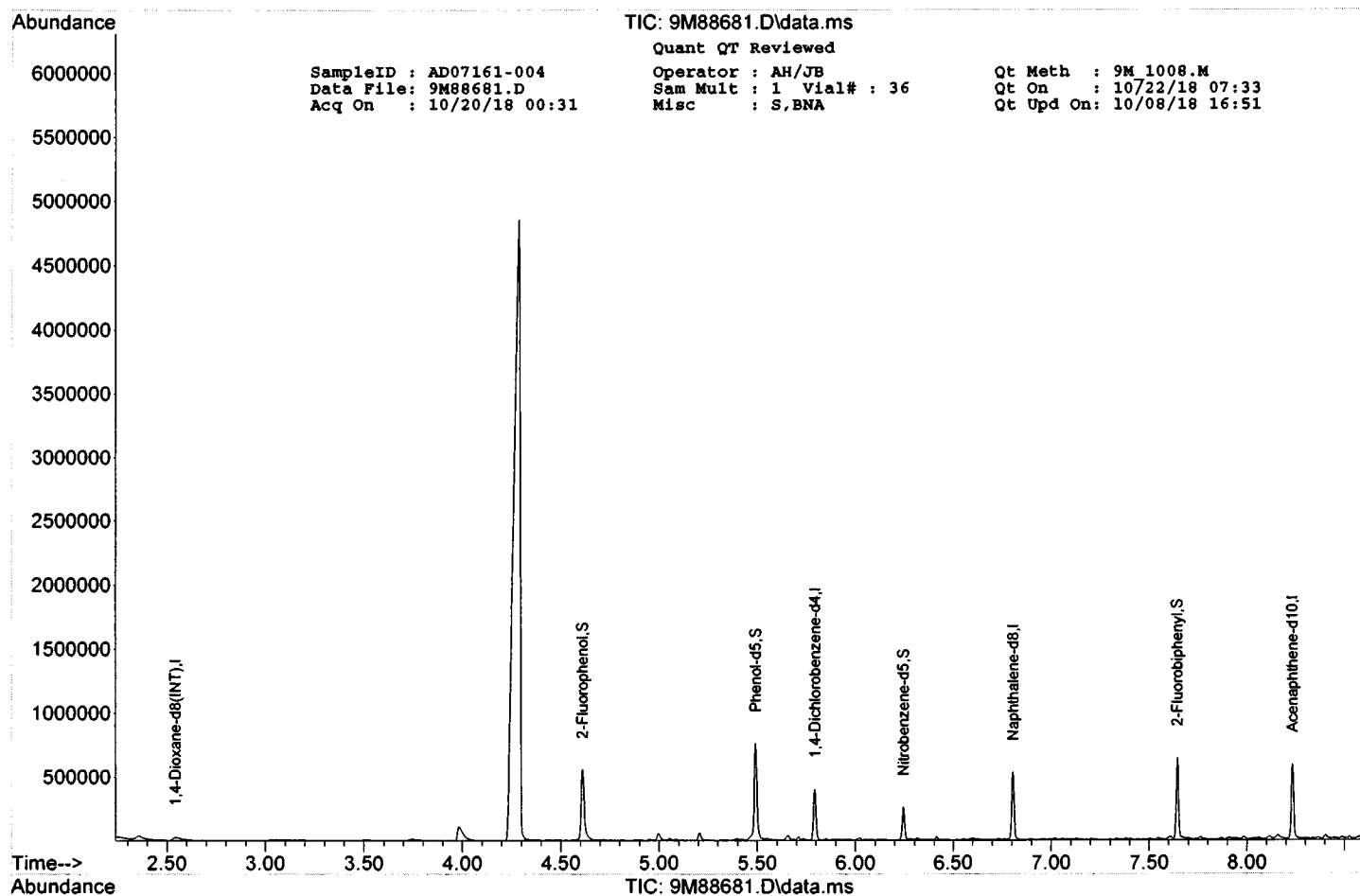
Operator : AH/JB  
 Sam Mult : 1 Vial# : 36  
 Misc : S,BNA

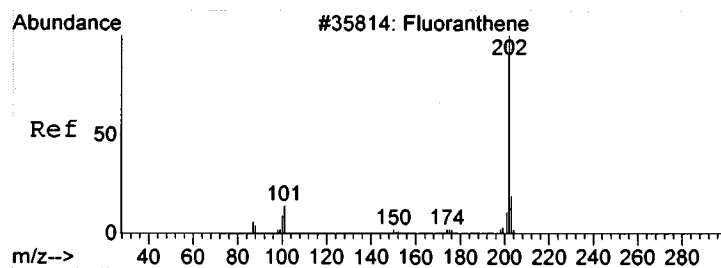
Qt Meth : 9M\_1008.M  
 Qt On : 10/22/18 07:33  
 Qt Upd On: 10/08/18 16:51

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-1918\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards          |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.541  | 96   | 25633      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.794  | 152  | 54874      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.806  | 136  | 203338     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.232  | 164  | 120810     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.696  | 188  | 201432     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12            | 12.756 | 240  | 209387     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12           | 14.384 | 264  | 178080     | 40.00   | ng    | 0.01     |
| System Monitoring Compounds |        |      |            |         |       |          |
| 11) 2-Fluorophenol          | 4.609  | 112  | 156106     | 103.82  | ng    | 0.02     |
| Spiked Amount 100.000       |        |      | Recovery = | 103.82% |       |          |
| 16) Phenol-d5               | 5.490  | 99   | 226819     | 104.81  | ng    | 0.01     |
| Spiked Amount 100.000       |        |      | Recovery = | 104.81% |       |          |
| 32) Nitrobenzene-d5         | 6.243  | 128  | 28006      | 43.25   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 86.50%  |       |          |
| 55) 2-Fluorobiphenyl        | 7.644  | 172  | 168109     | 43.12   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 86.24%  |       |          |
| 80) 2,4,6-Tribromophenol    | 8.974  | 330  | 48251      | 89.01   | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 89.01%  |       |          |
| 94) Terphenyl-d14           | 11.503 | 244  | 158930     | 44.82   | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 89.64%  |       |          |
| Target Compounds            |        |      |            |         |       |          |
| 90) Fluoranthene            | 11.054 | 202  | 30366      | 4.8379  | ng    | 92       |
| 92) Pyrene                  | 11.318 | 202  | 31517      | 5.3948  | ng    | 84       |
| 100) Benzo[a]anthracene     | 12.744 | 228  | 15865      | 2.7567  | ng    | 87       |
| 101) Chrysene               | 12.784 | 228  | 20173m     | 3.9065  | ng    |          |
| 105) Benzo[b]fluoranthene   | 13.969 | 252  | 28130m     | 5.5952  | ng    |          |
| 107) Benzo[a]pyrene         | 14.321 | 252  | 16957      | 3.4260  | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene | 15.711 | 276  | 11447      | 2.1202  | ng    | 94       |
| 110) Benzo[g,h,i]perylene   | 16.089 | 276  | 13021      | 2.9149  | ng    | 65       |

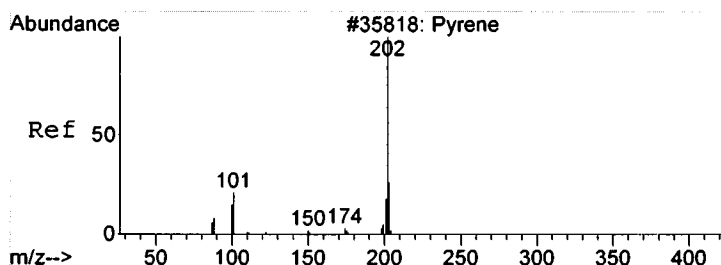
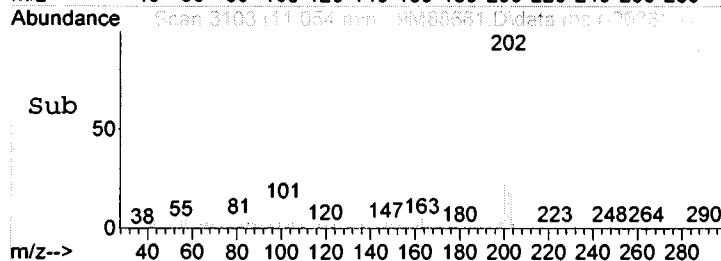
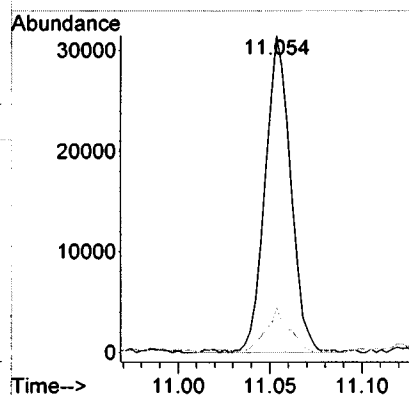
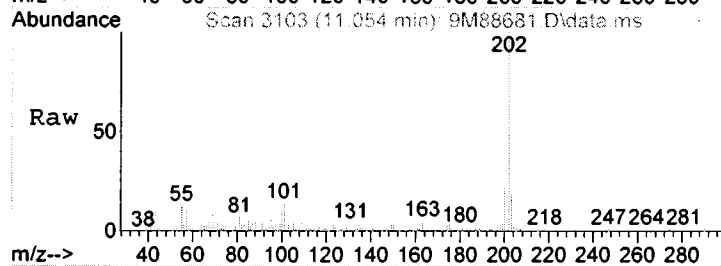
(#) = qualifier out of range (m) = manual integration (+) = signals summed





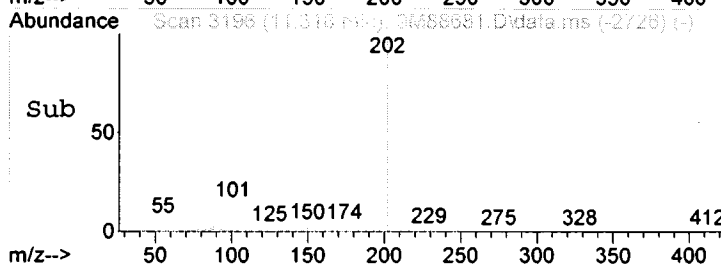
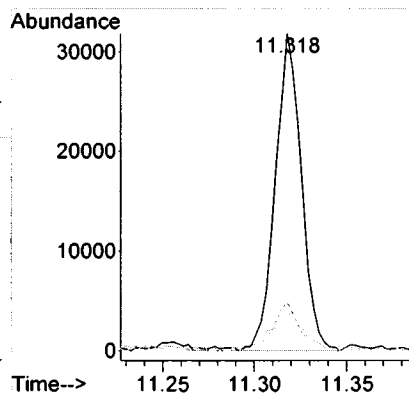
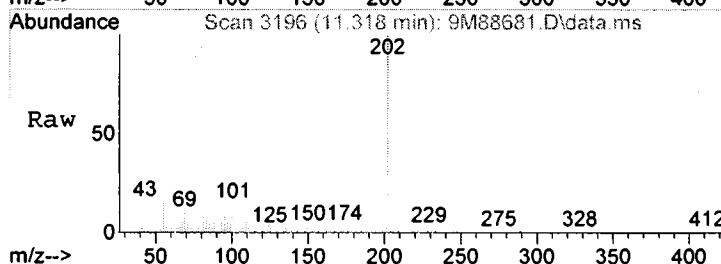
#90  
Fluoranthene  
Concen: 4.84 ng  
RT: 11.054 min Scan# 3103  
Delta R.T. 0.006 min  
Lab File: 9M88681.D  
Acq: 20 Oct 2018 00:31

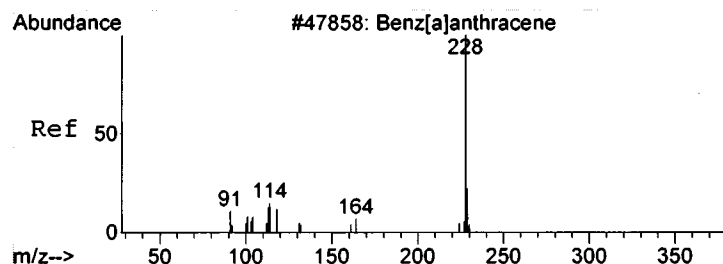
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 202  | Resp: | 30366 |
| Ion Ratio |      | Lower | Upper |
| 202       | 100  |       |       |
| 101       | 14.1 | 0.0   | 57.6  |



#92  
Pyrene  
Concen: 5.39 ng  
RT: 11.318 min Scan# 3196  
Delta R.T. 0.008 min  
Lab File: 9M88681.D  
Acq: 20 Oct 2018 00:31

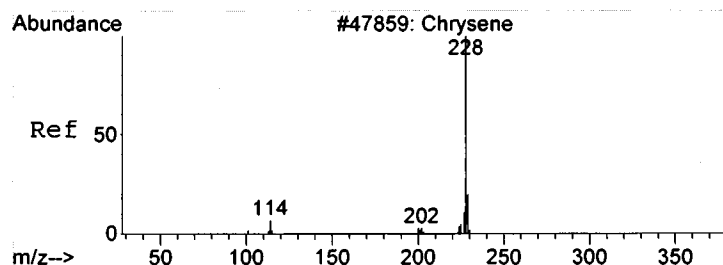
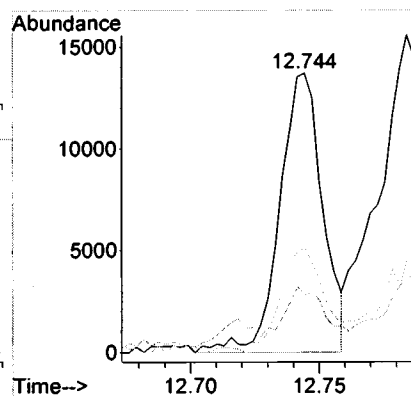
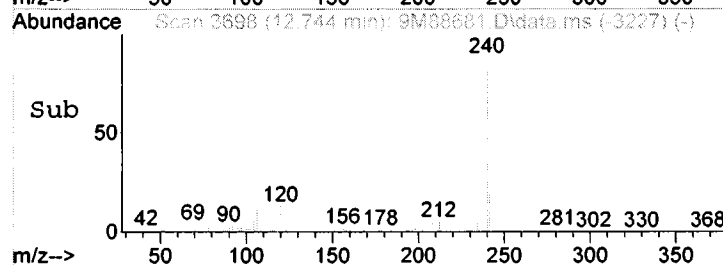
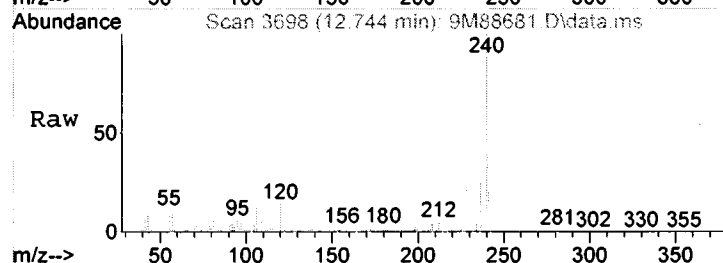
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 202  | Resp: | 31517 |
| Ion Ratio |      | Lower | Upper |
| 202       | 100  |       |       |
| 101       | 13.7 | 0.0   | 62.2  |
| 100       | 11.6 | 0.0   | 57.8  |





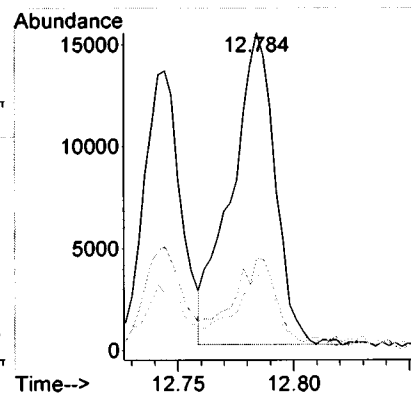
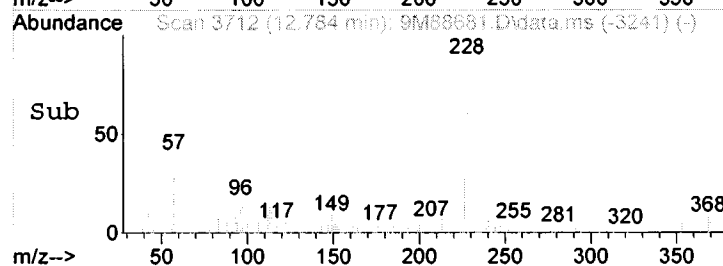
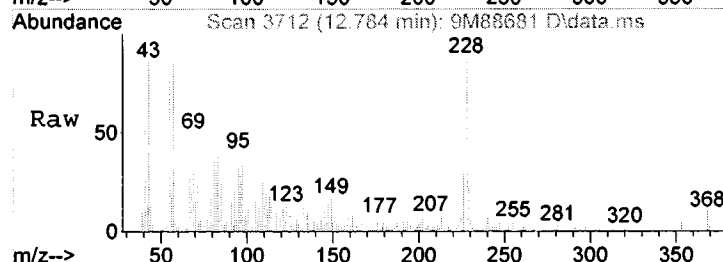
#100  
Benzo[a]anthracene  
Concen: 2.76 ng  
RT: 12.744 min Scan# 3698  
Delta R.T. 0.011 min  
Lab File: 9M88681.D  
Acq: 20 Oct 2018 00:31

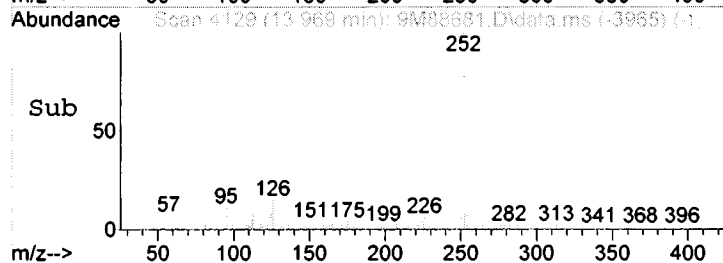
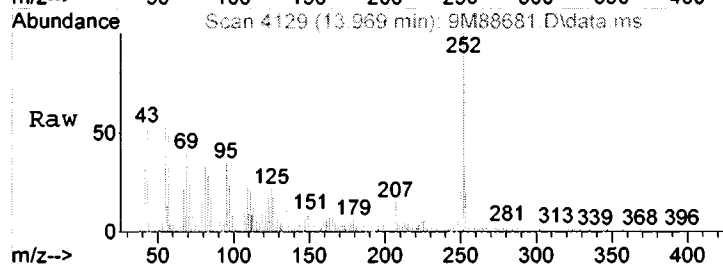
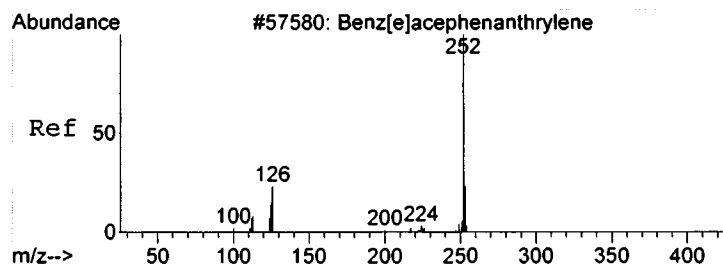
| Tgt Ion   | 228   | Resp  | 15865 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 229       | 16.8  | 0.0   | 59.5  |
| 226       | 35.4  | 0.0   | 66.0  |



#101  
Chrysene  
Concen: 3.91 ng m  
RT: 12.784 min Scan# 3712  
Delta R.T. 0.009 min  
Lab File: 9M88681.D  
Acq: 20 Oct 2018 00:31

| Tgt Ion   | 228   | Resp  | 20173 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 29.1  | 9.5   | 49.5  |
| 229       | 23.4  | 0.0   | 60.2  |





#105

Benzo[b]fluoranthene

Concen: 5.60 ng m

RT: 13.969 min Scan# 4129

Delta R.T. 0.012 min

Lab File: 9M88681.D

Acq: 20 Oct 2018 00:31

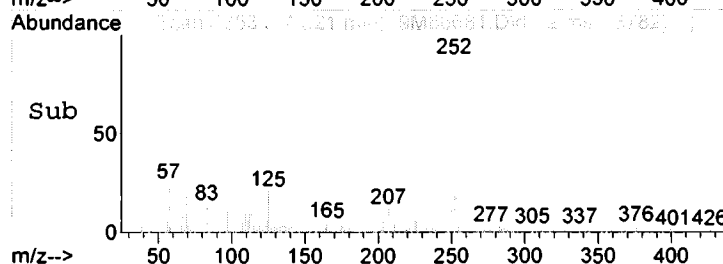
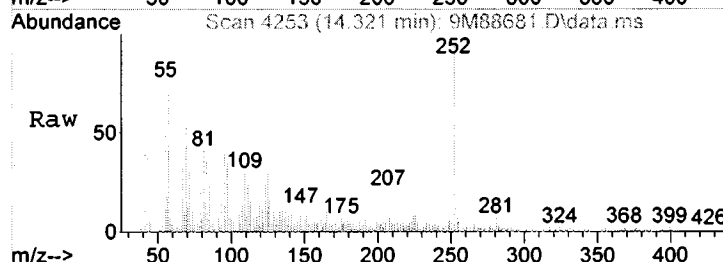
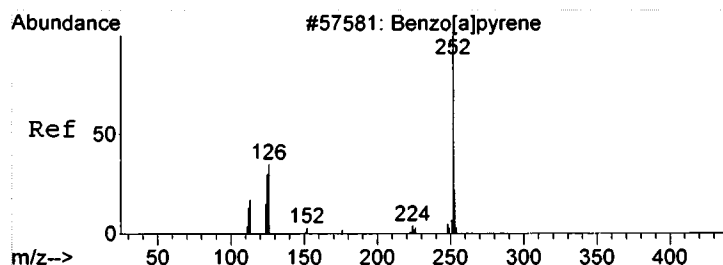
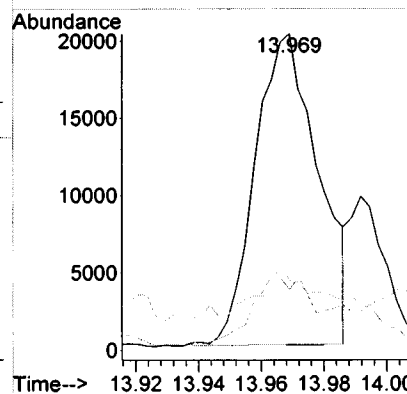
Tgt Ion: 252 Resp: 28130

Ion Ratio Lower Upper

252 100

253 19.2 0.0 62.3

125 21.9 0.0 58.4



#107

Benzo[a]pyrene

Concen: 3.43 ng

RT: 14.321 min Scan# 4253

Delta R.T. 0.009 min

Lab File: 9M88681.D

Acq: 20 Oct 2018 00:31

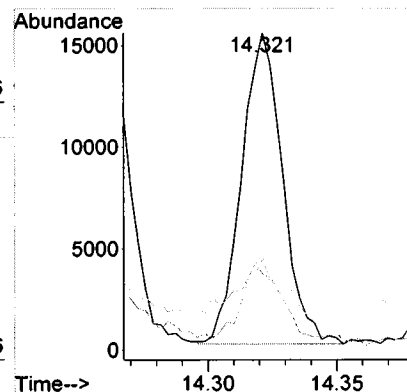
Tgt Ion: 252 Resp: 16957

Ion Ratio Lower Upper

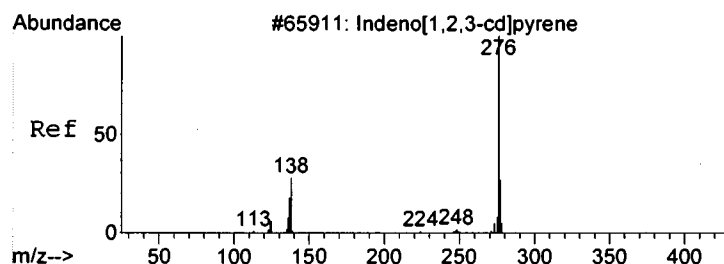
252 100

253 21.1 0.0 62.4

125 15.4 0.0 60.9

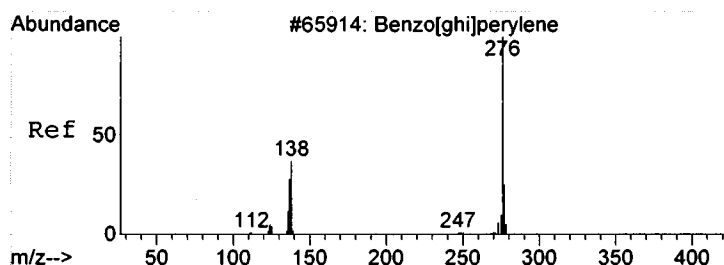
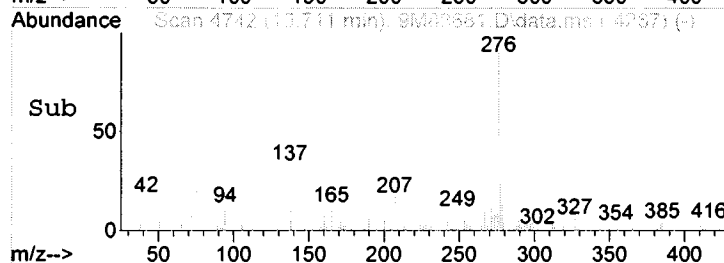
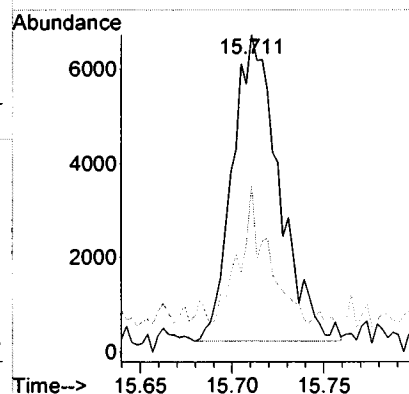
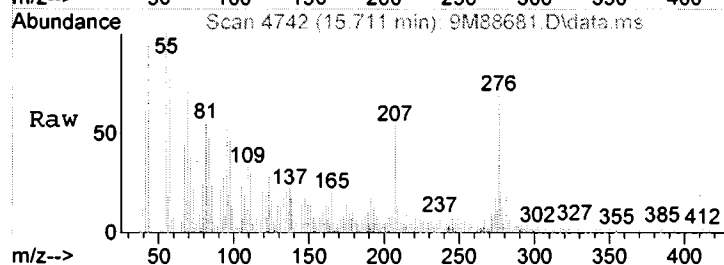






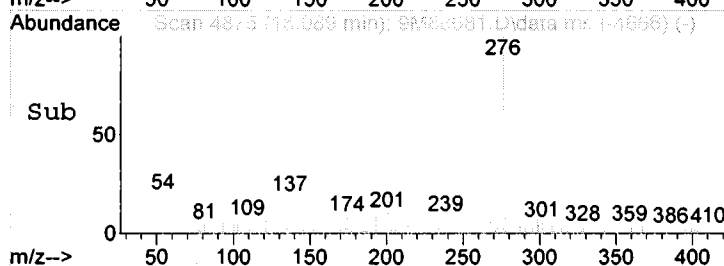
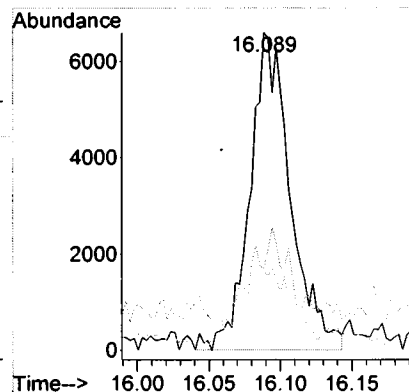
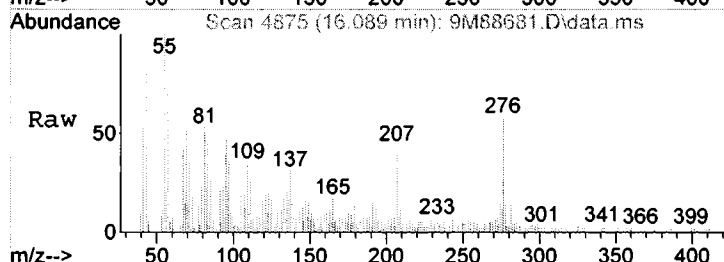
#108  
 Indeno[1,2,3-cd]pyrene  
 Concen: 2.12 ng  
 RT: 15.711 min Scan# 4742  
 Delta R.T. 0.023 min  
 Lab File: 9M88681.D  
 Acq: 20 Oct 2018 00:31

Tgt Ion: 276 Resp: 11447  
 Ion Ratio Lower Upper  
 276 100  
 138 42.6 0.0 78.9



#110  
 Benzo[g,h,i]perylene  
 Concen: 2.91 ng  
 RT: 16.089 min Scan# 4875  
 Delta R.T. 0.028 min  
 Lab File: 9M88681.D  
 Acq: 20 Oct 2018 00:31

Tgt Ion: 276 Resp: 13021  
 Ion Ratio Lower Upper  
 276 100  
 138 22.9 0.0 100.0  
 277 14.9 0.0 60.0



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-005(R)

Client Id: SW-3-102018

Data File: 7M95354.D

Analysis Date: 10/26/18 13:38

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 865ml

Final Vol: 0.25ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 0.58 | U    | 50-32-8  | Benzo[a]pyrene              | 0.58 | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 0.58 | U    | 205-99-2 | Benzo[b]fluoranthene        | 0.58 | U    |
| 123-91-1  | 1,4-Dioxane                | 0.14 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 0.58 | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.58 | U    | 207-08-9 | Benzo[k]fluoranthene        | 0.58 | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 0.58 | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 0.58 | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 0.58 | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.14 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.14 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 0.58 | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.14 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.58 | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 2.9  | U    | 85-68-7  | Butylbenzylphthalate        | 0.58 | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 0.58 | U    | 105-60-2 | Caprolactam                 | 0.58 | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 0.58 | U    | 86-74-8  | Carbazole                   | 0.58 | U    |
| 91-58-7   | 2-Chloronaphthalene        | 0.58 | U    | 218-01-9 | Chrysene                    | 0.58 | U    |
| 95-57-8   | 2-Chlorophenol             | 0.58 | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 0.58 | U    |
| 91-57-6   | 2-Methylnaphthalene        | 0.58 | U    | 132-64-9 | Dibenzofuran                | 0.14 | U    |
| 95-48-7   | 2-Methylphenol             | 0.14 | U    | 84-66-2  | Diethylphthalate            | 0.58 | U    |
| 88-74-4   | 2-Nitroaniline             | 0.58 | U    | 131-11-3 | Dimethylphthalate           | 0.58 | U    |
| 88-75-5   | 2-Nitrophenol              | 0.58 | U    | 84-74-2  | Di-n-butylphthalate         | 0.14 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.14 | U    | 117-84-0 | Di-n-octylphthalate         | 0.58 | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 0.58 | U    | 206-44-0 | Fluoranthene                | 0.58 | U    |
| 99-09-2   | 3-Nitroaniline             | 0.58 | U    | 86-73-7  | Fluorene                    | 0.58 | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 2.9  | U    | 118-74-1 | Hexachlorobenzene           | 0.58 | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 0.58 | U    | 87-68-3  | Hexachlorobutadiene         | 0.58 | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 0.58 | U    | 77-47-4  | Hexachlorocyclopentadiene   | 0.58 | U    |
| 106-47-8  | 4-Chloroaniline            | 0.14 | U    | 67-72-1  | Hexachloroethane            | 0.58 | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 0.58 | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.58 | U    |
| 100-01-6  | 4-Nitroaniline             | 0.58 | U    | 78-59-1  | Isophorone                  | 0.58 | U    |
| 100-02-7  | 4-Nitrophenol              | 0.58 | U    | 91-20-3  | Naphthalene                 | 0.14 | U    |
| 83-32-9   | Acenaphthene               | 0.58 | U    | 98-95-3  | Nitrobenzene                | 0.58 | U    |
| 208-96-8  | Acenaphthylene             | 0.58 | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.14 | U    |
| 98-86-2   | Acetophenone               | 0.58 | U    | 86-30-6  | n-Nitrosodiphenylamine      | 0.58 | U    |
| 120-12-7  | Anthracene                 | 0.58 | U    | 87-86-5  | Pentachlorophenol           | 2.9  | U    |
| 1912-24-9 | Atrazine                   | 0.58 | U    | 85-01-8  | Phenanthrene                | 0.58 | U    |
| 100-52-7  | Benzaldehyde               | 0.58 | U    | 108-95-2 | Phenol                      | 0.58 | U    |
| 56-55-3   | Benzo[a]anthracene         | 0.58 | U    | 129-00-0 | Pyrene                      | 0.58 | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

SampleID : AD07161-005(R)  
Data File: 7M95354.D  
Acq On : 10/26/18 13:38

Operator : AH/JB  
Sam Mult : 1 Vial# : 14  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/26/18 15:19  
Qt Upd On: 10/09/18 08:53

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.515  | 96   | 67471    | 40.00 | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4 | 5.742  | 152  | 113193   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.751  | 136  | 410544   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.167  | 164  | 227004   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.604  | 188  | 384063   | 40.00 | ng    | -0.01    |
| 91) Chrysene-d12           | 12.633 | 240  | 365524   | 40.00 | ng    | -0.02    |
| 103) Perylene-d12          | 14.241 | 264  | 316657   | 40.00 | ng    | -0.03    |

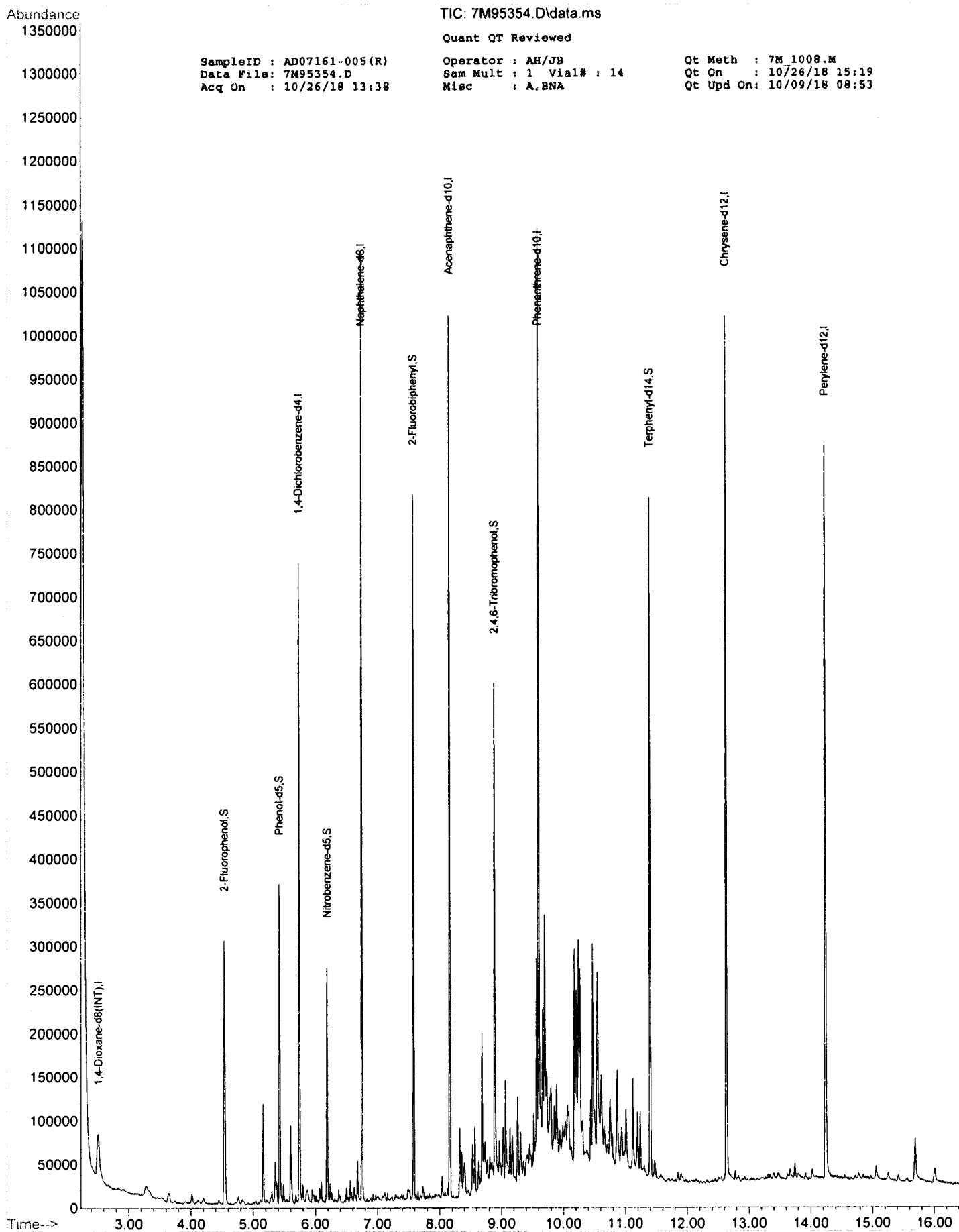
## System Monitoring Compounds

|                          |        |     |          |       |        |       |
|--------------------------|--------|-----|----------|-------|--------|-------|
| 11) 2-Fluorophenol       | 4.540  | 112 | 126409   | 34.93 | ng     | 0.00  |
| Spiked Amount 100.000    |        |     | Recovery | =     | 34.93% |       |
| 16) Phenol-d5            | 5.421  | 99  | 132270   | 25.80 | ng     | -0.01 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 25.80% |       |
| 32) Nitrobenzene-d5      | 6.191  | 128 | 36755    | 28.52 | ng     | 0.00  |
| Spiked Amount 50.000     |        |     | Recovery | =     | 57.04% |       |
| 55) 2-Fluorobiphenyl     | 7.585  | 172 | 217826   | 30.22 | ng     | 0.00  |
| Spiked Amount 50.000     |        |     | Recovery | =     | 60.44% |       |
| 80) 2,4,6-Tribromophenol | 8.894  | 330 | 58500    | 63.63 | ng     | 0.00  |
| Spiked Amount 100.000    |        |     | Recovery | =     | 63.63% |       |
| 94) Terphenyl-d14        | 11.399 | 244 | 241697   | 38.54 | ng     | -0.01 |
| Spiked Amount 50.000     |        |     | Recovery | =     | 77.08% |       |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-006

Client Id: SD-3-102018

Data File: 9M88682.D

Analysis Date: 10/20/18 00:54

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 55

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc  | Cas #     | Compound                   | RL    | Conc  |
|----------|-----------------------------|-------|-------|-----------|----------------------------|-------|-------|
| 92-52-4  | 1,1'-Biphenyl               | 0.061 | U     | 50-32-8   | Benzo[a]pyrene             | 0.061 | 0.075 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.061 | U     | 205-99-2  | Benzo[b]fluoranthene       | 0.061 | 0.11  |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.061 | U     | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.061 | U     |
| 207-08-9 | Benzo[k]fluoranthene        | 0.061 | U     | 95-95-4   | 2,4,5-Trichlorophenol      | 0.061 | U     |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.061 | U     | 88-06-2   | 2,4,6-Trichlorophenol      | 0.061 | U     |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.015 | U     | 120-83-2  | 2,4-Dichlorophenol         | 0.015 | U     |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.061 | U     | 105-67-9  | 2,4-Dimethylphenol         | 0.015 | U     |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.061 | U     | 51-28-5   | 2,4-Dinitrophenol          | 0.30  | U     |
| 85-68-7  | Butylbenzylphthalate        | 0.061 | U     | 121-14-2  | 2,4-Dinitrotoluene         | 0.061 | U     |
| 105-60-2 | Caprolactam                 | 0.061 | U     | 606-20-2  | 2,6-Dinitrotoluene         | 0.061 | U     |
| 86-74-8  | Carbazole                   | 0.061 | U     | 91-58-7   | 2-Chloronaphthalene        | 0.061 | U     |
| 218-01-9 | Chrysene                    | 0.061 | 0.071 | 95-57-8   | 2-Chlorophenol             | 0.061 | U     |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.061 | U     | 91-57-6   | 2-Methylnaphthalene        | 0.061 | U     |
| 132-64-9 | Dibenzofuran                | 0.015 | U     | 95-48-7   | 2-Methylphenol             | 0.015 | U     |
| 84-66-2  | Diethylphthalate            | 0.061 | U     | 88-74-4   | 2-Nitroaniline             | 0.061 | U     |
| 131-11-3 | Dimethylphthalate           | 0.061 | U     | 88-75-5   | 2-Nitrophenol              | 0.061 | U     |
| 84-74-2  | Di-n-butylphthalate         | 0.015 | U     | 106-44-5  | 3&4-Methylphenol           | 0.015 | U     |
| 117-84-0 | Di-n-octylphthalate         | 0.061 | U     | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.061 | U     |
| 206-44-0 | Fluoranthene                | 0.061 | 0.13  | 99-09-2   | 3-Nitroaniline             | 0.061 | U     |
| 86-73-7  | Fluorene                    | 0.061 | U     | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.30  | U     |
| 118-74-1 | Hexachlorobenzene           | 0.061 | U     | 101-55-3  | 4-Bromophenyl-phenylether  | 0.061 | U     |
| 87-68-3  | Hexachlorobutadiene         | 0.061 | U     | 59-50-7   | 4-Chloro-3-methylphenol    | 0.061 | U     |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.061 | U     | 106-47-8  | 4-Chloroaniline            | 0.015 | U     |
| 67-72-1  | Hexachloroethane            | 0.061 | U     | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.061 | U     |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.061 | U     | 100-01-6  | 4-Nitroaniline             | 0.061 | U     |
| 78-59-1  | Isophorone                  | 0.061 | U     | 100-02-7  | 4-Nitrophenol              | 0.061 | U     |
| 91-20-3  | Naphthalene                 | 0.015 | U     | 83-32-9   | Acenaphthene               | 0.061 | U     |
| 98-95-3  | Nitrobenzene                | 0.061 | U     | 208-96-8  | Acenaphthylene             | 0.061 | U     |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.015 | U     | 98-86-2   | Acetophenone               | 0.061 | U     |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.061 | U     | 120-12-7  | Anthracene                 | 0.061 | U     |
| 87-86-5  | Pentachlorophenol           | 0.30  | U     | 1912-24-9 | Atrazine                   | 0.061 | U     |
| 85-01-8  | Phenanthrene                | 0.061 | U     | 100-52-7  | Benzaldehyde               | 0.061 | U     |
| 108-95-2 | Phenol                      | 0.061 | U     | 56-55-3   | Benzo[a]anthracene         | 0.061 | 0.075 |
| 129-00-0 | Pyrene                      | 0.061 | 0.13  |           |                            |       |       |

Worksheet #: 489030

Total Target Concentration 0.59

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

SampleID : AD07161-006  
 Data File: 9M88682.D  
 Acq On : 10/20/18 00:54

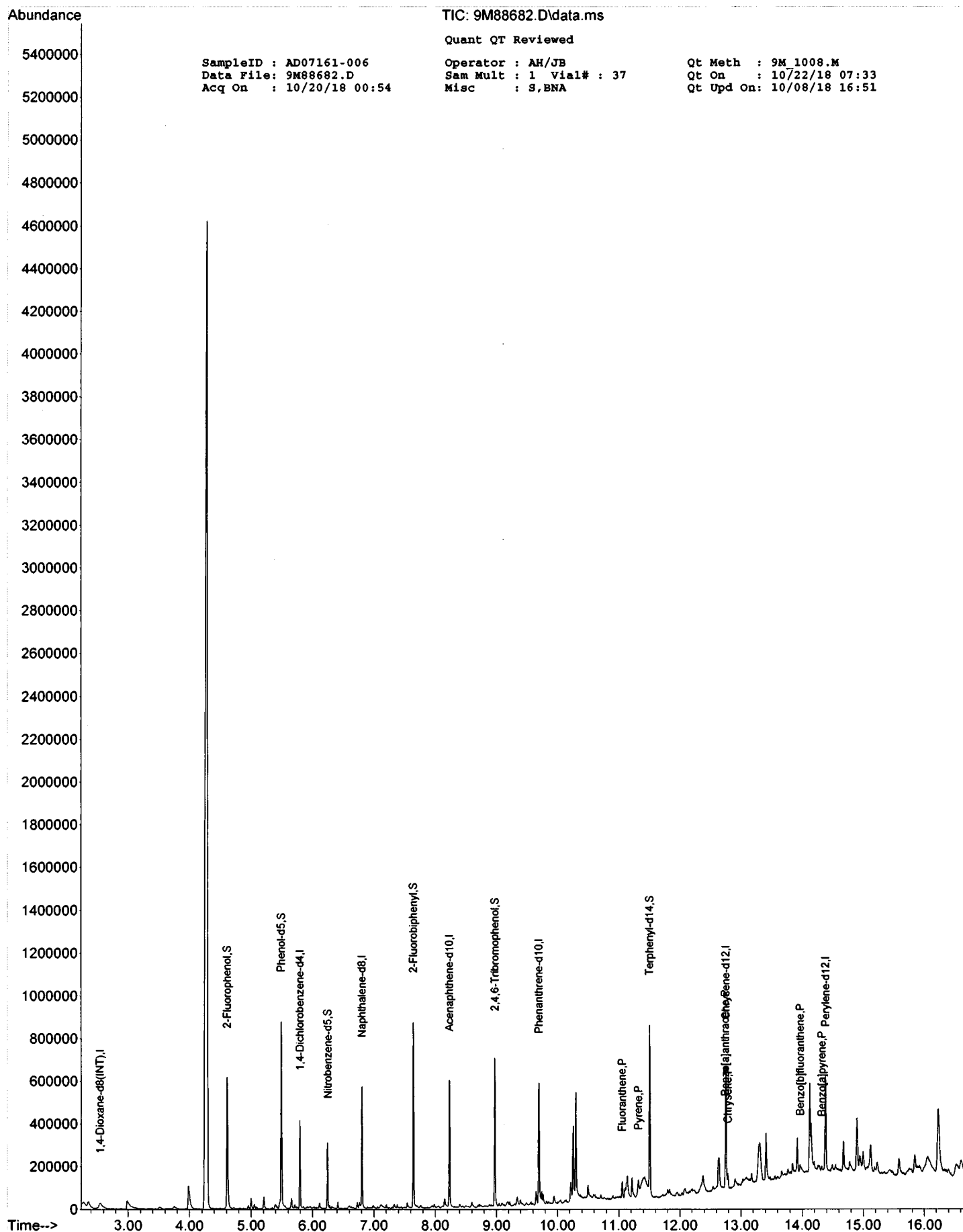
Operator : AH/JB  
 Sam Mult : 1 Vial# : 37  
 Misc : S,BNA

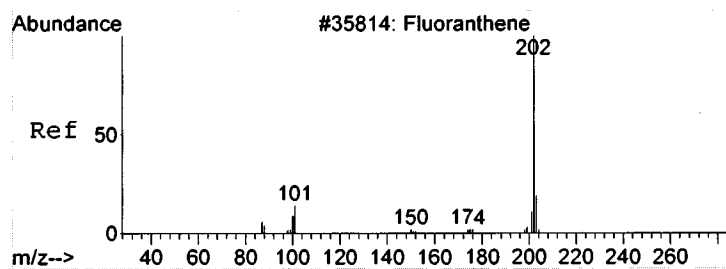
Qt Meth : 9M\_1008.M  
 Qt On : 10/22/18 07:33  
 Qt Upd On: 10/08/18 16:51

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-1918\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|--------|------|----------|--------|---------|----------|
| Internal Standards          |        |      |          |        |         |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.544  | 96   | 28251    | 40.00  | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.794  | 152  | 57294    | 40.00  | ng      | 0.00     |
| 31) Naphthalene-d8          | 6.806  | 136  | 212741   | 40.00  | ng      | 0.00     |
| 50) Acenaphthene-d10        | 8.235  | 164  | 127475   | 40.00  | ng      | 0.00     |
| 77) Phenanthrene-d10        | 9.696  | 188  | 211395   | 40.00  | ng      | 0.00     |
| 91) Chrysene-d12            | 12.756 | 240  | 214859   | 40.00  | ng      | 0.00     |
| 103) Perylene-d12           | 14.384 | 264  | 180376   | 40.00  | ng      | 0.01     |
| System Monitoring Compounds |        |      |          |        |         |          |
| 11) 2-Fluorophenol          | 4.609  | 112  | 180795   | 109.10 | ng      | 0.02     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 109.10% |          |
| 16) Phenol-d5               | 5.490  | 99   | 265478   | 111.31 | ng      | 0.01     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 111.31% |          |
| 32) Nitrobenzene-d5         | 6.246  | 128  | 34643    | 51.13  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 102.26% |          |
| 55) 2-Fluorobiphenyl        | 7.644  | 172  | 229291   | 55.74  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 111.48% |          |
| 80) 2,4,6-Tribromophenol    | 8.977  | 330  | 69339    | 117.70 | ng      | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =      | 117.70% |          |
| 94) Terphenyl-d14           | 11.503 | 244  | 235259   | 64.66  | ng      | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =      | 129.32% |          |
| Target Compounds            |        |      |          |        |         |          |
| 90) Fluoranthene            | 11.054 | 202  | 28071    | 4.2615 | ng      | 87       |
| 92) Pyrene                  | 11.318 | 202  | 25132    | 4.1923 | ng      | 80       |
| 100) Benzo[a]anthracene     | 12.744 | 228  | 14655    | 2.4816 | ng      | 91       |
| 101) Chrysene               | 12.784 | 228  | 12338    | 2.3323 | ng      | 98       |
| 105) Benzo[b]fluoranthene   | 13.966 | 252  | 18094m   | 3.5532 | ng      |          |
| 107) Benzo[a]pyrene         | 14.321 | 252  | 12425    | 2.4784 | ng      | 89       |

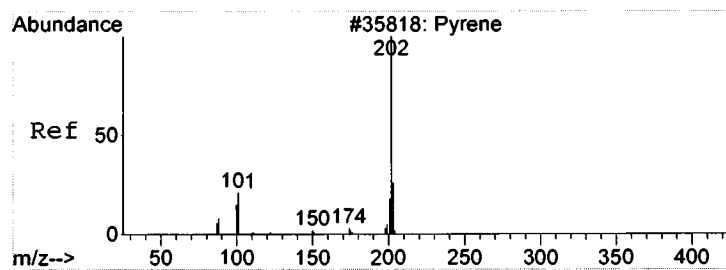
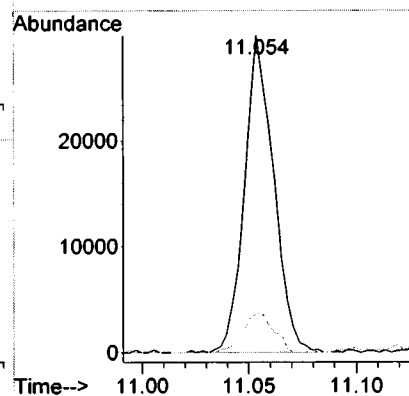
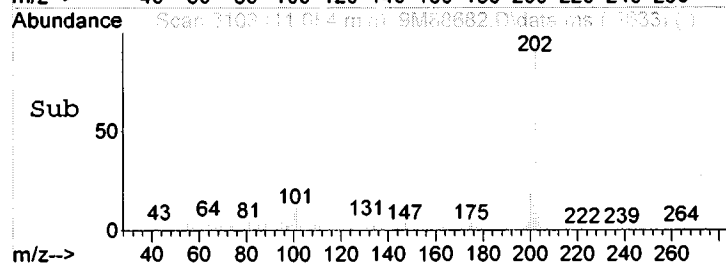
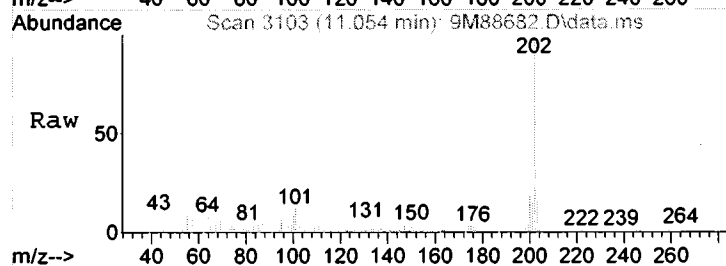
(#) = qualifier out of range (m) = manual integration (+) = signals summed





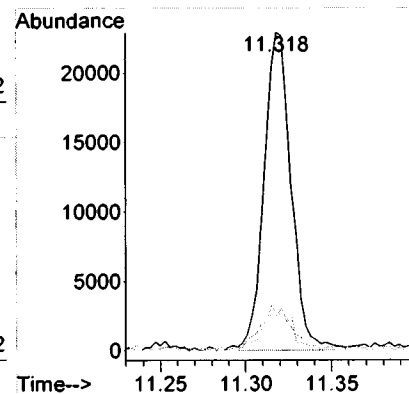
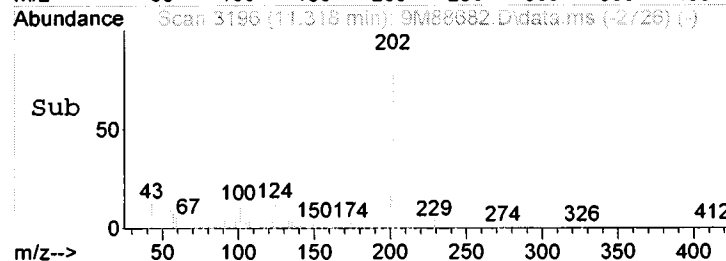
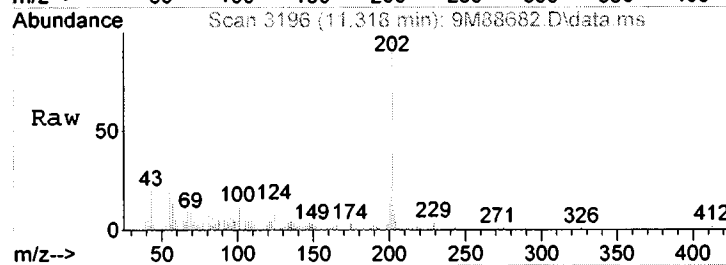
#90  
Fluoranthene  
Concen: 4.26 ng  
RT: 11.054 min Scan# 3103  
Delta R.T. 0.006 min  
Lab File: 9M88682.D  
Acq: 20 Oct 2018 00:54

Tgt Ion: 202 Resp: 28071  
Ion Ratio Lower Upper  
202 100  
101 11.7 0.0 57.6

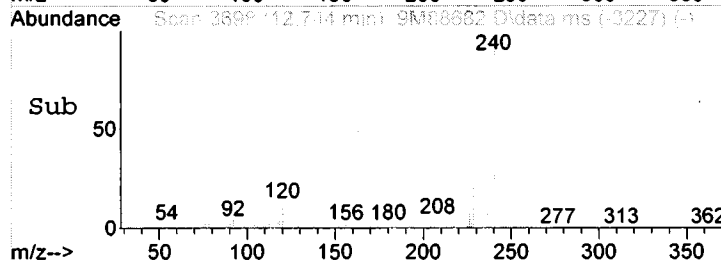
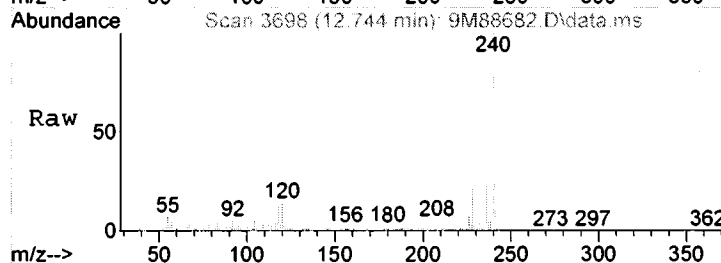
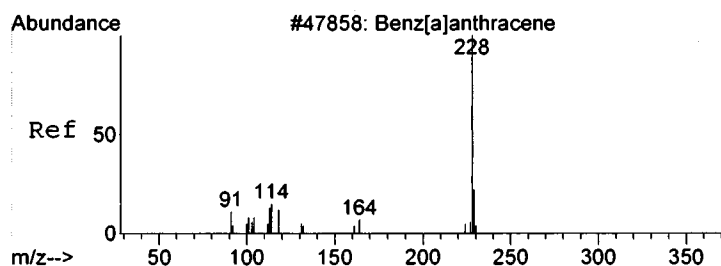


#92  
Pyrene  
Concen: 4.19 ng  
RT: 11.318 min Scan# 3196  
Delta R.T. 0.008 min  
Lab File: 9M88682.D  
Acq: 20 Oct 2018 00:54

Tgt Ion: 202 Resp: 25132  
Ion Ratio Lower Upper  
202 100  
101 10.7 0.0 62.2  
100 11.2 0.0 57.8







#100

Benzo[a]anthracene

Concen: 2.48 ng

RT: 12.744 min Scan# 3698

Delta R.T. 0.011 min

Lab File: 9M88682.D

Acq: 20 Oct 2018 00:54

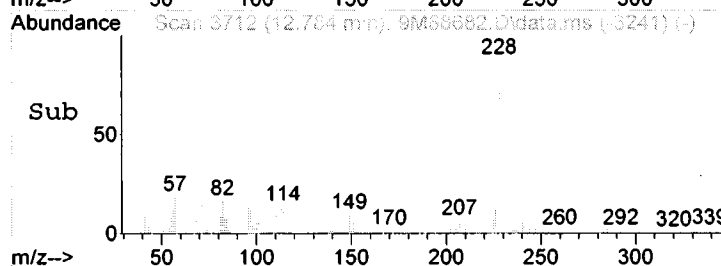
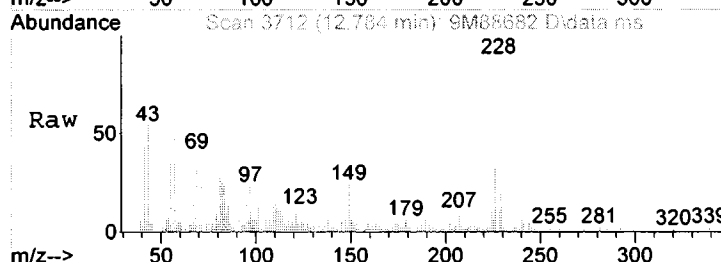
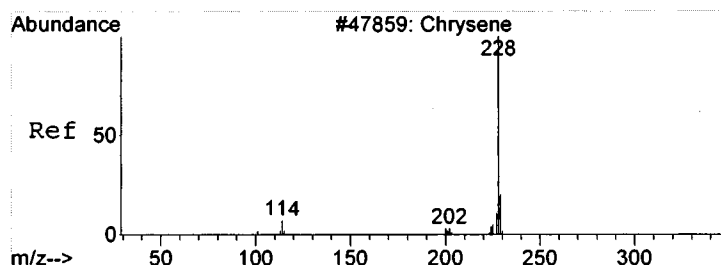
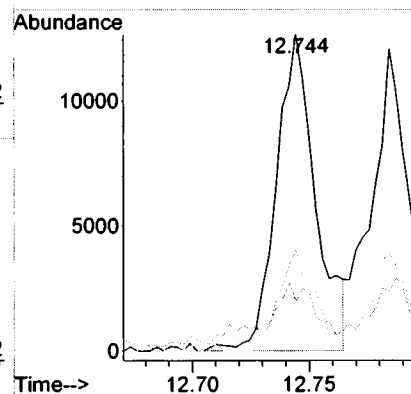
Tgt Ion: 228 Resp: 14655

Ion Ratio Lower Upper

228 100

229 11.9 0.0 59.5

226 27.6 0.0 66.0



#101

Chrysene

Concen: 2.33 ng

RT: 12.784 min Scan# 3712

Delta R.T. 0.009 min

Lab File: 9M88682.D

Acq: 20 Oct 2018 00:54

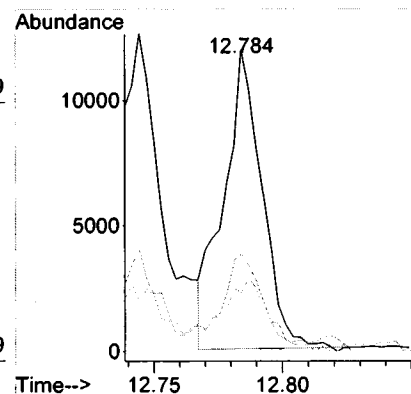
Tgt Ion: 228 Resp: 12338

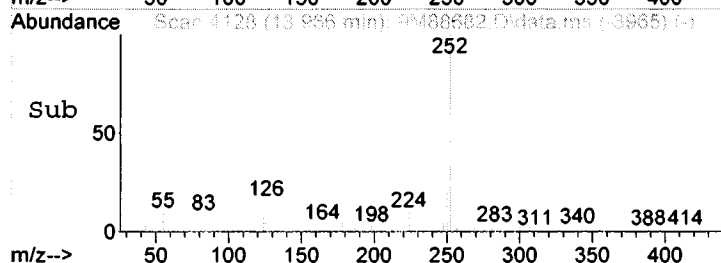
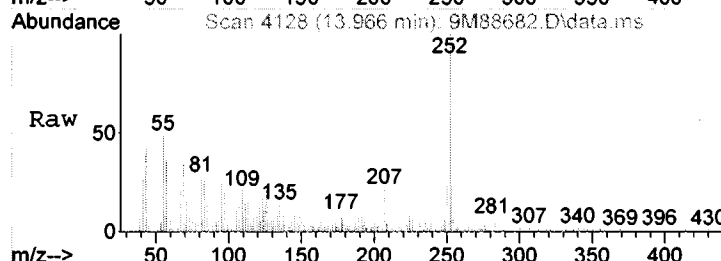
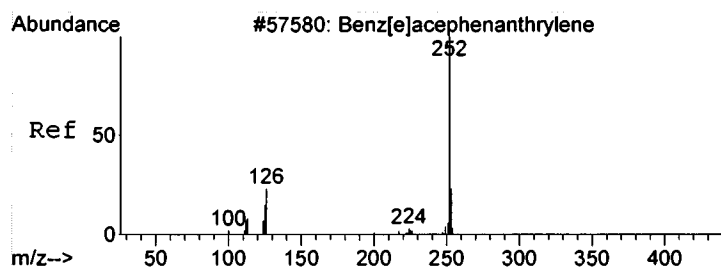
Ion Ratio Lower Upper

228 100

226 29.8 9.5 49.5

229 18.0 0.0 60.2





#105

Benzo[b]fluoranthene

Concen: 3.55 ng m

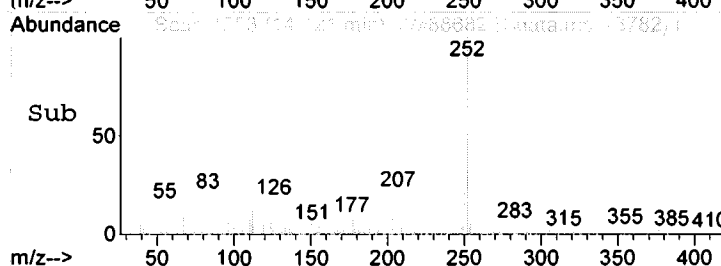
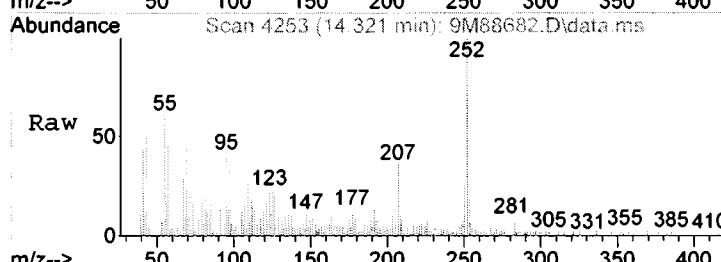
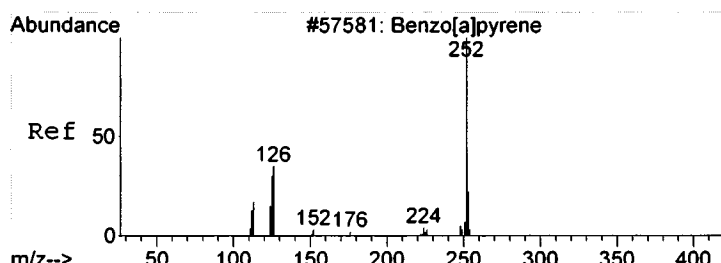
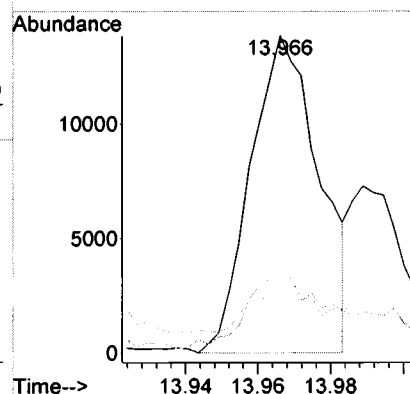
RT: 13.966 min Scan# 4128

Delta R.T. 0.009 min

Lab File: 9M88682.D

Acq: 20 Oct 2018 00:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.2  | 0.0   | 62.3  |
| 125     | 14.3  | 0.0   | 58.4  |



#107

Benzo[a]pyrene

Concen: 2.48 ng

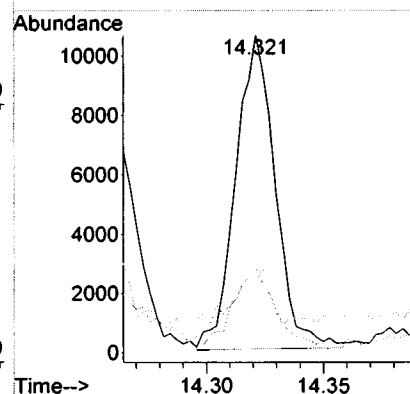
RT: 14.321 min Scan# 4253

Delta R.T. 0.009 min

Lab File: 9M88682.D

Acq: 20 Oct 2018 00:54

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.3  | 0.0   | 62.4  |
| 125     | 12.0  | 0.0   | 60.9  |



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-007(R)

Client Id: SW-DUP1-102018

Data File: 7M95355.D

Analysis Date: 10/26/18 14:01

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 970ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7   | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of a-Chlordane and γ-Chlordane.

SampleID : AD07161-007(R)  
 Data File: 7M95355.D  
 Acq On : 10/26/18 14:01

Operator : AH/JB  
 Sam Mult : 1 Vial# : 15  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/26/18 15:19  
 Qt Upd On: 10/09/18 08:53

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8(INT)     | 2.510  | 96   | 76086    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.742  | 152  | 120082   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.757  | 136  | 434760   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.172  | 164  | 241640   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.609  | 188  | 416506   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.633 | 240  | 385366   | 40.00 | ng    | -0.02    |
| 103) Perylene-d12          | 14.241 | 264  | 330987   | 40.00 | ng    | -0.03    |

|                             |        |     |          |       |        |       |
|-----------------------------|--------|-----|----------|-------|--------|-------|
| System Monitoring Compounds |        |     |          |       |        |       |
| 11) 2-Fluorophenol          | 4.540  | 112 | 163469   | 40.05 | ng     | 0.00  |
| Spiked Amount 100.000       |        |     | Recovery | =     | 40.05% |       |
| 16) Phenol-d5               | 5.421  | 99  | 163295   | 28.24 | ng     | -0.01 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 28.24% |       |
| 32) Nitrobenzene-d5         | 6.190  | 128 | 46511    | 34.08 | ng     | 0.00  |
| Spiked Amount 50.000        |        |     | Recovery | =     | 68.16% |       |
| 55) 2-Fluorobiphenyl        | 7.590  | 172 | 278588   | 36.31 | ng     | 0.00  |
| Spiked Amount 50.000        |        |     | Recovery | =     | 72.62% |       |
| 80) 2,4,6-Tribromophenol    | 8.899  | 330 | 73173    | 72.75 | ng     | 0.00  |
| Spiked Amount 100.000       |        |     | Recovery | =     | 72.75% |       |
| 94) Terphenyl-d14           | 11.404 | 244 | 293906   | 44.45 | ng     | 0.00  |
| Spiked Amount 50.000        |        |     | Recovery | =     | 88.90% |       |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*Veri*

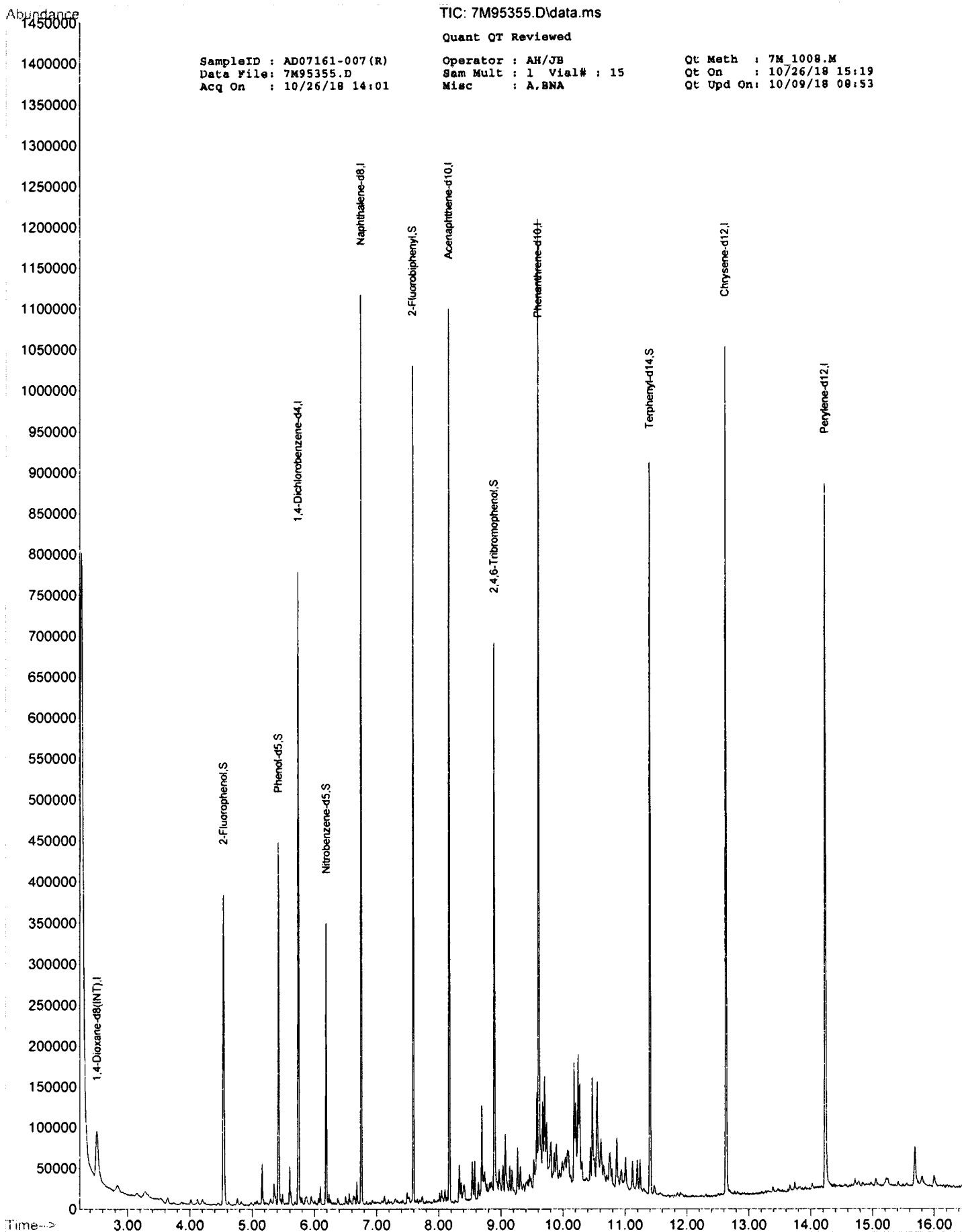
TIC: 7M95355.D\data.ms

Quant QT Reviewed

SampleID : AD07161-007(R)  
Data File: 7M95355.D  
Acq On : 10/26/18 14:01

Operator : AH/JB  
Sam Mult : 1 Vial# : 15  
Misc : A,BNA

Qt Meth : 7M 1008.M  
Qt On : 10/26/18 15:19  
Qt Upd On: 10/09/18 08:53



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-008(R)

Client Id: SW-4-102018

Data File: 7M95356.D

Analysis Date: 10/26/18 14:25

Date Rec/Extracted: 10/17/18-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 960ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.26 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.26 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.26 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.26 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.2  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.26 | U    |
| 95-48-7   | 2-Methylphenol             | 0.26 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.26 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.26 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.2  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.26 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.26 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.26 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.2  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

SampleID : AD07161-008(R)  
Data File: 7M95356.D  
Acq On : 10/26/18 14:25

Operator : AH/JB  
Sam Mult : 1 Vial# : 16  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/26/18 15:19  
Qt Upd On: 10/09/18 08:53

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

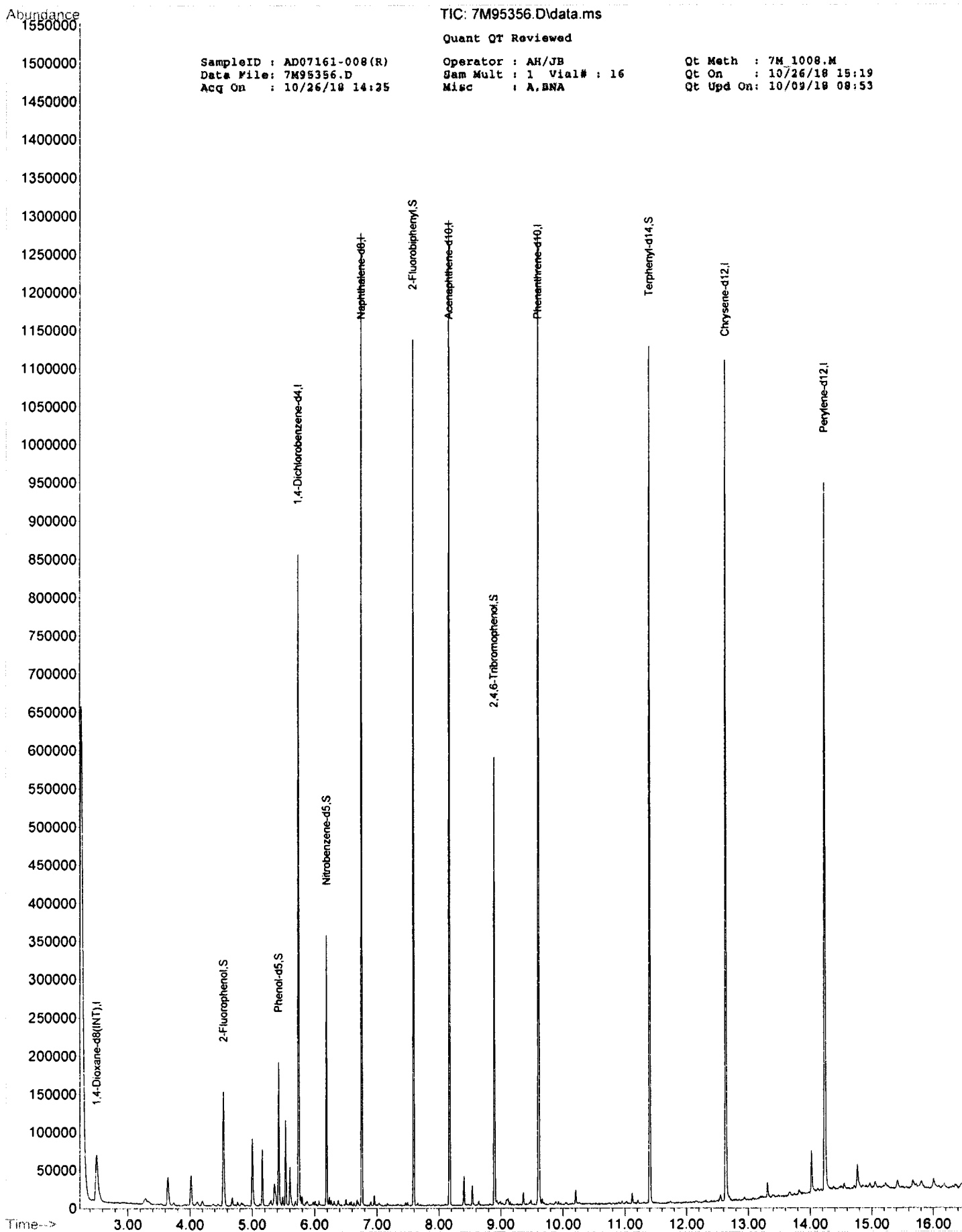
| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8(INT)     | 2.504  | 96   | 74695    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.742  | 152  | 130977   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.757  | 136  | 474974   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.172  | 164  | 272873   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.609  | 188  | 472791   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.638 | 240  | 429667   | 40.00 | ng    | -0.01    |
| 103) Perylene-d12          | 14.241 | 264  | 366645   | 40.00 | ng    | -0.03    |

|                             |         |     |          |       |        |       |
|-----------------------------|---------|-----|----------|-------|--------|-------|
| System Monitoring Compounds |         |     |          |       |        |       |
| 11) 2-Fluorophenol          | 4.540   | 112 | 60967    | 15.22 | ng     | 0.00  |
| Spiked Amount               | 100.000 |     | Recovery | =     | 15.22% |       |
| 16) Phenol-d5               | 5.421   | 99  | 67442    | 11.88 | ng     | -0.01 |
| Spiked Amount               | 100.000 |     | Recovery | =     | 11.88% |       |
| 32) Nitrobenzene-d5         | 6.190   | 128 | 50673    | 33.99 | ng     | 0.00  |
| Spiked Amount               | 50.000  |     | Recovery | =     | 67.98% |       |
| 55) 2-Fluorobiphenyl        | 7.590   | 172 | 317627   | 36.66 | ng     | 0.00  |
| Spiked Amount               | 50.000  |     | Recovery | =     | 73.32% |       |
| 80) 2,4,6-Tribromophenol    | 8.899   | 330 | 63910    | 56.84 | ng     | 0.00  |
| Spiked Amount               | 100.000 |     | Recovery | =     | 56.84% |       |
| 94) Terphenyl-d14           | 11.404  | 244 | 368001   | 49.92 | ng     | 0.00  |
| Spiked Amount               | 50.000  |     | Recovery | =     | 99.84% |       |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

2





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: AD07161-009

Client Id: SD-4-102018

Data File: 9M88683.D

Analysis Date: 10/20/18 01:17

Date Rec/Extracted: 10/17/18-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 30

## Units: mg/Kg

| Cas #    | Compound                    | RL    | Conc | Cas #     | Compound                   | RL    | Conc |
|----------|-----------------------------|-------|------|-----------|----------------------------|-------|------|
| 92-52-4  | 1,1'-Biphenyl               | 0.11  | U    | 50-32-8   | Benzo[a]pyrene             | 0.11  | 0.17 |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzene  | 0.11  | U    | 205-99-2  | Benzo[b]fluoranthene       | 0.11  | 0.26 |
| 191-24-2 | Benzo[g,h,i]perylene        | 0.11  | 0.14 | 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.11  | U    |
| 207-08-9 | Benzo[k]fluoranthene        | 0.11  | U    | 95-95-4   | 2,4,5-Trichlorophenol      | 0.11  | U    |
| 111-91-1 | bis(2-Chloroethoxy)methan   | 0.11  | U    | 88-06-2   | 2,4,6-Trichlorophenol      | 0.11  | U    |
| 111-44-4 | bis(2-Chloroethyl)ether     | 0.028 | U    | 120-83-2  | 2,4-Dichlorophenol         | 0.028 | U    |
| 108-60-1 | bis(2-chloroisopropyl)ether | 0.11  | U    | 105-67-9  | 2,4-Dimethylphenol         | 0.028 | U    |
| 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.11  | U    | 51-28-5   | 2,4-Dinitrophenol          | 0.56  | U    |
| 85-68-7  | Butylbenzylphthalate        | 0.11  | U    | 121-14-2  | 2,4-Dinitrotoluene         | 0.11  | U    |
| 105-60-2 | Caprolactam                 | 0.11  | U    | 606-20-2  | 2,6-Dinitrotoluene         | 0.11  | U    |
| 86-74-8  | Carbazole                   | 0.11  | U    | 91-58-7   | 2-Chloronaphthalene        | 0.11  | U    |
| 218-01-9 | Chrysene                    | 0.11  | 0.18 | 95-57-8   | 2-Chlorophenol             | 0.11  | U    |
| 53-70-3  | Dibenzo[a,h]anthracene      | 0.11  | U    | 91-57-6   | 2-Methylnaphthalene        | 0.11  | U    |
| 132-64-9 | Dibenzofuran                | 0.028 | U    | 95-48-7   | 2-Methylphenol             | 0.028 | U    |
| 84-66-2  | Diethylphthalate            | 0.11  | U    | 88-74-4   | 2-Nitroaniline             | 0.11  | U    |
| 131-11-3 | Dimethylphthalate           | 0.11  | U    | 88-75-5   | 2-Nitrophenol              | 0.11  | U    |
| 84-74-2  | Di-n-butylphthalate         | 0.028 | U    | 106-44-5  | 3&4-Methylphenol           | 0.028 | U    |
| 117-84-0 | Di-n-octylphthalate         | 0.11  | U    | 91-94-1   | 3,3'-Dichlorobenzidine     | 0.11  | U    |
| 206-44-0 | Fluoranthene                | 0.11  | 0.27 | 99-09-2   | 3-Nitroaniline             | 0.11  | U    |
| 86-73-7  | Fluorene                    | 0.11  | U    | 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.56  | U    |
| 118-74-1 | Hexachlorobenzene           | 0.11  | U    | 101-55-3  | 4-Bromophenyl-phenylether  | 0.11  | U    |
| 87-68-3  | Hexachlorobutadiene         | 0.11  | U    | 59-50-7   | 4-Chloro-3-methylphenol    | 0.11  | U    |
| 77-47-4  | Hexachlorocyclopentadiene   | 0.11  | U    | 106-47-8  | 4-Chloroaniline            | 0.028 | U    |
| 67-72-1  | Hexachloroethane            | 0.11  | U    | 7005-72-3 | 4-Chlorophenyl-phenylether | 0.11  | U    |
| 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.11  | U    | 100-01-6  | 4-Nitroaniline             | 0.11  | U    |
| 78-59-1  | Isophorone                  | 0.11  | U    | 100-02-7  | 4-Nitrophenol              | 0.11  | U    |
| 91-20-3  | Naphthalene                 | 0.028 | U    | 83-32-9   | Acenaphthene               | 0.11  | U    |
| 98-95-3  | Nitrobenzene                | 0.11  | U    | 208-96-8  | Acenaphthylene             | 0.11  | U    |
| 621-64-7 | N-Nitroso-di-n-propylamine  | 0.028 | U    | 98-86-2   | Acetophenone               | 0.11  | U    |
| 86-30-6  | n-Nitrosodiphenylamine      | 0.11  | U    | 120-12-7  | Anthracene                 | 0.11  | U    |
| 87-86-5  | Pentachlorophenol           | 0.56  | U    | 1912-24-9 | Atrazine                   | 0.11  | U    |
| 85-01-8  | Phenanthrene                | 0.11  | 0.12 | 100-52-7  | Benzaldehyde               | 0.11  | 0.60 |
| 108-95-2 | Phenol                      | 0.11  | U    | 56-55-3   | Benzo[a]anthracene         | 0.11  | 0.14 |
| 129-00-0 | Pyrene                      | 0.11  | 0.27 |           |                            |       |      |

Worksheet #: 489030

Total Target Concentration 2.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

SampleID : AD07161-009  
 Data File: 9M88683.D  
 Acq On : 10/20/18 01:17

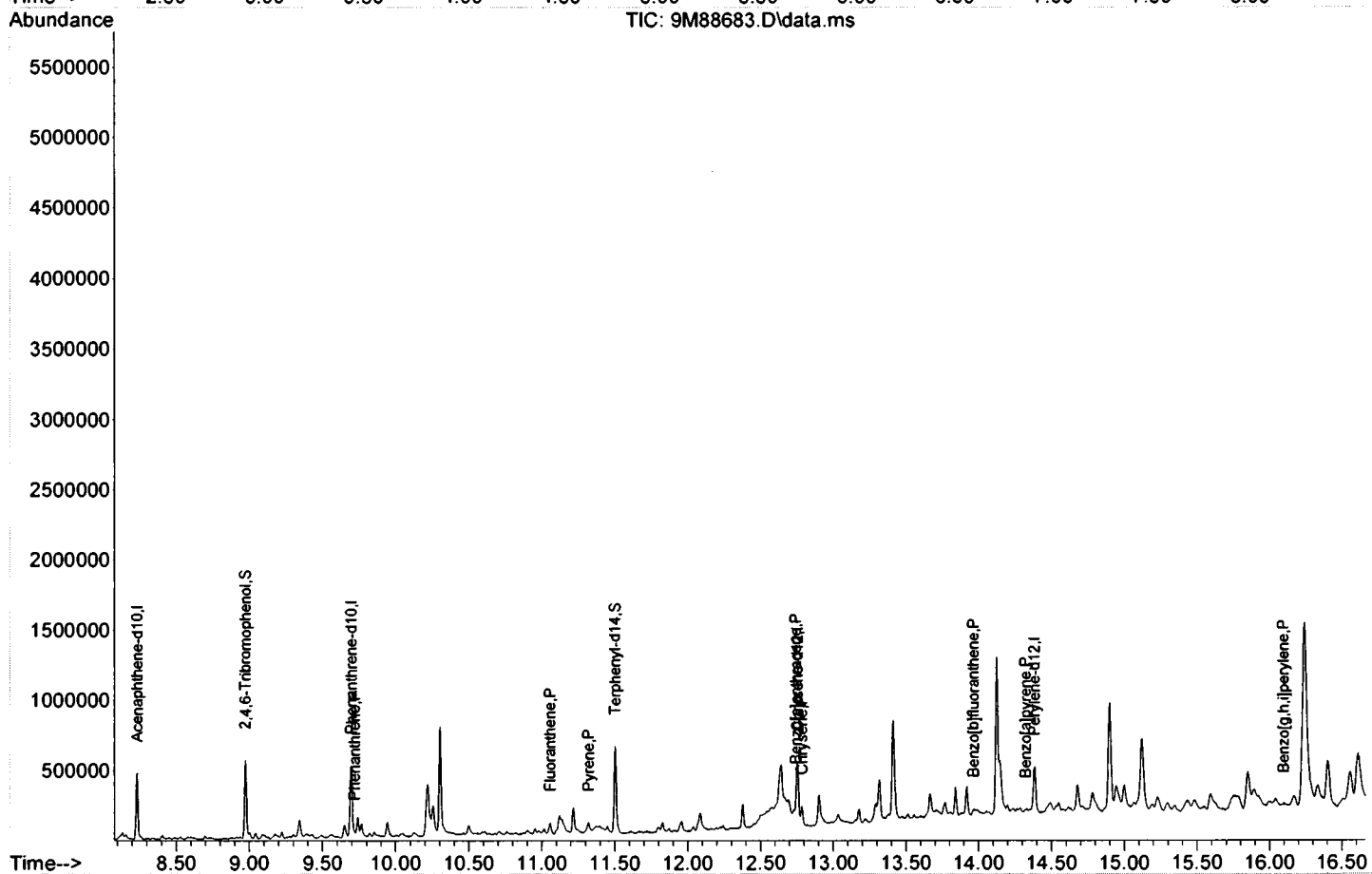
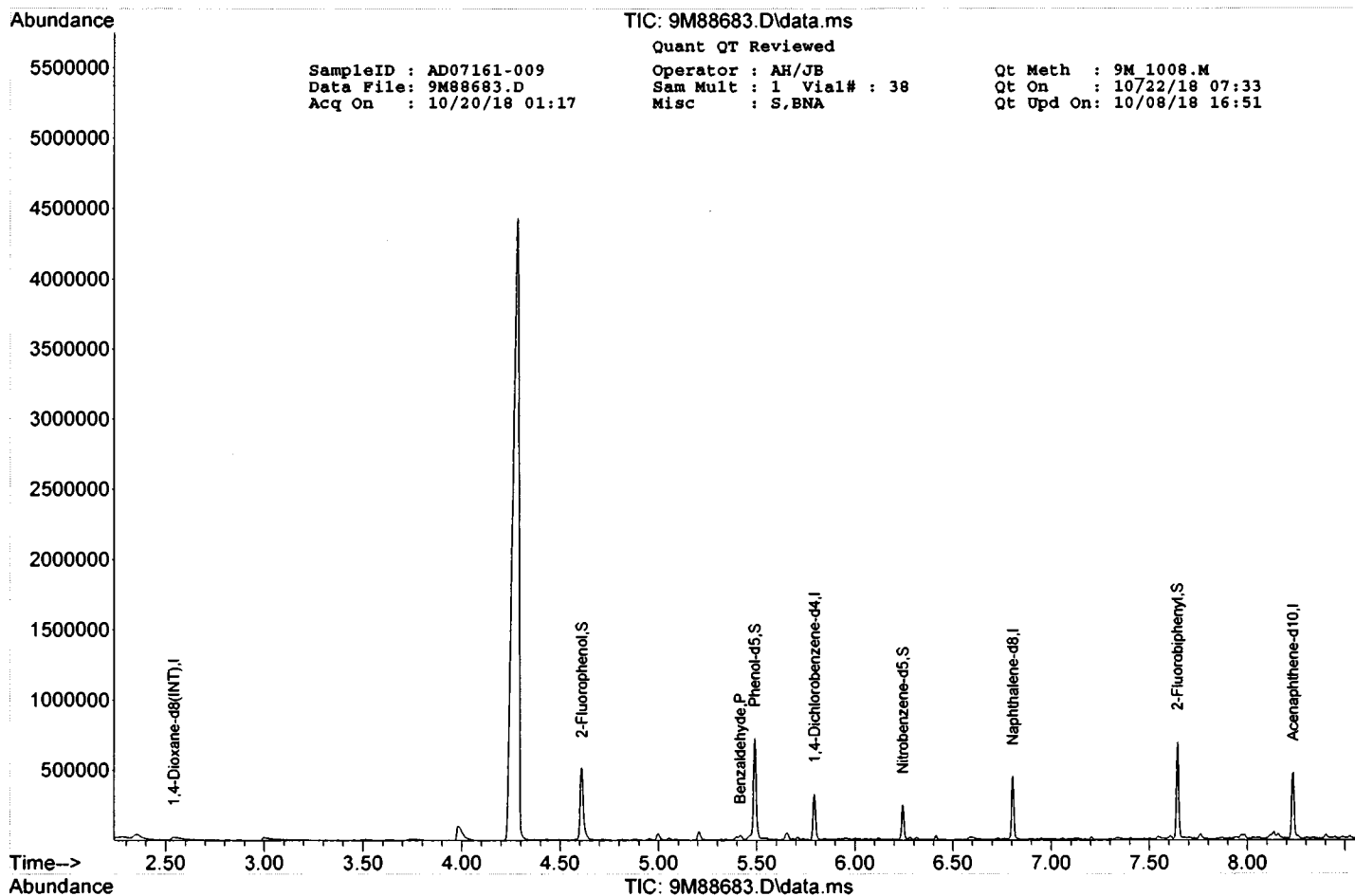
Operator : AH/JB  
 Sam Mult : 1 Vial# : 38  
 Misc : S,BNA

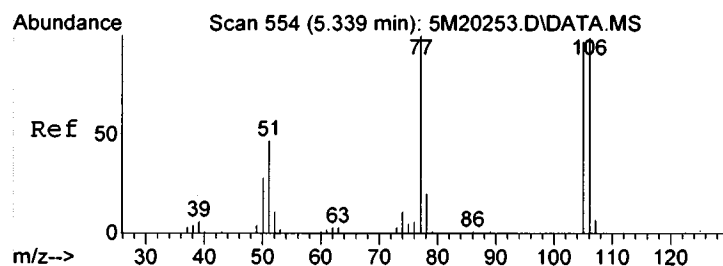
Qt Meth : 9M\_1008.M  
 Qt On : 10/22/18 07:33  
 Qt Upd On: 10/08/18 16:51

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-1918\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.    | QIon | Response | Conc    | Units   | Dev(Min) |
|-----------------------------|---------|------|----------|---------|---------|----------|
| Internal Standards          |         |      |          |         |         |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.541   | 96   | 21960    | 40.00   | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.794   | 152  | 45242    | 40.00   | ng      | 0.00     |
| 31) Naphthalene-d8          | 6.806   | 136  | 164715   | 40.00   | ng      | 0.00     |
| 50) Acenaphthene-d10        | 8.235   | 164  | 99314    | 40.00   | ng      | 0.00     |
| 77) Phenanthrene-d10        | 9.695   | 188  | 162455   | 40.00   | ng      | 0.00     |
| 91) Chrysene-d12            | 12.756  | 240  | 169183   | 40.00   | ng      | 0.00     |
| 103) Perylene-d12           | 14.384  | 264  | 139012   | 40.00   | ng      | 0.01     |
| System Monitoring Compounds |         |      |          |         |         |          |
| 11) 2-Fluorophenol          | 4.612   | 112  | 142465   | 110.60  | ng      | 0.02     |
| Spiked Amount               | 100.000 |      | Recovery | =       | 110.60% |          |
| 16) Phenol-d5               | 5.490   | 99   | 212349   | 114.54  | ng      | 0.01     |
| Spiked Amount               | 100.000 |      | Recovery | =       | 114.54% |          |
| 32) Nitrobenzene-d5         | 6.243   | 128  | 28292    | 53.93   | ng      | 0.00     |
| Spiked Amount               | 50.000  |      | Recovery | =       | 107.86% |          |
| 55) 2-Fluorobiphenyl        | 7.644   | 172  | 178023   | 55.55   | ng      | 0.00     |
| Spiked Amount               | 50.000  |      | Recovery | =       | 111.10% |          |
| 80) 2,4,6-Tribromophenol    | 8.974   | 330  | 53683    | 118.47  | ng      | 0.00     |
| Spiked Amount               | 100.000 |      | Recovery | =       | 118.47% |          |
| 94) Terphenyl-d14           | 11.503  | 244  | 182260   | 63.62   | ng      | 0.00     |
| Spiked Amount               | 50.000  |      | Recovery | =       | 127.24% |          |
| Target Compounds            |         |      |          |         |         |          |
| 12) Benzaldehyde            | 5.416   | 77   | 7758     | 10.7850 | ng      | 78       |
| 86) Phenanthrene            | 9.718   | 178  | 8722     | 2.1142  | ng      | 97       |
| 90) Fluoranthene            | 11.057  | 202  | 24631    | 4.8657  | ng      | 89       |
| 92) Pyrene                  | 11.321  | 202  | 23095    | 4.8926  | ng      | 86       |
| 100) Benzo[a]anthracene     | 12.744  | 228  | 11639m   | 2.5030  | ng      |          |
| 101) Chrysene               | 12.784  | 228  | 13445m   | 3.2246  | ng      |          |
| 105) Benzo[b]fluoranthene   | 13.966  | 252  | 18320m   | 4.6680  | ng      |          |
| 107) Benzo[a]pyrene         | 14.321  | 252  | 11976m   | 3.0997  | ng      |          |
| 110) Benzo[g,h,i]perylene   | 16.097  | 276  | 8719     | 2.5004  | ng      | 60       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





#12

Benzaldehyde

Concen: 10.78 ng

RT: 5.416 min Scan# 1119

Delta R.T. 0.006 min

Lab File: 9M88683.D

Acq: 20 Oct 2018 1:17

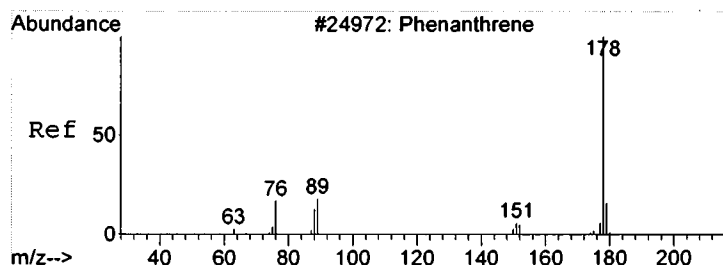
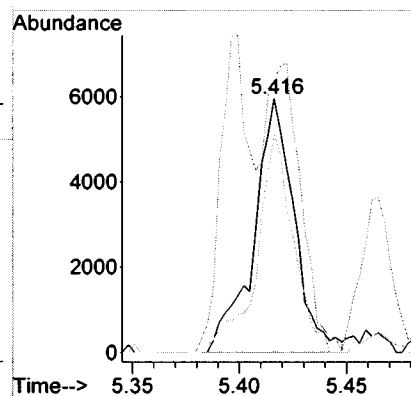
Tgt Ion: 77 Resp: 7758

Ion Ratio Lower Upper

77 100

105 107.4 0.0 276.0

106 85.9 0.0 278.4



#86

Phenanthrene

Concen: 2.11 ng

RT: 9.718 min Scan# 2633

Delta R.T. 0.003 min

Lab File: 9M88683.D

Acq: 20 Oct 2018 1:17

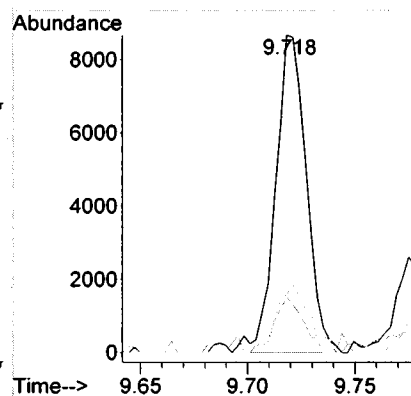
Tgt Ion: 178 Resp: 8722

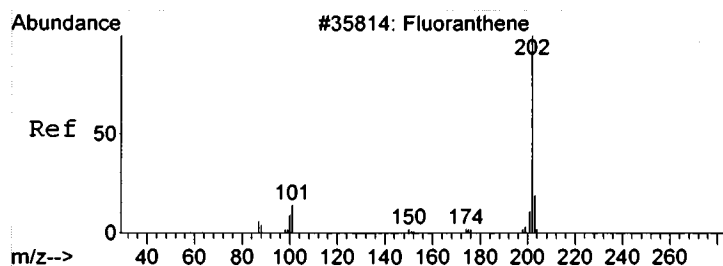
Ion Ratio Lower Upper

178 100

179 17.4 0.0 55.5

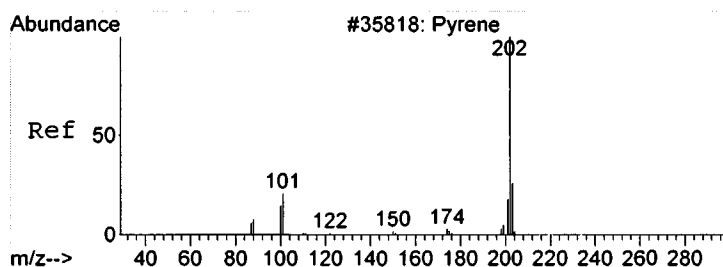
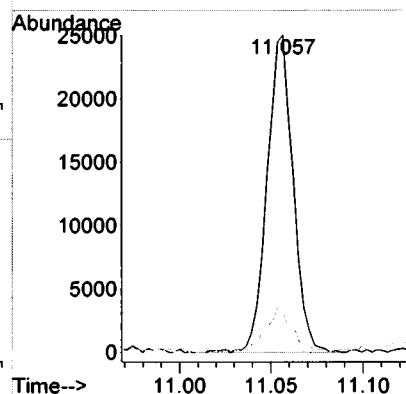
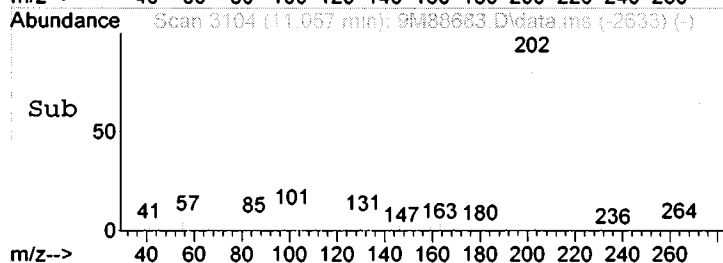
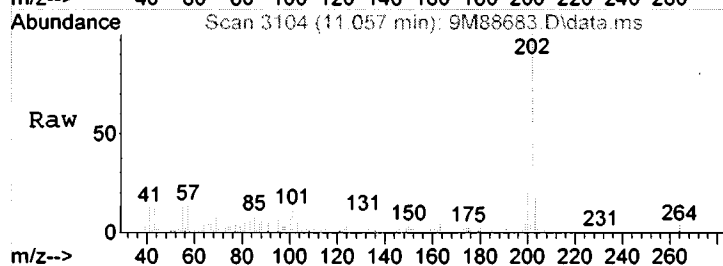
176 18.5 0.0 59.3





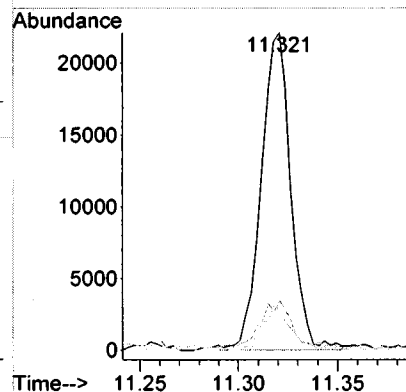
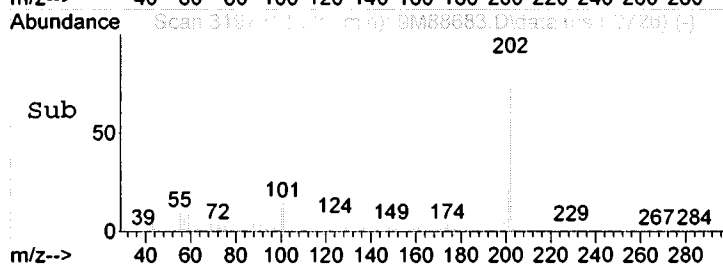
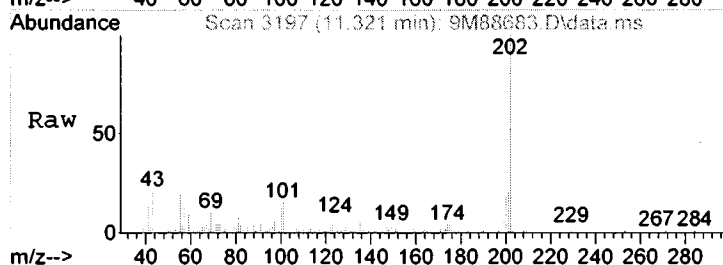
#90  
Fluoranthene  
Concen: 4.87 ng  
RT: 11.057 min Scan# 3104  
Delta R.T. 0.009 min  
Lab File: 9M88683.D  
Acq: 20 Oct 2018 1:17

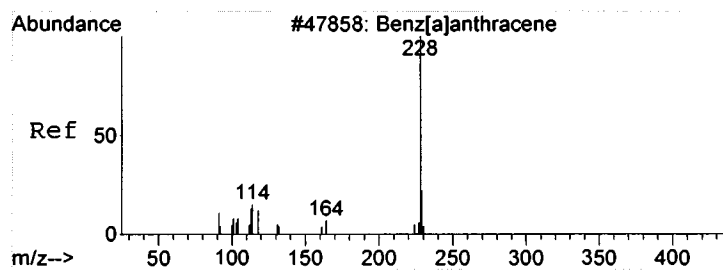
Tgt Ion: 202 Resp: 24631  
Ion Ratio Lower Upper  
202 100  
101 12.6 0.0 57.6



#92  
Pyrene  
Concen: 4.89 ng  
RT: 11.321 min Scan# 3197  
Delta R.T. 0.011 min  
Lab File: 9M88683.D  
Acq: 20 Oct 2018 1:17

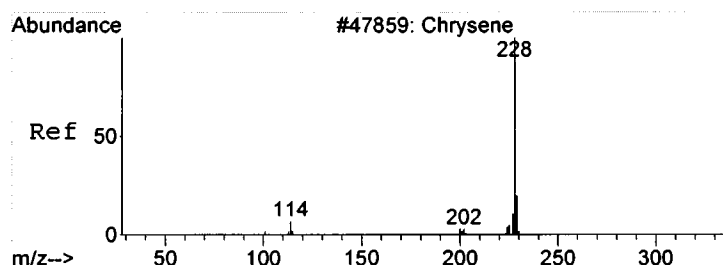
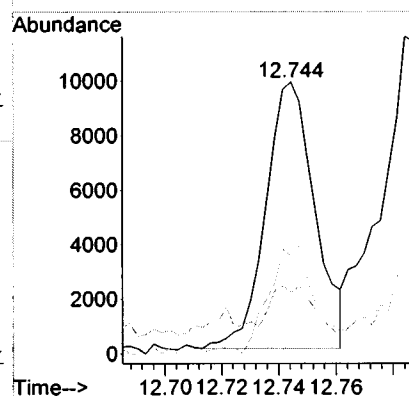
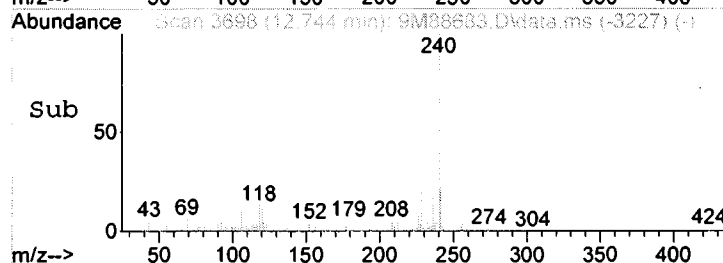
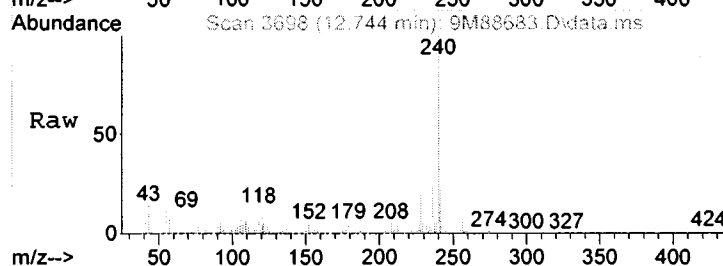
Tgt Ion: 202 Resp: 23095  
Ion Ratio Lower Upper  
202 100  
101 14.7 0.0 62.2  
100 12.8 0.0 57.8





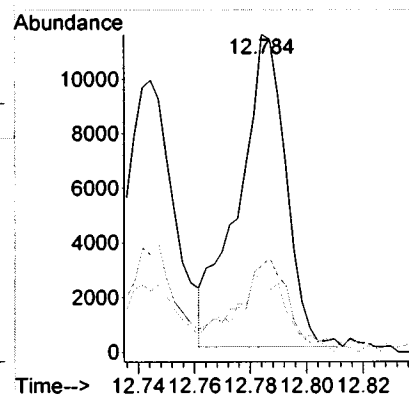
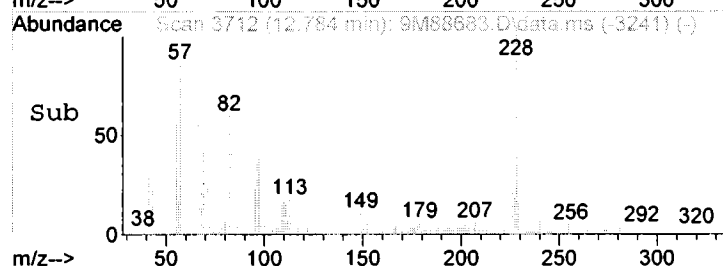
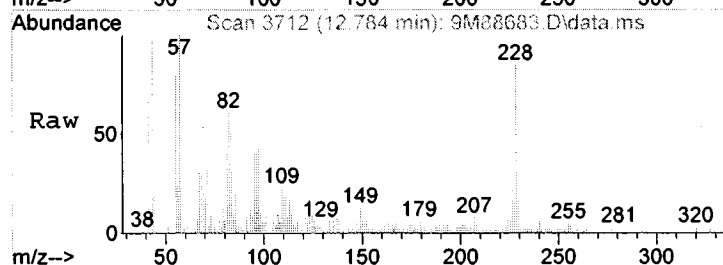
#100  
Benzo[a]anthracene  
Concen: 2.50 ng m  
RT: 12.744 min Scan# 3698  
Delta R.T. 0.011 min  
Lab File: 9M88683.D  
Acq: 20 Oct 2018 1:17

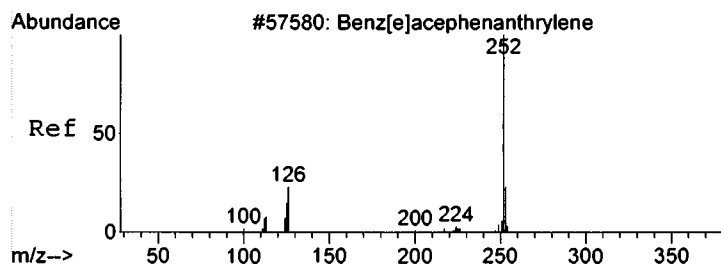
| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 228     | 100   | 11639 |       |       |
| 229     | 22.4  | 0.0   | 59.5  |       |
| 226     | 35.8  | 0.0   | 66.0  |       |



#101  
Chrysene  
Concen: 3.22 ng m  
RT: 12.784 min Scan# 3712  
Delta R.T. 0.009 min  
Lab File: 9M88683.D  
Acq: 20 Oct 2018 1:17

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 228     | 100   | 13445 |       |       |
| 226     | 27.2  | 9.5   | 49.5  |       |
| 229     | 22.9  | 0.0   | 60.2  |       |





#105

Benzo[b]fluoranthene

Concen: 4.67 ng m

RT: 13.966 min Scan# 4128

Delta R.T. 0.009 min

Lab File: 9M88683.D

Acq: 20 Oct 2018 1:17

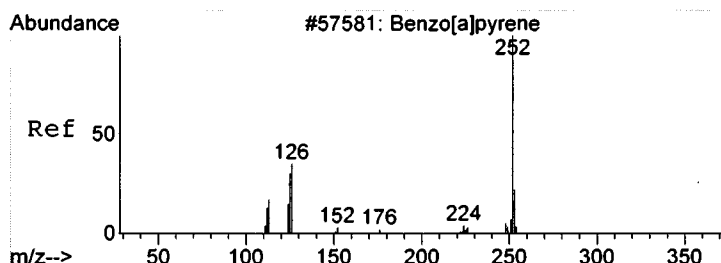
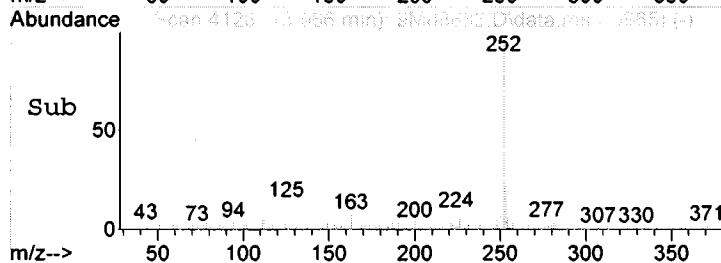
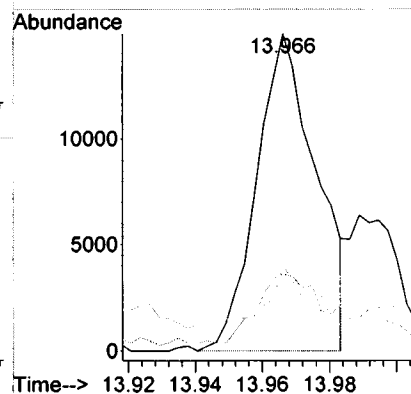
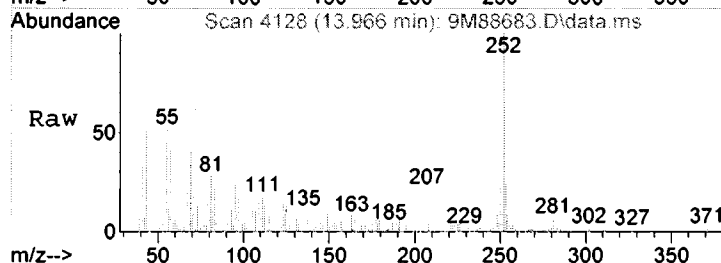
Tgt Ion:252 Resp: 18320

Ion Ratio Lower Upper

252 100

253 24.2 0.0 62.3

125 13.5 0.0 58.4



#107

Benzo[a]pyrene

Concen: 3.10 ng m

RT: 14.321 min Scan# 4253

Delta R.T. 0.009 min

Lab File: 9M88683.D

Acq: 20 Oct 2018 1:17

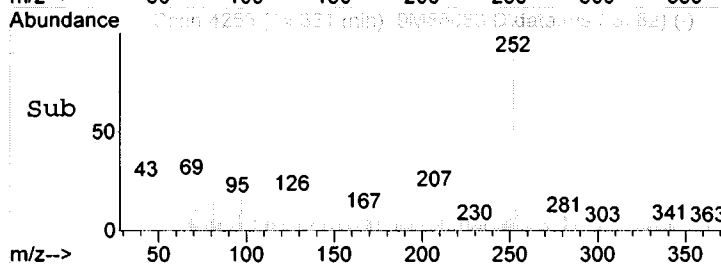
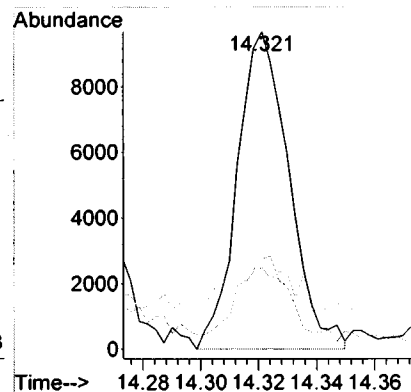
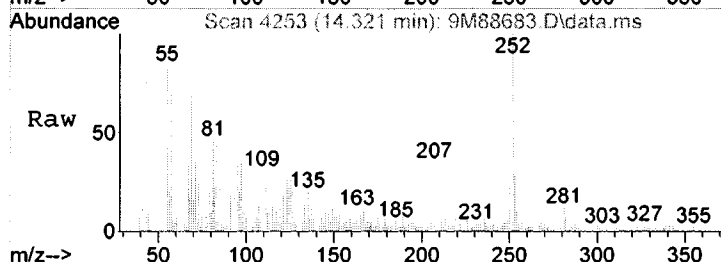
Tgt Ion:252 Resp: 11976

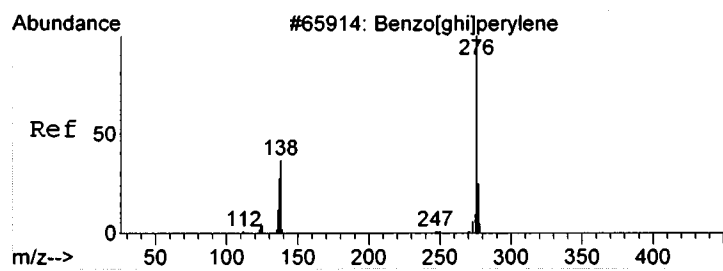
Ion Ratio Lower Upper

252 100

253 28.4 0.0 62.4

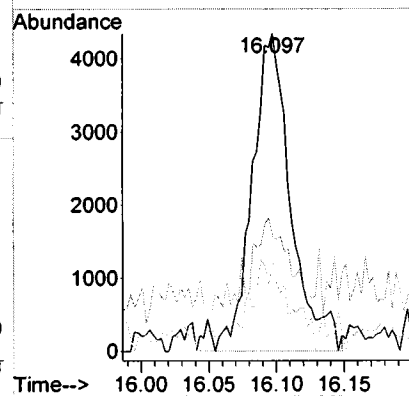
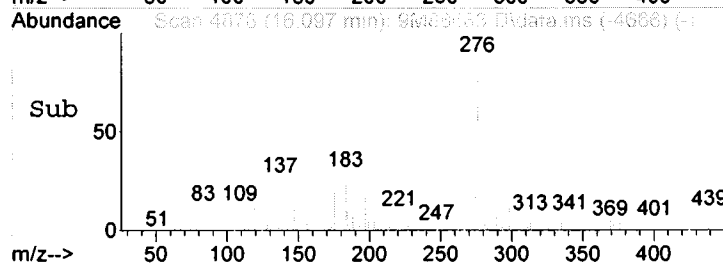
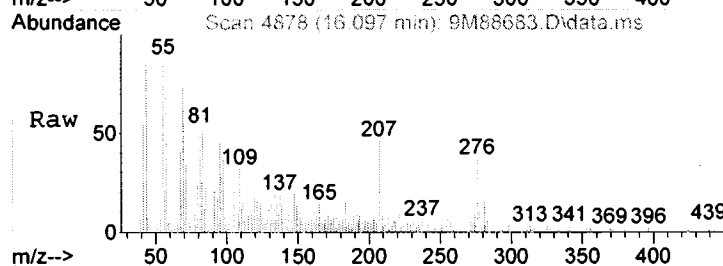
125 25.7 0.0 60.9





#110  
Benzo[g,h,i]perylene  
Concen: 2.50 ng  
RT: 16.097 min Scan# 4878  
Delta R.T. 0.037 min  
Lab File: 9M88683.D  
Acq: 20 Oct 2018 1:17

| Tgt Ion | 276   | Resp  | 8719  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 276     | 100   |       |       |
| 138     | 18.1  | 0.0   | 100.0 |
| 277     | 14.0  | 0.0   | 60.0  |





**GC/MS Base Neutral/Acid Extractable Data  
Standards Data**

| Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |     | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |       |    |       |       |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 1        | 10M71237.D | CAL BNA@50PPM   |                    |     |     |     |     |          | 2          | 10M71230.D      | CAL BNA@20PPM      |     |     |     |       |    |       |       |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(s) applicable

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

| Level #:                         | Data File: |    |     |                | Cal Identifier: |          | Analysis Date/Time |        |            |        |                |        |          |        |       | Level #: | Data File: |       |       |       | Cal Identifier: |       | Analysis Date/Time |       |       |       |       |  |  |  |  |
|----------------------------------|------------|----|-----|----------------|-----------------|----------|--------------------|--------|------------|--------|----------------|--------|----------|--------|-------|----------|------------|-------|-------|-------|-----------------|-------|--------------------|-------|-------|-------|-------|--|--|--|--|
|                                  | Col        | Mr | Fit | RF1            | RF2             | RF3      | RF4                | RF5    | RF6        | RF7    | RF8            | RF9    | AvgRt    | RT     | Corr1 |          | Corr2      | %Rsd  | Lvl1  | Lvl2  | Lvl3            | Lvl4  | Lvl5               | Lvl6  | Lvl7  | Lvl8  | Lvl9  |  |  |  |  |
| 1                                | 10M71237.D |    |     | CAL BNA@50PPM  |                 | 10/08/18 | 11:51              | 2      | 10M71230.D |        | CAL BNA@2PPM   |        | 10/08/18 | 09:15  | 50.00 | 2.00     | 10.00      | 20.00 | 80.00 | 120.0 | 160.0           | 160.0 | 196.0              |       |       |       |       |  |  |  |  |
| 3                                | 10M71229.D |    |     | CAL BNA@10PPM  |                 | 10/08/18 | 08:51              | 4      | 10M71235.D |        | CAL BNA@20PPM  |        | 10/08/18 | 11:06  | 50.00 | 2.00     | 10.00      | 20.00 | 80.00 | 120.0 | 160.0           | 160.0 | 196.0              |       |       |       |       |  |  |  |  |
| 5                                | 10M71234.D |    |     | CAL BNA@80PPM  |                 | 10/08/18 | 10:44              | 6      | 10M71233.D |        | CAL BNA@120PPM |        | 10/08/18 | 10:22  | 50.00 | 2.00     | 10.00      | 20.00 | 80.00 | 120.0 | 160.0           | 160.0 | 196.0              |       |       |       |       |  |  |  |  |
| 7                                | 10M71232.D |    |     | CAL BNA@160PPM |                 | 10/08/18 | 10:00              | 8      | 10M71231.D |        | CAL BNA@196PPM |        | 10/08/18 | 09:38  | 50.00 | 2.00     | 10.00      | 20.00 | 80.00 | 120.0 | 160.0           | 160.0 | 196.0              |       |       |       |       |  |  |  |  |
| 9                                | 10M71236.D |    |     | CAL BNA@.5PPM  |                 | 10/08/18 | 11:28              |        |            |        |                |        |          |        |       |          |            |       |       |       |                 |       |                    |       |       |       |       |  |  |  |  |
| Calibration Level Concentrations |            |    |     |                |                 |          |                    |        |            |        |                |        |          |        |       |          |            |       |       |       |                 |       |                    |       |       |       |       |  |  |  |  |
| Compound                         | Col        | Mr | Fit | RF1            | RF2             | RF3      | RF4                | RF5    | RF6        | RF7    | RF8            | RF9    | AvgRt    | RT     | Corr1 | Corr2    | %Rsd       | Lvl1  | Lvl2  | Lvl3  | Lvl4            | Lvl5  | Lvl6               | Lvl7  | Lvl8  | Lvl9  |       |  |  |  |  |
| Hexachlorocyclopenta             | 1          | 0  | Qua | 0.1966         | 0.0508          | 0.0874   | 0.1670             | 0.2322 | 0.2512     | 0.2685 | 0.2510         |        | 0.1887   | 5.7    | 0.990 | 0.995    | 4.3        | 0.05  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,4,6-Trichlorophenol            | 1          | 0  | Qua | 0.3356         | 0.3205          | 0.2713   | 0.3391             | 0.3641 | 0.3563     | 0.3471 | 0.3306         |        | 0.3337   | 6.7    | 0.997 | 0.999    | 8.6        | 0.20  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,4,5-Trichlorophenol            | 1          | 0  | Qua | 0.3415         | 0.3446          | 0.2925   | 0.3705             | 0.3648 | 0.3779     | 0.3822 | 0.3562         |        | 0.3547   | 7.1    | 0.997 | 0.998    | 8.1        | 0.20  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2-Fluorobiphenyl                 | 1          | 0  | Qua | 1.2471         | 1.4413          | 1.1571   | 1.3128             | 1.2871 | 1.2663     | 1.3061 | 1.2273         |        | 1.2877   | 7.4    | 0.999 | 0.999    | 6.4        |       | 25.00 | 1.00  | 5.00            | 10.00 | 40.00              | 60.00 | 80.00 | 98.00 |       |  |  |  |  |
| 2-Chloronaphthalene              | 1          | 0  | Qua | 1.0298         | 1.2707          | 0.9270   | 1.0509             | 1.0580 | 1.0795     | 1.0460 | 0.9877         |        | 1.0678   | 8.5    | 0.997 | 0.999    | 9.4        | 0.80  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 1,4-Dimethylnaphthale            | 1          | 0  | Qua | 0.9301         | 1.1310          | 0.8336   | 0.9664             | 0.8947 | 0.8151     | 0.7401 | 0.6628         |        | 0.8728   | 8.13   | 0.984 | 0.999    | 17         |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Dimethylnaphthalenes             | 1          | 0  | Qua | 0.9301         | 1.1310          | 0.8336   | 0.9664             | 0.8947 | 0.8151     | 0.7401 | 0.6628         |        | 0.8728   | 8.13   | 0.984 | 0.999    | 17         |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Diphenyl Ether                   | 1          | 0  | Qua | 0.7971         | 0.8963          | 0.7002   | 0.8074             | 0.8258 | 0.7968     | 0.7571 | 0.6796         |        | 0.7837   | 9.1    | 0.989 | 0.998    | 8.9        |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2-Nitroaniline                   | 1          | 0  | Qua | 0.3804         | 0.3681          | 0.3120   | 0.3959             | 0.3856 | 0.3907     | 0.3873 | 0.3824         |        | 0.3757   | 9.3    | 1.00  | 1.00     | 7.2        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Coumarin                         | 1          | 0  | Qua | 0.4021         | 0.4793          | 0.3507   | 0.4279             | 0.4159 | 0.3812     | 0.3494 | 0.3049         |        | 0.3898   | 8.12   | 0.976 | 0.999    | 14         |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Acenaphthylene                   | 1          | 0  | Qua | 1.5715         | 1.7053          | 1.3744   | 1.5893             | 1.5918 | 1.5445     | 1.5849 | 1.5011         |        | 1.5682   | 8.21   | 0.999 | 0.999    | 6.0        | 0.90  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Dimethylphthalate                | 1          | 0  | Qua | 1.2354         | 1.3241          | 1.0966   | 1.2762             | 1.2283 | 1.2365     | 1.2426 | 1.2290         |        | 1.2387   | 8.07   | 1.00  | 1.00     | 5.2        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,6-Dinitrotoluene               | 1          | 0  | Qua | 0.2777         | 0.2376          | 0.2508   | 0.2947             | 0.2760 | 0.2550     | 0.2373 | 0.2242         |        | 0.2578   | 8.13   | 0.991 | 1.00     | 9.4        | 0.20  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Acenaphthene                     | 1          | 0  | Qua | 1.0818         | 1.2231          | 1.0239   | 1.1839             | 1.0898 | 1.0931     | 1.0696 | 1.0233         |        | 1.1083   | 8.36   | 0.998 | 1.00     | 6.5        | 0.90  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 3-Nitroaniline                   | 1          | 0  | Qua | 0.2932         | 0.2879          | 0.2036   | 0.3167             | 0.3069 | 0.2916     | 0.2767 | 0.2642         |        | 0.2808   | 8.28   | 0.995 | 0.999    | 12         | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,4-Dinitrophenol                | 1          | 0  | Qua | 0.1350         | 0.0621          | 0.0942   | 0.1700             | 0.1657 | 0.2035     | 0.2066 |                |        | 0.1518   | 8.38   | 0.992 | 0.999    | 37         | 0.01  | 50.00 |       | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Dibenzofuran                     | 1          | 0  | Qua | 1.5224         | 1.7385          | 1.4063   | 1.6233             | 1.6053 | 1.5446     | 1.5149 | 1.4965         | 1.8022 |          | 1.5885 | 8.52  | 0.999    | 1.00       | 7.8   | 0.80  | 50.00 | 2.00            | 10.00 | 20.00              | 80.00 | 120.0 | 160.0 | 196.0 |  |  |  |  |
| 2,4-Dinitrotoluene               | 1          | 0  | Qua | 0.3895         | 0.3299          | 0.3054   | 0.3898             | 0.4092 | 0.4022     | 0.4134 | 0.4026         |        | 0.3808   | 8.49   | 1.00  | 1.00     | 11         | 0.20  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 4-Nitrophenol                    | 1          | 0  | Qua | 0.2093         | 0.1318          | 0.1411   | 0.2024             | 0.2275 | 0.2389     | 0.2363 | 0.2436         |        | 0.2048   | 8.42   | 0.999 | 1.00     | 22         | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,3,4,6-Tetrachlorophe           | 1          | 0  | Qua | 0.3144         | 0.3289          | 0.2508   | 0.3123             | 0.3081 | 0.3159     | 0.3199 | 0.3156         |        | 0.3088   | 8.63   | 0.999 | 0.999    | 7.8        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Fluorene                         | 1          | 0  | Qua | 1.2227         | 1.4858          | 1.0918   | 1.2693             | 1.2969 | 1.2572     | 1.2483 | 1.2041         |        | 1.2688   | 8.85   | 0.999 | 1.00     | 8.8        | 0.90  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 4-Chlorophenyl-phenyl            | 1          | 0  | Qua | 0.5903         | 0.6732          | 0.5160   | 0.6290             | 0.6134 | 0.5998     | 0.5969 | 0.5889         |        | 0.6018   | 8.83   | 1.00  | 1.00     | 7.3        | 0.40  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Diethylphthalate                 | 1          | 0  | Qua | 1.2048         | 1.2978          | 1.0497   | 1.2739             | 1.2542 | 1.2241     | 1.2297 | 1.2201         |        | 1.2287   | 8.70   | 1.00  | 1.00     | 6.2        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 4-Nitroaniline                   | 1          | 0  | Qua | 0.3377         | 0.2393          | 0.2605   | 0.3325             | 0.3472 | 0.3568     | 0.3621 | 0.3661         |        | 0.3258   | 8.86   | 1.00  | 1.00     | 15         | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Atrazine                         | 1          | 0  | Qua | 0.3898         | 0.4477          | 0.3377   | 0.4270             | 0.4113 | 0.4099     | 0.4281 | 0.4218         |        | 0.4099   | 9.47   | 0.999 | 0.999    | 8.2        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 4,6-Dinitro-2-methylph           | 1          | 0  | Qua | 0.1128         | 0.0669          | 0.0967   | 0.1271             | 0.1315 | 0.1326     | 0.1334 |                |        | 0.1148   | 8.88   | 0.999 | 1.00     | 22         | 0.01  | 50.00 |       | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| n-Nitrosodiphenylamin            | 1          | 0  | Qua | 0.5905         | 0.6958          | 0.5374   | 0.6104             | 0.6250 | 0.5951     | 0.5976 | 0.5725         |        | 0.6038   | 8.94   | 0.999 | 0.999    | 7.6        | 0.01  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 2,4,6-Trichlorophenol            | 1          | 0  | Qua | 0.0916         | 0.0926          | 0.0755   | 0.0828             | 0.0946 | 0.0917     | 0.0964 | 0.0897         |        | 0.0894   | 9.08   | 0.997 | 0.998    | 7.7        |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 1,2-Diphenylhydrazine            | 1          | 0  | Qua | 0.7055         | 0.7464          | 0.5832   | 0.7208             | 0.7961 | 0.7771     | 0.7929 | 0.7640         |        | 0.7368   | 9.88   | 0.998 | 0.998    | 9.5        |       | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| 4-Bromophenyl-phenyl             | 1          | 0  | Qua | 0.1895         | 0.1932          | 0.1631   | 0.1812             | 0.1911 | 0.1903     | 0.1910 | 0.1822         |        | 0.1859   | 9.32   | 0.999 | 0.999    | 5.4        | 0.10  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Hexachlorobenzene                | 1          | 0  | Qua | 0.2032         | 0.2576          | 0.1645   | 0.1958             | 0.1994 | 0.1947     | 0.1903 | 0.1859         |        | 0.1999   | 9.39   | 0.992 | 0.993    | 13         | 0.10  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| N-Octadecane                     | 1          | 0  | Qua | 0.3603         | 0.3291          | 0.3040   | 0.3470             | 0.3612 | 0.3541     | 0.3373 | 0.3142         |        | 0.3389   | 9.64   | 0.994 | 0.999    | 6.3        | 0.05  | 50.00 | 2.00  | 10.00           | 20.00 | 80.00              | 120.0 | 160.0 | 196.0 |       |  |  |  |  |
| Pentachlorophenol                | 1          | 0  | Qua | 0.0967         | 0.0538          | 0.0682   | 0.1070             | 0.1157 | 0.1180     | 0.1194 |                |        | 0.097097 |        |       |          |            |       |       |       |                 |       |                    |       |       |       |       |  |  |  |  |

| Level #:                | Data File: | Cal Identifier: | Analysis Date/Time | Level #: | Data File: | Cal Identifier: | Analysis Date/Time | Calibration Level Concentrations |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
|-------------------------|------------|-----------------|--------------------|----------|------------|-----------------|--------------------|----------------------------------|--------|--------|--------|------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|--|
|                         |            |                 |                    |          |            |                 |                    | Lvl1                             | Lvl2   | Lvl3   | Lvl4   | Lvl5 | Lvl6  | Lvl7  | Lvl8  | Lvl9  |      |       |      |       |       |       |       |       |       |  |
| 1                       | 10M71237.D | CAL BNA@50PPM   | 10/08/18 11:51     | 2        | 10M71230.D | CAL BNA@2PPM    | 10/08/18 09:15     |                                  |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
| 3                       | 10M71229.D | CAL BNA@10PPM   | 10/08/18 08:51     | 4        | 10M71235.D | CAL BNA@20PPM   | 10/08/18 11:06     |                                  |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
| 5                       | 10M71234.D | CAL BNA@80PPM   | 10/08/18 10:44     | 6        | 10M71233.D | CAL BNA@120PPM  | 10/08/18 10:22     |                                  |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
| 7                       | 10M71232.D | CAL BNA@160PPM  | 10/08/18 10:00     | 8        | 10M71231.D | CAL BNA@196PPM  | 10/08/18 09:38     |                                  |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
| 9                       | 10M71236.D | CAL BNA@5PPM    | 10/08/18 11:28     |          |            |                 |                    |                                  |        |        |        |      |       |       |       |       |      |       |      |       |       |       |       |       |       |  |
| Compound                | Col        | Mr              | Fil:               | RF1      | RF2        | RF3             | RF4                | RF5                              | RF6    | RF7    | RF8    | RF9  | AvgRt | RT    | Corr1 | Corr2 | %Rsd |       |      |       |       |       |       |       |       |  |
| 4,4'-DDE                | 1          | 0               | Avg                | 0.2406   | 0.2750     | 0.2094          | 0.2322             | 0.2418                           | 0.2678 | 0.2769 | 0.2901 | ---- | 0.254 | 11.54 | 0.996 | 1.00  | 11   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 4,4'-DDD                | 1          | 0               | Avg                | 0.4141   | 0.4161     | 0.3306          | 0.4096             | 0.4292                           | 0.4717 | 0.4747 | 0.5091 | ---- | 0.432 | 11.94 | 0.994 | 0.999 | 13   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Butylbenzylphthalate    | 1          | 0               | Qua                | 0.5135   | 0.4061     | 0.3742          | 0.4971             | 0.5645                           | 0.6092 | 0.6329 | 0.6921 | ---- | 0.536 | 12.18 | 0.993 | 1.00  | 21   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 4,4'-DDT                | 1          | 0               | Avg                | 0.3676   | 0.3388     | 0.2963          | 0.3567             | 0.3949                           | 0.4083 | 0.4362 | 0.4647 | ---- | 0.383 | 12.29 | 0.993 | 1.00  | 14   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 3,3'-Dichlorobenzidine  | 1          | 0               | Qua                | 0.3712   | 0.3652     | 0.2515          | 0.3786             | 0.3613                           | 0.3709 | 0.3592 | 0.3564 | ---- | 0.352 | 12.82 | 0.999 | 1.00  | 12   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzolanthracene        | 1          | 0               | Avg                | 1.0377   | 1.2432     | 0.9244          | 1.0645             | 1.0764                           | 1.1433 | 1.1873 | 1.2015 | ---- | 1.11  | 12.85 | 0.998 | 1.00  | 9.4  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Chrysene                | 1          | 0               | Avg                | 1.0303   | 1.2216     | 0.8897          | 1.0416             | 1.0424                           | 1.1118 | 1.1459 | 1.2355 | ---- | 1.09  | 12.89 | 0.995 | 1.00  | 10   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| bis(2-Ethylhexyl)phthal | 1          | 0               | Avg                | 0.7455   | 0.7080     | 0.5999          | 0.7392             | 0.7806                           | 0.8294 | 0.8522 | 0.8665 | ---- | 0.765 | 12.87 | 0.997 | 1.00  | 11   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Di-n-octylphthalate     | 1          | 0               | Qua                | 1.2581   | 1.0359     | 0.9919          | 1.1747             | 1.3239                           | 1.3908 | 1.3765 | 1.3330 | ---- | 1.24  | 13.62 | 0.999 | 0.999 | 12   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzolbifluoranthene    | 1          | 0               | Avg                | 1.0814   | 1.2397     | 0.8877          | 1.0369             | 1.1498                           | 1.1263 | 1.0829 | 1.0793 | ---- | 1.09  | 14.07 | 0.999 | 0.999 | 9.3  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzoklufluoranthene    | 1          | 0               | Avg                | 1.0456   | 1.2451     | 0.9256          | 1.0853             | 1.0814                           | 1.0734 | 1.1124 | 0.9865 | ---- | 1.07  | 14.10 | 0.993 | 0.996 | 8.7  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzolaloyene           | 1          | 0               | Avg                | 1.0499   | 1.1916     | 0.8958          | 1.0233             | 1.0834                           | 1.0913 | 1.0690 | 1.0284 | ---- | 1.05  | 14.44 | 0.999 | 0.999 | 7.9  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Indenofl, 2,3-cdlyren   | 1          | 0               | Avg                | 1.1198   | 1.2702     | 0.9614          | 1.0986             | 1.1066                           | 1.1194 | 1.1236 | 1.0766 | ---- | 1.11  | 15.86 | 0.999 | 0.999 | 7.6  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Dibenzola, hlanthracen  | 1          | 0               | Avg                | 0.9448   | 0.9525     | 0.8351          | 0.8986             | 0.9505                           | 0.9529 | 0.9372 | 0.8905 | ---- | 0.920 | 15.87 | 0.998 | 0.999 | 4.6  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzola, h, llybervlene | 1          | 0               | Avg                | 0.9532   | 1.1477     | 0.8201          | 0.9510             | 0.9855                           | 0.9970 | 0.9846 | 0.9997 | ---- | 0.980 | 16.25 | 1.00  | 1.00  | 9.1  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria (if applicable)

## Note:

Avg Rsd: 10.6

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

SampleID : CAL BNA@50PPM  
Data File: 10M71237.D  
Acq On : 10/ 8/18 11:51

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:08  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 45717      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 91441      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 347375     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 216810     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 377671     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 382304     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 369171     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 130322     | 54.15   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 54.15%  |       |          |
| 16) Phenol-d5                  | 5.583  | 99   | 181064     | 51.38   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 51.38%  |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 25387      | 22.06   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 44.12%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 168993     | 24.14   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.28%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 43257      | 49.93   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 49.93%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 162331     | 24.34   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.68%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 52367      | 45.5973 | ng    | 88       |
| 9) Pyridine                    | 3.256  | 79   | 130117     | 43.1946 | ng    | 71       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 74938      | 45.3098 | ng    | 77       |
| 12) Benzaldehyde               | 5.530  | 77   | 70134      | 43.8308 | ng    | 67       |
| 13) Aniline                    | 5.621  | 93   | 185917     | 54.4436 | ng    | 75       |
| 14) Pentachloroethane          | 5.663  | 117  | 48118      | 47.6375 | ng    | 68       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 130716     | 47.5658 | ng    | 79       |
| 17) Phenol                     | 5.599  | 94   | 185139     | 48.3720 | ng    | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 147960     | 51.7011 | ng    | 75       |
| 19) N-Decane                   | 5.754  | 57   | 116862     | 45.5087 | ng    | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 158254     | 49.8495 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 162659     | 47.1612 | ng    | 99       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 160994     | 49.0120 | ng    | 97       |
| 24) Benzyl alcohol             | 6.011  | 108  | 92784      | 48.7459 | ng    | 76       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 153799     | 49.2382 | ng    | 80       |
| 26) 2-Methylphenol             | 6.097  | 108  | 131338     | 46.1474 | ng    | 98       |
| 27) Acetophenone               | 6.225  | 105  | 198016     | 48.7818 | ng    | 72       |
| 28) Hexachloroethane           | 6.305  | 117  | 66970      | 49.4736 | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 92968      | 44.9208 | ng    | 79       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 134849     | 47.1852 | ng    | 98       |
| 33) Nitrobenzene               | 6.359  | 77   | 147375     | 44.4097 | ng    | 81       |
| 34) Isophorone                 | 6.541  | 82   | 252736     | 44.0425 | ng    | 86       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 81702      | 46.4798 | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 145143     | 47.1134 | ng    | 99       |
| 37) Benzoic Acid               | 6.712  | 105  | 117202     | 55.0885 | ng    | 85       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 162040     | 44.3067 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 130119     | 47.3942 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 143765     | 48.2929 | ng    | 98       |
| 41) Naphthalene                | 6.915  | 128  | 449648     | 46.8628 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 169659m    | 45.3969 | ng    |          |
| 43) Hexachlorobutadiene        | 7.000  | 225  | 80902      | 51.1580 | ng    | 94       |
| 44) Caprolactam                | 7.225  | 113  | 49068      | 46.0620 | ng    | 62       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 120560     | 44.1507 | ng    | 74       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 293756     | 44.7266 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 292495     | 45.6763 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 581411m    | 90.0162 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 372079     | 44.3448 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.583  | 216  | 146152     | 47.4642 | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 53295      | 39.7986 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 90955      | 49.1363 | ng    | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 92575      | 45.7878 | ng    | 100      |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 279089     | 46.6850 | ng    | 94       |
| 57) 1,4-Dimethylnaphthalene    | 8.134  | 156  | 252091     | 49.5927 | ng    | 85       |
| 58) Dimethylnaphthalenes (...) | 8.134  | 156  | 252091     | 49.5927 | ng    | 85       |
| 59) Diphenyl Ether             | 7.910  | 170  | 216025     | 47.0289 | ng    | 81       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 103105     | 48.1926 | ng    | 36       |
| 61) Coumarin                   | 8.118  | 146  | 108998     | 43.3886 | ng    | 60       |
| 62) Acenaphthylene             | 8.215  | 152  | 425899     | 45.7228 | ng    | 99       |
| 63) Dimethylphthalate          | 8.070  | 163  | 334831     | 48.8042 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.134  | 165  | 75278      | 48.3397 | ng    | 66       |
| 65) Acenaphthene               | 8.364  | 153  | 293183     | 46.3417 | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 10M71237.D  
 Acq On : 10/ 8/18 11:51

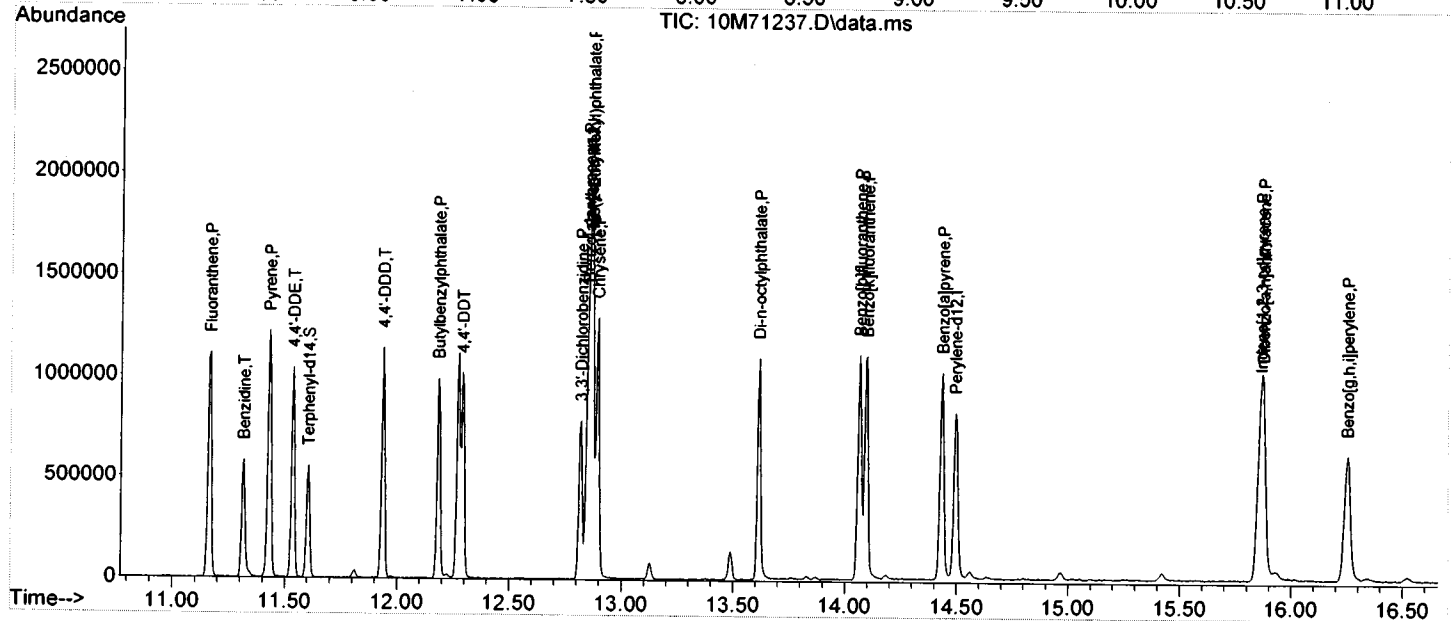
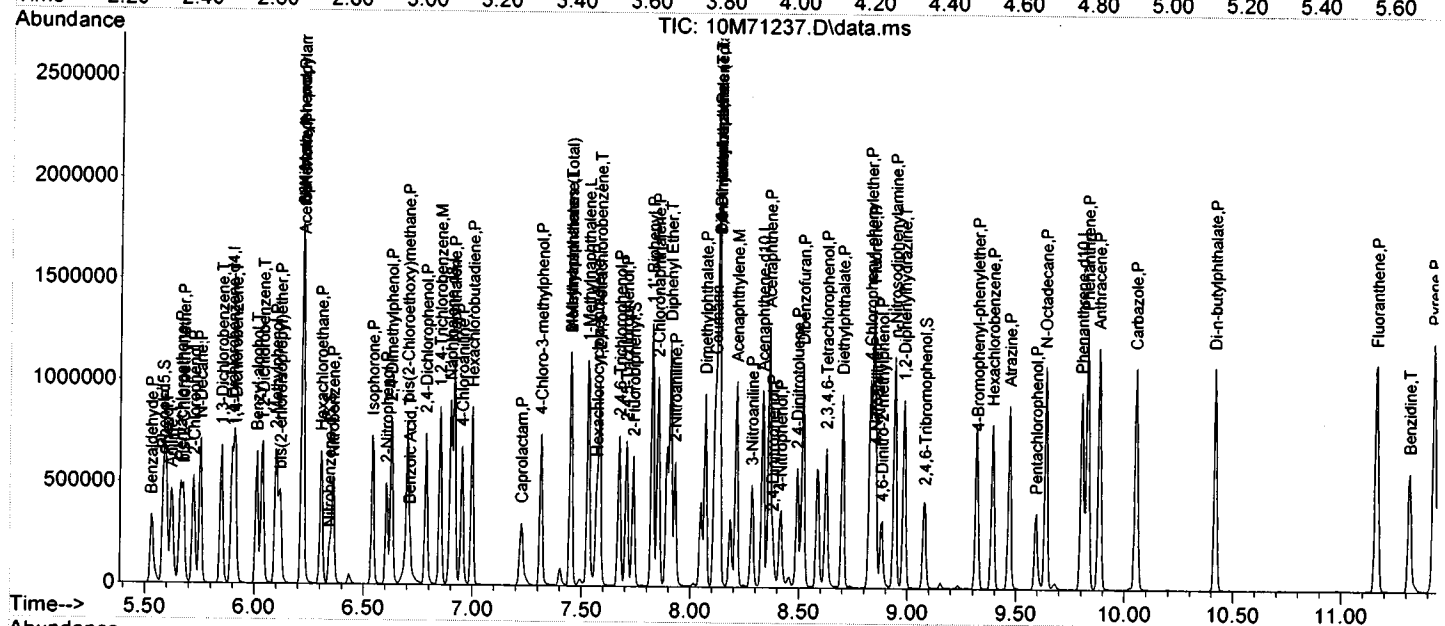
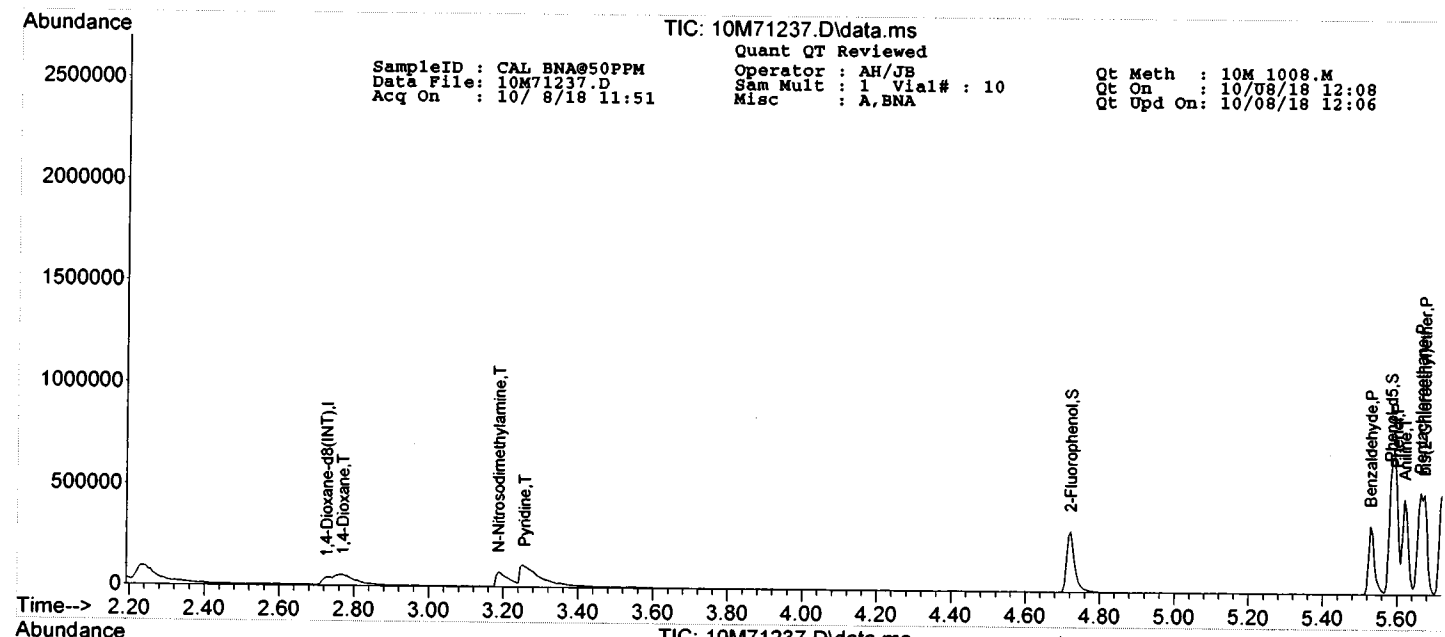
Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:08  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 79472    | 48.0860 | ng    | 75       |
| 67) 2,4-Dinitrophenol          | 8.380  | 184  | 36604    | 43.7134 | ng    | 30       |
| 68) Dibenzofuran               | 8.520  | 168  | 412590   | 48.1360 | ng    | 87       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 105566   | 50.1306 | ng    | 65       |
| 70) 4-Nitrophenol              | 8.418  | 65   | 56734    | 41.2720 | ng    | 42       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.626  | 232  | 85222    | 54.0762 | ng    | 83       |
| 72) Fluorene                   | 8.846  | 166  | 331382   | 46.9626 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 159990   | 47.7558 | ng    | 81       |
| 74) Diethylphthalate           | 8.701  | 149  | 326517   | 47.0733 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.856  | 138  | 91528    | 46.6464 | ng    | 90       |
| 76) Atrazine                   | 9.472  | 200  | 105643   | 49.1706 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.883  | 198  | 53278    | 47.7283 | ng    | 58       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 278793   | 45.4573 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 333058   | 47.2520 | ng    | 86       |
| 82) 4-Bromophenyl-phenylether  | 9.322  | 248  | 89495    | 47.8965 | ng    | 85       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 95960    | 48.4180 | ng    | 72       |
| 84) N-Octadecane               | 9.637  | 57   | 170112   | 43.1868 | ng    | 71       |
| 85) Pentachlorophenol          | 9.595  | 266  | 45678    | 54.5512 | ng    | 91       |
| 86) Phenanthrene               | 9.830  | 178  | 500249   | 47.5723 | ng    | 99       |
| 87) Anthracene                 | 9.883  | 178  | 505103   | 47.1067 | ng    | 99       |
| 88) Carbazole                  | 10.055 | 167  | 468713   | 47.2938 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 560951   | 47.4675 | ng    | 98       |
| 90) Fluoranthene               | 11.167 | 202  | 531817   | 48.5826 | ng    | 85       |
| 92) Pyrene                     | 11.429 | 202  | 546923   | 46.7639 | ng    | 83       |
| 93) Benzidine                  | 11.317 | 184  | 242154   | 50.4583 | ng    | 80       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 115007   | 51.7491 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 197925   | 50.9751 | ng    | 91       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 245414   | 44.9422 | ng    | 79       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 175673   | 50.4647 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.820 | 252  | 177408   | 49.4403 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 495904   | 45.9269 | ng    | 97       |
| 101) Chrysene                  | 12.895 | 228  | 492361   | 47.8802 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 356274   | 46.9046 | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 580567   | 45.7140 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 499050   | 47.4679 | ng    | 93       |
| 106) Benzo[k]fluoranthene      | 14.098 | 252  | 482512   | 46.8382 | ng    | 92       |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 484499   | 47.8367 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 516782   | 47.0738 | ng    | 85       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 436023   | 47.0007 | ng    | 90       |
| 110) Benzo[g,h,i]perylene      | 16.254 | 276  | 439905   | 46.6103 | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@2PPM  
Data File: 10M71230.D  
Acq On : 10/ 8/18 09:15

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| Internal Standards             |        |      |          |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 46994    | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 93036    | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 347884   | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 222068   | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 396093   | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 408904   | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 391574   | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |        |       |          |
| 11) 2-Fluorophenol             | 4.727  | 112  | 6188m    | 2.50   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 2.50% |          |
| 16) Phenol-d5                  | 5.588  | 99   | 8282     | 2.29   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 2.29% |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 816      | 0.71   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 1.42% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 8002     | 1.12   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 2.24% |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 1835     | 2.04   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 2.04% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 7693     | 1.08   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 2.16% |          |
| Target Compounds               |        |      |          |        |       |          |
| 8) 1,4-Dioxane                 | 2.775  | 88   | 2299m    | 1.9474 | ng    | Qvalue   |
| 9) Pyridine                    | 3.358  | 79   | 6481m    | 2.0930 | ng    |          |
| 10) N-Nitrosodimethylamine     | 3.246  | 74   | 3248m    | 1.9105 | ng    |          |
| 12) Benzaldehyde               | 5.535  | 77   | 2469     | 1.5011 | ng    | 65       |
| 13) Aniline                    | 5.626  | 93   | 5496     | 1.5657 | ng    | 94       |
| 14) Pentachloroethane          | 5.663  | 117  | 2353     | 2.2662 | ng    | 79       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 6490     | 2.2974 | ng    | 96       |
| 17) Phenol                     | 5.599  | 94   | 7356     | 1.8697 | ng    | 84       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 6276     | 2.1334 | ng    | 71       |
| 19) N-Decane                   | 5.749  | 57   | 5404     | 2.0473 | ng    | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 7810     | 2.3933 | ng    | 86       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 8241     | 2.3484 | ng    | 82       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 8271     | 2.4748 | ng    | 96       |
| 24) Benzyl alcohol             | 6.016  | 108  | 3614     | 1.8661 | ng    | 91       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 7325     | 2.3049 | ng    | 79       |
| 26) 2-Methylphenol             | 6.102  | 108  | 6646     | 2.2951 | ng    | 74       |
| 27) Acetophenone               | 6.225  | 105  | 9182     | 2.2232 | ng    | 67       |
| 28) Hexachloroethane           | 6.305  | 117  | 2390m    | 1.7353 | ng    |          |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 3767     | 1.7890 | ng    | 82       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 5963     | 2.0732 | ng    | 87       |
| 33) Nitrobenzene               | 6.359  | 77   | 6278     | 1.8890 | ng    | 69       |
| 34) Isophorone                 | 6.541  | 82   | 11395    | 1.9828 | ng    | 86       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 3368     | 1.9132 | ng    | 84       |
| 36) 2,4-Dimethylphenol         | 6.631  | 107  | 7237     | 2.3789 | ng    | 94       |
| 37) Benzoic Acid               | 0.000  |      | 0        | N.D. d |       |          |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 7013     | 1.9148 | ng    | 93       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 5912     | 2.1502 | ng    | 77       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 6271     | 2.1034 | ng    | 90       |
| 41) Naphthalene                | 6.915  | 128  | 22475    | 2.3342 | ng    | 93       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 5935     | 1.4632 | ng    | 88       |
| 43) Hexachlorobutadiene        | 7.000  | 225  | 3712     | 2.3438 | ng    | 88       |
| 44) Caprolactam                | 7.198  | 113  | 1555     | 1.4576 | ng    | 44       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 4763     | 1.7417 | ng    | 59       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 14287    | 2.1721 | ng    | 94       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 14381    | 2.2425 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 28855m   | 4.4609 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 18235    | 2.1701 | ng    | 90       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.583  | 216  | 7563     | 2.3980 | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 564      | 0.4355 | ng    | 58       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 3559m    | 1.8771 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 3827     | 1.8480 | ng    | 92       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 14110m   | 2.3044 | ng    |          |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 12558    | 2.4120 | ng    | 80       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 12558    | 2.4120 | ng    | 80       |
| 59) Diphenyl Ether             | 7.910  | 170  | 9952     | 2.1153 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 4088     | 1.8655 | ng    | 20       |
| 61) Coumarin                   | 8.118  | 146  | 5322     | 2.0684 | ng    | 79       |
| 62) Acenaphthylene             | 8.209  | 152  | 18935    | 1.9847 | ng    | 94       |
| 63) Dimethylphthalate          | 8.065  | 163  | 14703    | 2.0923 | ng    | 88       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 2639     | 1.6545 | ng    | 92       |
| 65) Acenaphthene               | 8.359  | 153  | 13581    | 2.0958 | ng    | 96       |



## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM  
 Data File: 10M71230.D  
 Acq On : 10/ 8/18 09:15

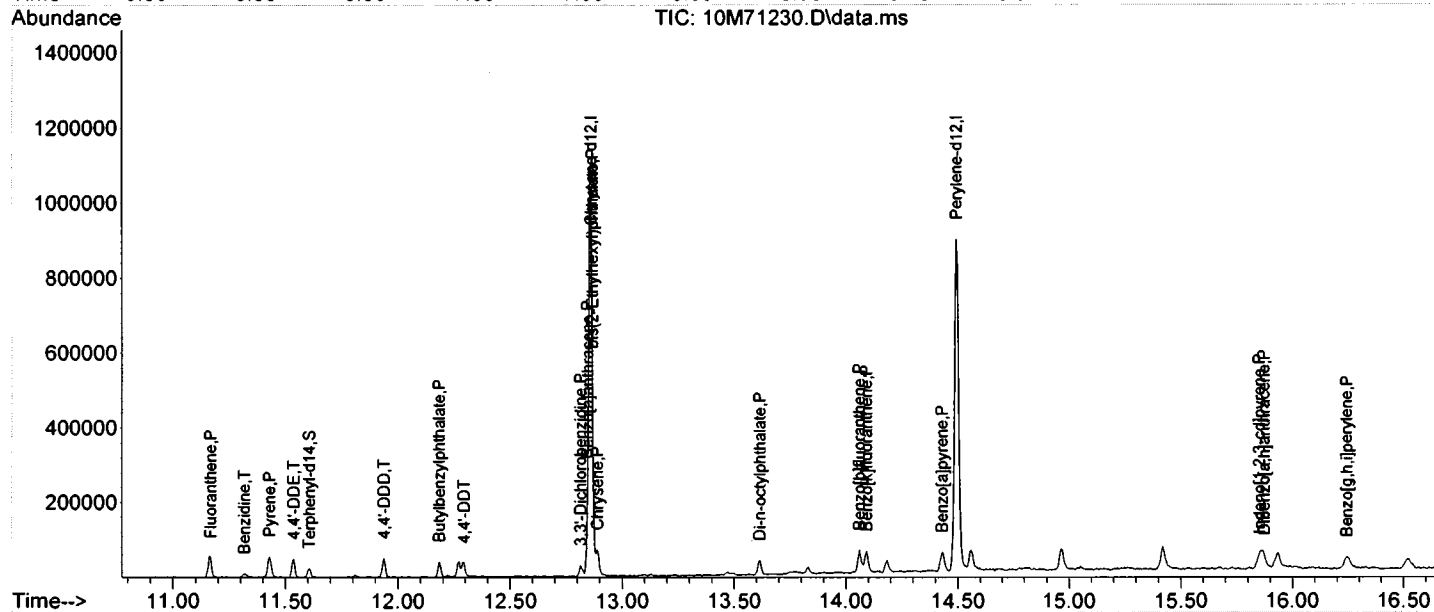
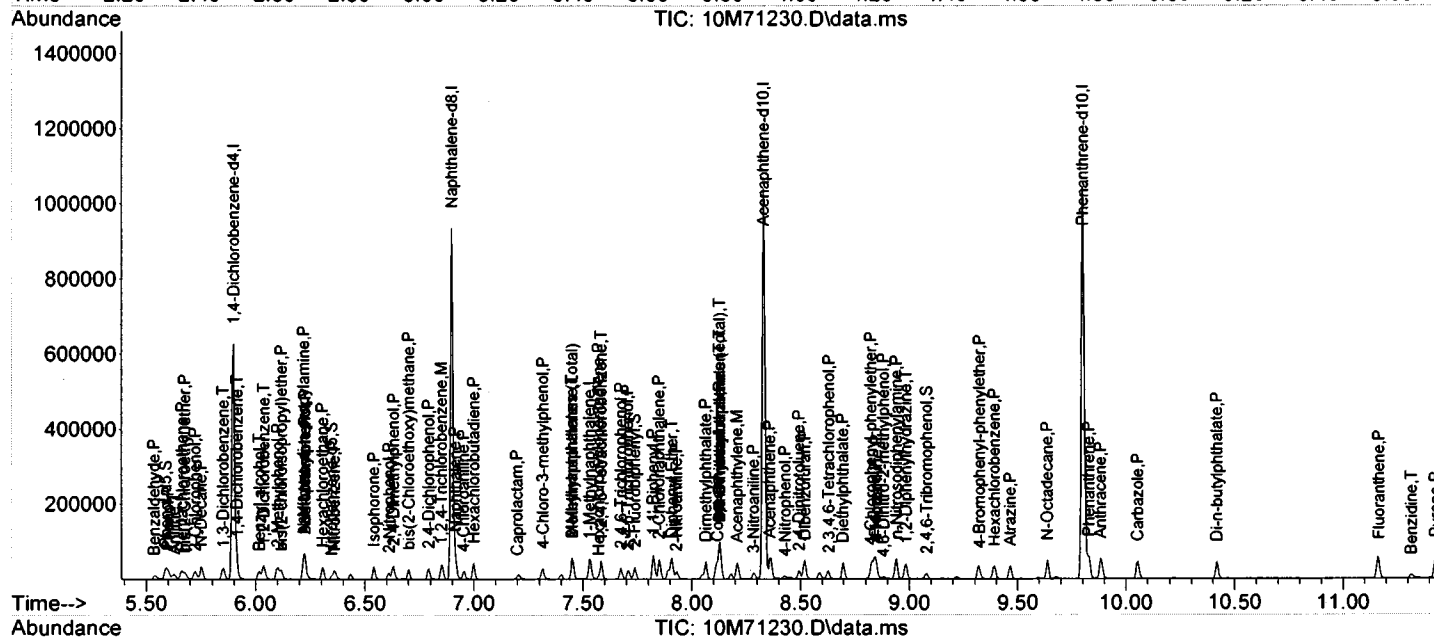
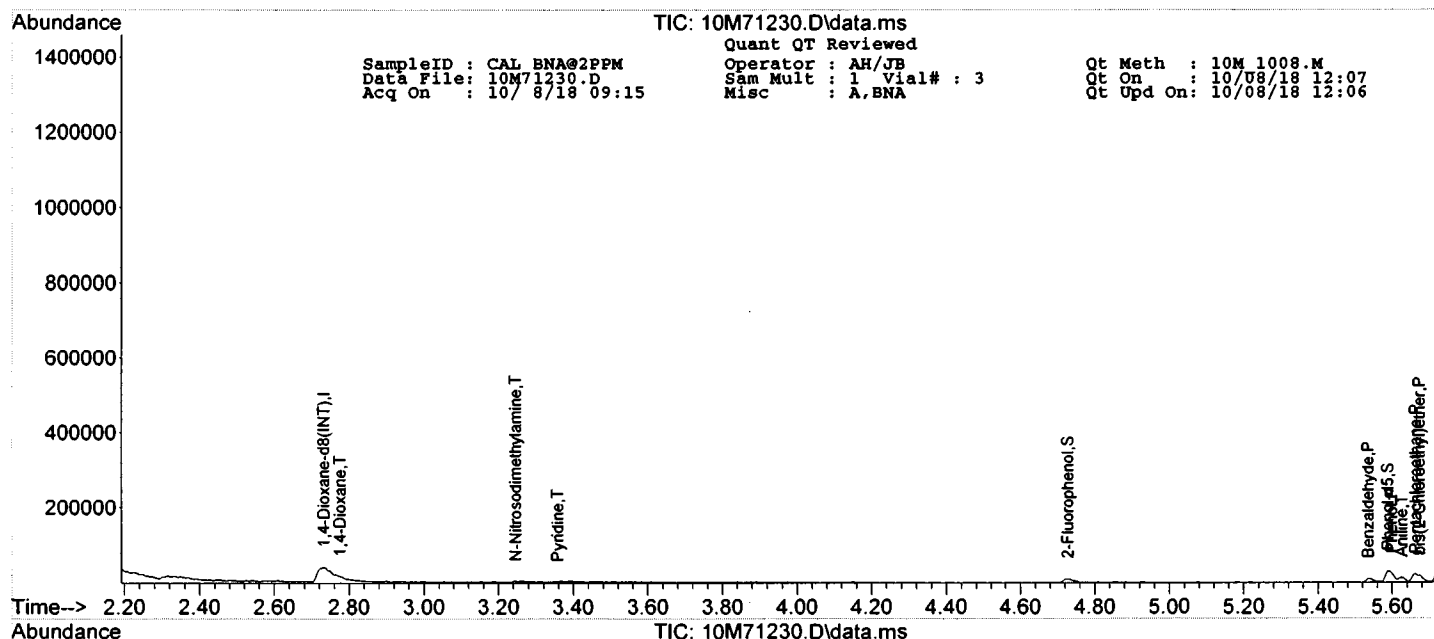
Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.284  | 138  | 3197     | 1.8886 | ng    | 77       |
| 67)  | 2,4-Dinitrophenol         | 0.000  |      | 0        | N.D.   |       |          |
| 68)  | Dibenzofuran              | 8.520  | 168  | 19304    | 2.1918 | ng    | 90       |
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165  | 3663     | 1.6983 | ng    | 61       |
| 70)  | 4-Nitrophenol             | 8.429  | 65   | 1464     | 1.0398 | ng    | 85       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.632  | 232  | 3652     | 2.2624 | ng    | 70       |
| 72)  | Fluorene                  | 8.846  | 166  | 16498    | 2.2827 | ng    | 93       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.824  | 204  | 7475     | 2.1784 | ng    | 75       |
| 74)  | Diethylphthalate          | 8.696  | 149  | 14410    | 2.0283 | ng    | 90       |
| 75)  | 4-Nitroaniline            | 8.851  | 138  | 2657     | 1.3221 | ng    | 81       |
| 76)  | Atrazine                  | 9.466  | 200  | 4971     | 2.2589 | ng    | 81       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.883  | 198  | 886      | 0.8077 | ng    | 27       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169  | 13781    | 2.1425 | ng    | 91       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77   | 14784    | 1.9999 | ng    | 77       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248  | 3828     | 1.9534 | ng    | 75       |
| 83)  | Hexachlorobenzene         | 9.391  | 284  | 5102     | 2.4546 | ng    | 63       |
| 84)  | N-Octadecane              | 9.637  | 57   | 6518     | 1.5778 | ng    | 56       |
| 85)  | Pentachlorophenol         | 0.000  |      | 0        | N.D. d |       |          |
| 86)  | Phenanthrene              | 9.830  | 178  | 24384    | 2.2110 | ng    | 94       |
| 87)  | Anthracene                | 9.883  | 178  | 24731    | 2.1992 | ng    | 93       |
| 88)  | Carbazole                 | 10.055 | 167  | 20656    | 1.9873 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 21923    | 1.7596 | ng    | 99       |
| 90)  | Fluoranthene              | 11.167 | 202  | 24958    | 2.1739 | ng    | 86       |
| 92)  | Pyrene                    | 11.429 | 202  | 26112    | 2.0874 | ng    | 82       |
| 93)  | Benzidine                 | 11.317 | 184  | 5423     | 1.0488 | ng    | 75       |
| 95)  | 4,4'-DDE                  | 11.536 | 246  | 5623     | 2.3656 | ng    | 91       |
| 96)  | 4,4'-DDD                  | 11.937 | 235  | 8508     | 2.0487 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.183 | 149  | 8304     | 1.4218 | ng    | 82       |
| 98)  | 4,4'-DDT                  | 12.296 | 235  | 6927     | 1.8604 | ng    | 96       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.814 | 252  | 7467     | 1.8566 | ng    | 73       |
| 100) | Benzo[a]anthracene        | 12.847 | 228  | 25419    | 2.2010 | ng    | 97       |
| 101) | Chrysene                  | 12.889 | 228  | 24977    | 2.2709 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 14476    | 1.7818 | ng    | 97       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 20283    | 1.5057 | ng    | 96       |
| 105) | Benzo[b]fluoranthene      | 14.061 | 252  | 24272m   | 2.1766 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 14.093 | 252  | 24378m   | 2.2310 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.430 | 252  | 23331    | 2.1718 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.852 | 276  | 24870    | 2.1358 | ng    | 67       |
| 109) | Dibenzo[a,h]anthracene    | 15.874 | 278  | 18649    | 1.8952 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 16.243 | 276  | 22471    | 2.2447 | ng    | 94       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@10PPM  
Data File: 10M71229.D  
Acq On : 10/ 8/18 08:51

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| Internal Standards             |        |      |          |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.738  | 96   | 50609    | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 99323    | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 356054   | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 223314   | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 398598   | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 410428   | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 388983   | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |         |       |          |
| 11) 2-Fluorophenol             | 4.727  | 112  | 23998m   | 9.01    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 9.01% |          |
| 16) Phenol-d5                  | 5.583  | 99   | 31536    | 8.08    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.08% |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 4262     | 3.61    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 7.22% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 32300    | 4.48    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.96% |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 7525     | 8.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.31% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 29871    | 4.17    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.34% |          |
| Target Compounds               |        |      |          |         |       |          |
| 8) 1,4-Dioxane                 | 2.764  | 88   | 10899    | 8.5727  | ng    | 58       |
| 9) Pyridine                    | 3.331  | 79   | 14917    | 4.4733  | ng    | 42       |
| 10) N-Nitrosodimethylamine     | 3.214  | 74   | 12521    | 6.8388  | ng    | 82       |
| 12) Benzaldehyde               | 5.530  | 77   | 15376    | 8.6805  | ng    | 73       |
| 13) Aniline                    | 5.621  | 93   | 27869m   | 7.3722  | ng    |          |
| 14) Pentachloroethane          | 5.658  | 117  | 9327     | 8.3413  | ng    | 83       |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 22375    | 7.3549  | ng    | 75       |
| 17) Phenol                     | 5.594  | 94   | 32088    | 7.5734  | ng    | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 26224    | 8.2776  | ng    | 73       |
| 19) N-Decane                   | 5.749  | 57   | 21846    | 7.6850  | ng    | 74       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 30560    | 8.6958  | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 31776    | 8.4820  | ng    | 95       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 29929    | 8.3883  | ng    | 91       |
| 24) Benzyl alcohol             | 6.011  | 108  | 16646    | 8.0513  | ng    | 73       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 29692    | 8.7514  | ng    | 82       |
| 26) 2-Methylphenol             | 6.097  | 108  | 24558    | 7.9440  | ng    | 87       |
| 27) Acetophenone               | 6.225  | 105  | 36083    | 8.1837  | ng    | 66       |
| 28) Hexachloroethane           | 6.305  | 117  | 12016    | 8.1723  | ng    | 82       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 16960    | 7.5445  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 24223    | 7.8776  | ng    | 98       |
| 33) Nitrobenzene               | 6.359  | 77   | 26839    | 7.8905  | ng    | 76       |
| 34) Isophorone                 | 6.541  | 82   | 44692    | 7.5983  | ng    | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 12327    | 6.8418  | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 28104    | 9.0074  | ng    | 93       |
| 37) Benzoic Acid               | 6.674  | 105  | 8322     | 4.2957  | ng    | 93       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 29851    | 7.9632  | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 24503    | 8.7074  | ng    | 80       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 26586    | 8.7130  | ng    | 89       |
| 41) Naphthalene                | 6.915  | 128  | 83389    | 8.4641  | ng    | 96       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 23756    | 5.7660  | ng    | 89       |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 14500    | 8.9455  | ng    | 97       |
| 44) Caprolactam                | 7.209  | 113  | 7204     | 6.5978  | ng    | 66       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 20845    | 7.4477  | ng    | 83       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 57447    | 8.5335  | ng    | 91       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 54592    | 8.3173  | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 111980m  | 16.9145 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 71969    | 8.3683  | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 28483    | 8.9807  | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 4881     | 3.7292  | ng    | 70       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 15148    | 7.9450  | ng    | 95       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 16331    | 7.8421  | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 51756    | 8.4054  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 46541    | 8.8891  | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 46541    | 8.8891  | ng    | 86       |
| 59) Diphenyl Ether             | 7.910  | 170  | 39094    | 8.2629  | ng    | 79       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 17421    | 7.9056  | ng    | 47       |
| 61) Coumarin                   | 8.113  | 146  | 19580    | 7.5672  | ng    | 53       |
| 62) Acenaphthylene             | 8.209  | 152  | 76734    | 7.9979  | ng    | 98       |
| 63) Dimethylphthalate          | 8.065  | 163  | 61224    | 8.6640  | ng    | 97       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 14003    | 8.7301  | ng    | 78       |
| 65) Acenaphthene               | 8.364  | 153  | 57166    | 8.7727  | ng    | 95       |

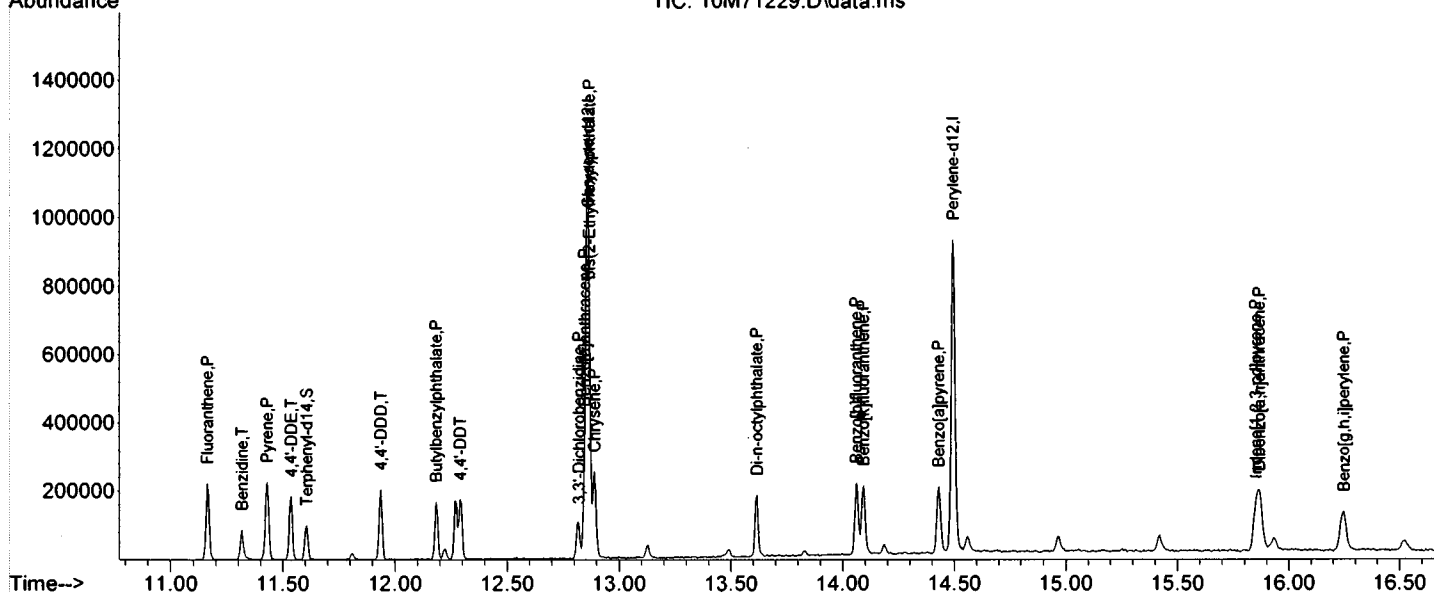
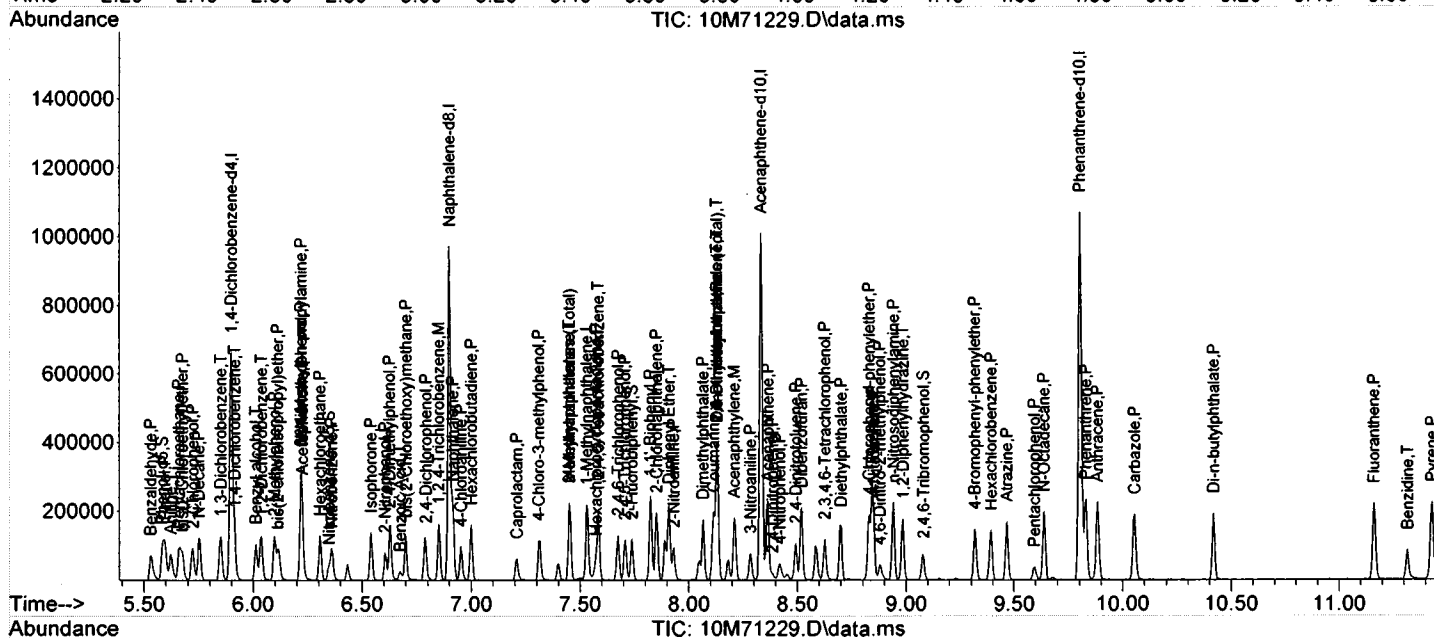
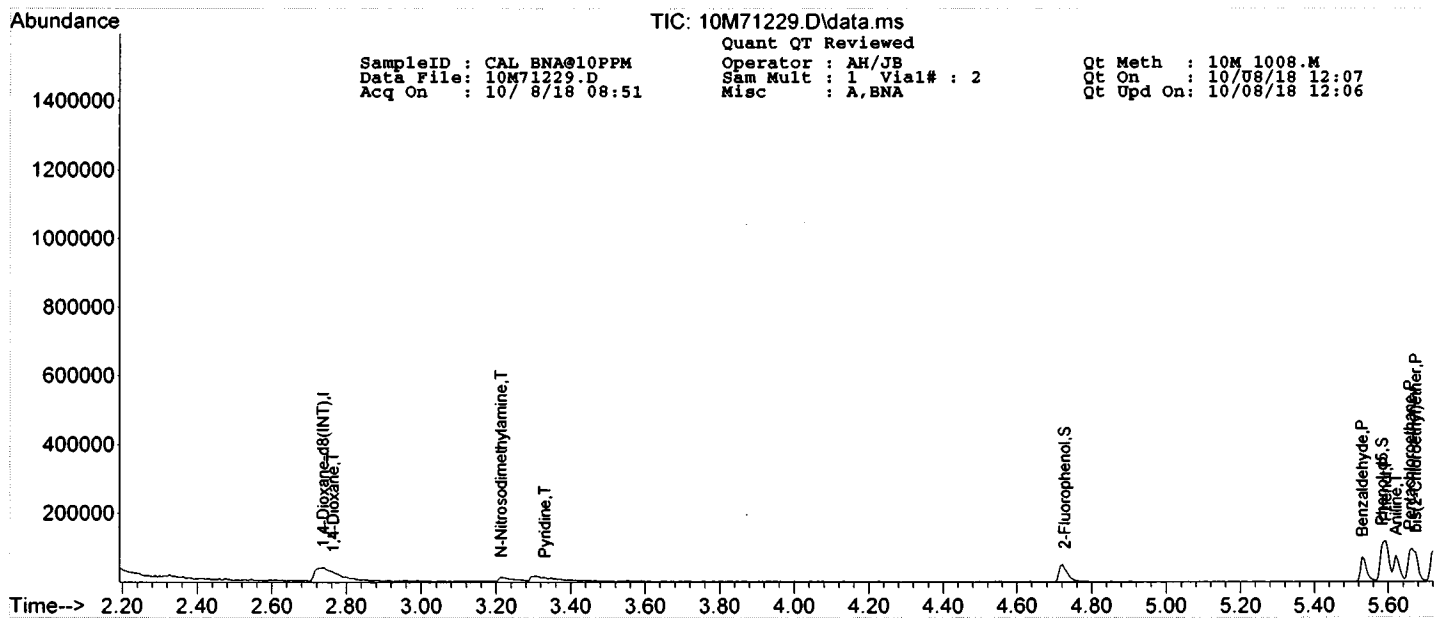
## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 10M.1008.M  
 Data File: 10M71229.D Sam Mult : 1 Vial# : 2 Qt On : 10/08/18 12:07  
 Acq On : 10/ 8/18 08:51 Misc : A,BNA Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 11370    | 6.6793 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.386  | 184  | 3471     | 4.4741 | ng    | 22       |
| 68) Dibenzofuran               | 8.520  | 168  | 78514    | 8.8689 | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 17053    | 7.8622 | ng    | 65       |
| 70) 4-Nitrophenol              | 8.418  | 65   | 7880     | 5.5655 | ng    | 53       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 14004    | 8.6272 | ng    | 80       |
| 72) Fluorene                   | 8.846  | 166  | 60957    | 8.3871 | ng    | 95       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 28809    | 8.3488 | ng    | 82       |
| 74) Diethylphthalate           | 8.701  | 149  | 58605    | 8.2029 | ng    | 93       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 14545    | 7.1968 | ng    | 79       |
| 76) Atrazine                   | 9.466  | 200  | 18856    | 8.5208 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 6676     | 6.0030 | ng    | 32       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 53553    | 8.2734 | ng    | 95       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 58118    | 7.8125 | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 16254    | 8.2422 | ng    | 95       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 16398    | 7.8395 | ng    | 71       |
| 84) N-Octadecane               | 9.637  | 57   | 30293    | 7.2868 | ng    | 83       |
| 85) Pentachlorophenol          | 9.595  | 266  | 5368     | 6.9789 | ng    | 95       |
| 86) Phenanthrene               | 9.830  | 178  | 95334    | 8.5900 | ng    | 96       |
| 87) Anthracene                 | 9.883  | 178  | 94041    | 8.3099 | ng    | 98       |
| 88) Carbazole                  | 10.055 | 167  | 86461    | 8.2660 | ng    | 93       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 92126    | 7.3526 | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 94255    | 8.1583 | ng    | 86       |
| 92) Pyrene                     | 11.429 | 202  | 102843   | 8.1909 | ng    | 83       |
| 93) Benzidine                  | 11.317 | 184  | 33393    | 6.4395 | ng    | 82       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 21493    | 9.0084 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 33925    | 8.1386 | ng    | 87       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 38401    | 6.5504 | ng    | 79       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 30404    | 8.1355 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.820 | 252  | 25813    | 6.4225 | ng    | 88       |
| 100) Benzo[a]anthracene        | 12.847 | 228  | 94857    | 8.1830 | ng    | 98       |
| 101) Chrysene                  | 12.889 | 228  | 91298    | 8.2700 | ng    | 96       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 61557    | 7.5488 | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 96466    | 7.2089 | ng    | 98       |
| 105) Benzo[b]fluoranthene      | 14.061 | 252  | 86334m   | 7.7935 | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 90012m   | 8.2926 | ng    |          |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 87116    | 8.1632 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.853 | 276  | 93495    | 8.0827 | ng    | 83       |
| 109) Dibenzo[a,h]anthracene    | 15.869 | 278  | 81219    | 8.3090 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.248 | 276  | 79752    | 8.0198 | ng    | 94       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@20PPM  
Data File: 10M71235.D  
Acq On : 10/ 8/18 11:06

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.738  | 96   | 46371      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 91991      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 335583     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 208898     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 378035     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 375028     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 370382     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.717  | 112  | 49915      | 20.45   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 20.45%  |       |          |
| 16) Phenol-d5                  | 5.583  | 99   | 70881      | 19.83   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 19.83%  |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 10190      | 9.16    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 18.32%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 68561      | 10.17   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 20.34%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 15653      | 18.18   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 18.18%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 62767      | 9.59    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 19.18%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 22016      | 18.8995 | ng    | 91       |
| 9) Pyridine                    | 3.273  | 79   | 48677      | 15.9313 | ng    | 59       |
| 10) N-Nitrosodimethylamine     | 3.203  | 74   | 30057      | 17.9171 | ng    | 80       |
| 12) Benzaldehyde               | 5.530  | 77   | 35486      | 21.8645 | ng    | 79       |
| 13) Aniline                    | 5.621  | 93   | 76799      | 22.1725 | ng    | 74       |
| 14) Pentachloroethane          | 5.658  | 117  | 20699      | 20.2033 | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 51381      | 18.4331 | ng    | 73       |
| 17) Phenol                     | 5.594  | 94   | 71027      | 18.2958 | ng    | 96       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 59380      | 20.4563 | ng    | 74       |
| 19) N-Decane                   | 5.754  | 57   | 45863      | 17.6082 | ng    | 74       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 64973      | 20.1776 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.910  | 146  | 66688      | 19.2199 | ng    | 100      |
| 23) 1,2-Dichlorobenzene        | 6.033  | 146  | 66066      | 19.9925 | ng    | 94       |
| 24) Benzyl alcohol             | 6.011  | 108  | 35362      | 18.4670 | ng    | 78       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 62449      | 19.8733 | ng    | 85       |
| 26) 2-Methylphenol             | 6.097  | 108  | 53716      | 18.7610 | ng    | 92       |
| 27) Acetophenone               | 6.225  | 105  | 79324      | 19.4248 | ng    | 68       |
| 28) Hexachloroethane           | 6.305  | 117  | 26583      | 19.5206 | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 39326      | 18.8881 | ng    | 80       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 53210      | 18.6352 | ng    | 96       |
| 33) Nitrobenzene               | 6.359  | 77   | 59781      | 18.6473 | ng    | 81       |
| 34) Isophorone                 | 6.541  | 82   | 102777     | 18.5396 | ng    | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 33148      | 19.5203 | ng    | 81       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 60574      | 20.5237 | ng    | 93       |
| 37) Benzoic Acid               | 6.685  | 105  | 35216      | 18.6265 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 65257      | 18.4703 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 50174      | 18.9174 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 59130      | 20.5607 | ng    | 91       |
| 41) Naphthalene                | 6.915  | 128  | 175969     | 18.9598 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.953  | 127  | 70092m     | 18.4661 | ng    |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 31677      | 20.7346 | ng    | 98       |
| 44) Caprolactam                | 7.215  | 113  | 17804      | 17.3006 | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 46858      | 17.7630 | ng    | 80       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 119464     | 18.8285 | ng    | 96       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 119702     | 19.3496 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 237261m    | 38.0244 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 148331     | 18.2995 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 58928      | 19.8622 | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.568  | 237  | 17445      | 14.0324 | ng    | 91       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 35419      | 19.8590 | ng    | 93       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 38700      | 19.8661 | ng    | 88       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 109767     | 19.0568 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 100948     | 20.6112 | ng    | 88       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 100948     | 20.6112 | ng    | 88       |
| 59) Diphenyl Ether             | 7.910  | 170  | 84340      | 19.0563 | ng    | 76       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 41352      | 20.0605 | ng    | 52       |
| 61) Coumarin                   | 8.119  | 146  | 44696      | 18.4659 | ng    | 63       |
| 62) Acenaphthylene             | 8.209  | 152  | 166003     | 18.4964 | ng    | 99       |
| 63) Dimethylphthalate          | 8.065  | 163  | 133298     | 20.1651 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 30790      | 20.5206 | ng    | 70       |
| 65) Acenaphthene               | 8.365  | 153  | 123659     | 20.2864 | ng    | 87       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM  
 Data File: 10M71235.D  
 Acq On : 10/ 8/18 11:06

Operator : AH/JB  
 Sam Mult : 1 Vial# : 8  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.284  | 138  | 33082    | 20.7750 | ng    | 73       |
| 67)  | 2,4-Dinitrophenol         | 8.381  | 184  | 9840     | 13.2291 | ng    | 47       |
| 68)  | Dibenzofuran              | 8.520  | 168  | 169560   | 20.4918 | ng    | 89       |
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165  | 40723    | 20.0707 | ng    | 58       |
| 70)  | 4-Nitrophenol             | 8.413  | 65   | 21145    | 15.9649 | ng    | 70       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.627  | 232  | 32629    | 21.4884 | ng    | 84       |
| 72)  | Fluorene                  | 8.841  | 166  | 132580   | 19.5005 | ng    | 96       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.830  | 204  | 65704    | 20.3550 | ng    | 82       |
| 74)  | Diethylphthalate          | 8.702  | 149  | 133066   | 19.9104 | ng    | 94       |
| 75)  | 4-Nitroaniline            | 8.851  | 138  | 34734    | 18.3723 | ng    | 89       |
| 76)  | Atrazine                  | 9.466  | 200  | 44602    | 21.5459 | ng    | 92       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.878  | 198  | 18279    | 17.0620 | ng    | 33       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169  | 115379   | 18.7945 | ng    | 97       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77   | 136245   | 19.3109 | ng    | 84       |
| 82)  | 4-Bromophenyl-phenylether | 9.317  | 248  | 34262    | 18.3189 | ng    | 91       |
| 83)  | Hexachlorobenzene         | 9.392  | 284  | 37022    | 18.6620 | ng    | 69       |
| 84)  | N-Octadecane              | 9.638  | 57   | 65595    | 16.6367 | ng    | 74       |
| 85)  | Pentachlorophenol         | 9.595  | 266  | 12891    | 17.1270 | ng    | 93       |
| 86)  | Phenanthrene              | 9.830  | 178  | 202903   | 19.2769 | ng    | 100      |
| 87)  | Anthracene                | 9.884  | 178  | 196154   | 18.2760 | ng    | 99       |
| 88)  | Carbazole                 | 10.055 | 167  | 186351   | 18.7850 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 208620   | 17.5761 | ng    | 98       |
| 90)  | Fluoranthene              | 11.162 | 202  | 216457   | 19.7548 | ng    | 86       |
| 92)  | Pyrene                    | 11.429 | 202  | 222173   | 19.3652 | ng    | 82       |
| 93)  | Benzidine                 | 11.317 | 184  | 100952   | 21.3519 | ng    | 84       |
| 95)  | 4,4'-DDE                  | 11.536 | 246  | 43546    | 19.9743 | ng    | 97       |
| 96)  | 4,4'-DDD                  | 11.937 | 235  | 76810    | 20.1660 | ng    | 90       |
| 97)  | Butylbenzylphthalate      | 12.184 | 149  | 93231    | 17.4045 | ng    | 78       |
| 98)  | 4,4'-DDT                  | 12.290 | 235  | 66886    | 19.5868 | ng    | 92       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.815 | 252  | 71183    | 19.6330 | ng    | 98       |
| 100) | Benzo[a]anthracene        | 12.852 | 228  | 199614   | 18.8454 | ng    | 97       |
| 101) | Chrysene                  | 12.895 | 228  | 195322   | 19.3628 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 138615   | 18.6032 | ng    | 97       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 217560   | 17.0747 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.066 | 252  | 192027m  | 18.2052 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 14.093 | 252  | 200989m  | 19.4465 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.430 | 252  | 189523   | 18.6512 | ng    | 88       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.853 | 276  | 203457   | 18.4724 | ng    | 81       |
| 109) | Dibenzo[a,h]anthracene    | 15.874 | 278  | 166606   | 17.9004 | ng    | 86       |
| 110) | Benzo[g,h,i]perylene      | 16.248 | 276  | 176133   | 18.6012 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@80PPM  
Data File: 10M71234.D  
Acq On : 10/ 8/18 10:44

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 46969      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 93648      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 355190     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 221269     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 391542     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 381281     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.499 | 264  | 378763     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 218351     | 88.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 88.31%   |       |          |
| 16) Phenol-d5                  | 5.589  | 99   | 301635     | 83.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 83.31%   |       |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 46826      | 39.79    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 79.58%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 284814     | 39.87    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 79.74%   |       |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 74111      | 81.92    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 81.92%   |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 268031     | 40.30    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 80.60%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 88310      | 74.8442  | ng    | 88       |
| 9) Pyridine                    | 3.246  | 79   | 227635     | 73.5531  | ng    | 70       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 126196     | 74.2681  | ng    | 79       |
| 12) Benzaldehyde               | 5.530  | 77   | 106751     | 64.9366  | ng    | 82       |
| 13) Aniline                    | 5.621  | 93   | 310366     | 88.4643  | ng    | 77       |
| 14) Pentachloroethane          | 5.663  | 117  | 82376      | 79.3795  | ng    | 73       |
| 15) bis(2-Chloroethyl) ether   | 5.680  | 93   | 217728     | 77.1163  | ng    | 74       |
| 17) Phenol                     | 5.599  | 94   | 310066     | 78.8527  | ng    | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 253954     | 86.3727  | ng    | 76       |
| 19) N-Decane                   | 5.754  | 57   | 198852     | 75.3733  | ng    | 75       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 275247     | 84.3908  | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 277799     | 78.6466  | ng    | 95       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 269915     | 80.2347  | ng    | 96       |
| 24) Benzyl alcohol             | 6.011  | 108  | 159907     | 82.0304  | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 253664     | 79.2957  | ng    | 78       |
| 26) 2-Methylphenol             | 6.102  | 108  | 219679     | 75.3681  | ng    | 97       |
| 27) Acetophenone               | 6.225  | 105  | 320144     | 77.0096  | ng    | 78       |
| 28) Hexachloroethane           | 6.305  | 117  | 110191     | 79.4844  | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 152933     | 72.1535  | ng    | 81       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 218815     | 74.2782  | ng    | 95       |
| 33) Nitrobenzene               | 6.364  | 77   | 250111     | 73.7098  | ng    | 78       |
| 34) Isophorone                 | 6.546  | 82   | 427931     | 72.9318  | ng    | 80       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 138081     | 76.8251  | ng    | 88       |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 248723     | 78.1994  | ng    | 94       |
| 37) Benzoic Acid               | 6.728  | 105  | 241671     | 100.9278 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 270374     | 72.3020  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 222583     | 79.2893  | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 242858     | 79.7849  | ng    | 95       |
| 41) Naphthalene                | 6.920  | 128  | 763025     | 77.8846  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 276719m    | 77.0673  | ng    |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 138513     | 85.6609  | ng    | 100      |
| 44) Caprolactam                | 7.241  | 113  | 83014      | 76.2138  | ng    | 52       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 210436     | 75.3690  | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 492469     | 73.3324  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.535  | 142  | 479441     | 73.2226  | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.535  | 142  | 978911m    | 148.2239 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 604474     | 70.4568  | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 241730     | 76.9221  | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 102788     | 71.9387  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 161166     | 85.3115  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 161442     | 78.2404  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.856  | 162  | 468215     | 76.7429  | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.135  | 156  | 395971     | 76.3278  | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 8.135  | 156  | 395971     | 76.3278  | ng    | 90       |
| 59) Diphenyl Ether             | 7.910  | 170  | 365473     | 77.9606  | ng    | 82       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 170684     | 78.1722  | ng    | 50       |
| 61) Coumarin                   | 8.124  | 146  | 184070     | 71.7957  | ng    | 60       |
| 62) Acenaphthylene             | 8.215  | 152  | 704463     | 74.1042  | ng    | 99       |
| 63) Dimethylphthalate          | 8.076  | 163  | 543573     | 77.6333  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.135  | 165  | 122178     | 76.8755  | ng    | 80       |
| 65) Acenaphthene               | 8.365  | 153  | 482318     | 74.7008  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : CAL\_BNA@80PPM  
 Data File: 10M71234.D  
 Acq On : 10/ 8/18 10:44

Operator : AH/JB  
 Sam Mult : 1 Vial# : 7  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.290  | 138  | 135836   | 80.5338 | ng    | 70       |
| 67) 2,4-Dinitrophenol          | 8.381  | 184  | 75243    | 80.4706 | ng    | 45       |
| 68) Dibenzofuran               | 8.520  | 168  | 710405   | 81.4011 | ng    | 90       |
| 69) 2,4-Dinitrotoluene         | 8.498  | 165  | 181095   | 84.2644 | ng    | 62       |
| 70) 4-Nitrophenol              | 8.418  | 65   | 100692   | 71.7738 | ng    | 54       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 136379   | 84.7931 | ng    | 87       |
| 72) Fluorene                   | 8.846  | 166  | 573931   | 79.6969 | ng    | 96       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 271480   | 79.4017 | ng    | 86       |
| 74) Diethylphthalate           | 8.707  | 149  | 555069   | 78.4105 | ng    | 94       |
| 75) 4-Nitroaniline             | 8.862  | 138  | 153687   | 76.7468 | ng    | 89       |
| 76) Atrazine                   | 9.477  | 200  | 182029   | 83.0165 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.883  | 198  | 99533    | 82.2004 | ng    | 59       |
| 79) n-Nitrosodiphenylamine     | 8.948  | 169  | 489439   | 76.9761 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.990  | 77   | 623463   | 85.3191 | ng    | 81       |
| 82) 4-Bromophenyl-phenylether  | 9.322  | 248  | 149646   | 77.2512 | ng    | 87       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 156189   | 76.0155 | ng    | 76       |
| 84) N-Octadecane               | 9.637  | 57   | 282894   | 69.2747 | ng    | 76       |
| 85) Pentachlorophenol          | 9.595  | 266  | 83829    | 88.4093 | ng    | 99       |
| 86) Phenanthrene               | 9.830  | 178  | 847510   | 77.7406 | ng    | 100      |
| 87) Anthracene                 | 9.889  | 178  | 865036   | 77.8166 | ng    | 100      |
| 88) Carbazole                  | 10.055 | 167  | 786912   | 76.5877 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 949793   | 77.7946 | ng    | 97       |
| 90) Fluoranthene               | 11.167 | 202  | 885688   | 78.0431 | ng    | 86       |
| 92) Pyrene                     | 11.435 | 202  | 907238   | 77.7803 | ng    | 80       |
| 93) Benzidine                  | 11.317 | 184  | 377186   | 79.1419 | ng    | 85       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 184404   | 83.1979 | ng    | 97       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 327307   | 84.5233 | ng    | 92       |
| 97) Butylbenzylphthalate       | 12.189 | 149  | 430536   | 79.0548 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.296 | 235  | 301170   | 86.7478 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.820 | 252  | 275534   | 79.3856 | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 820855   | 76.2254 | ng    | 99       |
| 101) Chrysene                  | 12.895 | 228  | 794907   | 77.5090 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 595258   | 78.5779 | ng    | 93       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 1002894  | 76.9683 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.072 | 252  | 871011   | 80.7495 | ng    | 92       |
| 106) Benzo[k]fluoranthene      | 14.098 | 252  | 819230m  | 77.5101 | ng    |          |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 820723   | 78.9814 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.869 | 276  | 838349   | 74.4316 | ng    | 85       |
| 109) Dibenzo[a,h]anthracene    | 15.879 | 278  | 720055   | 75.6520 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 16.259 | 276  | 746577   | 77.1006 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

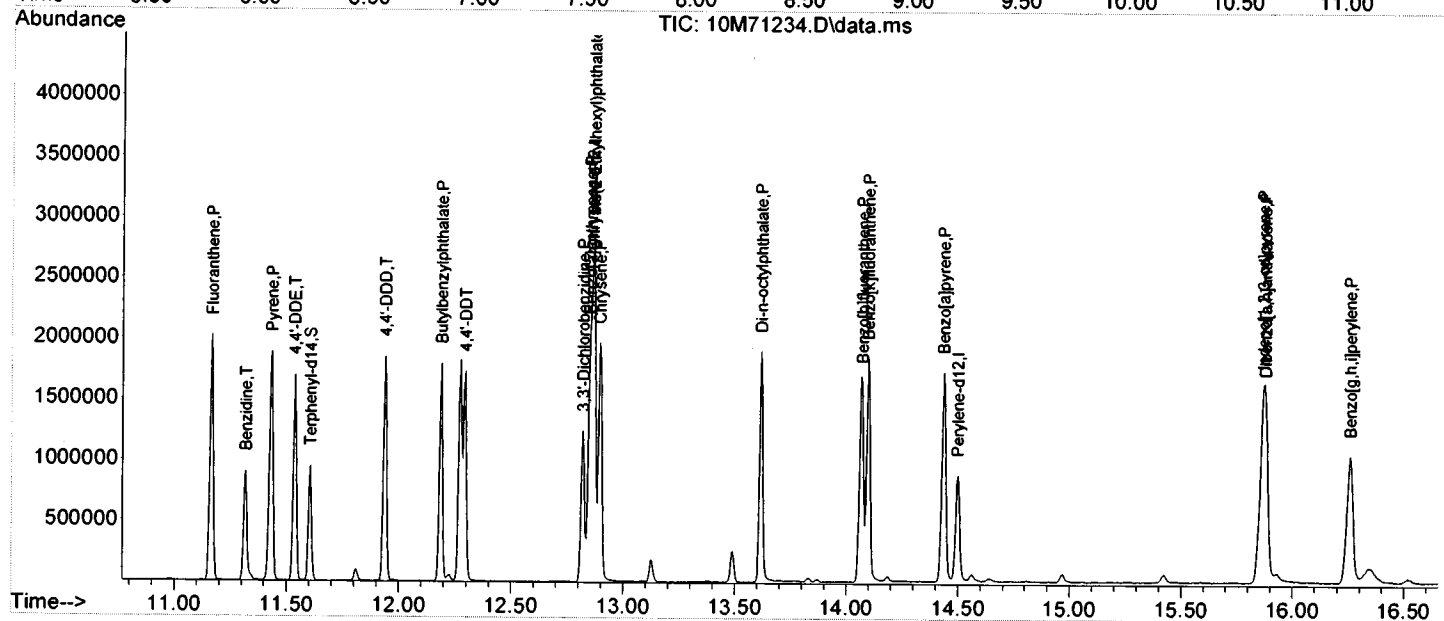
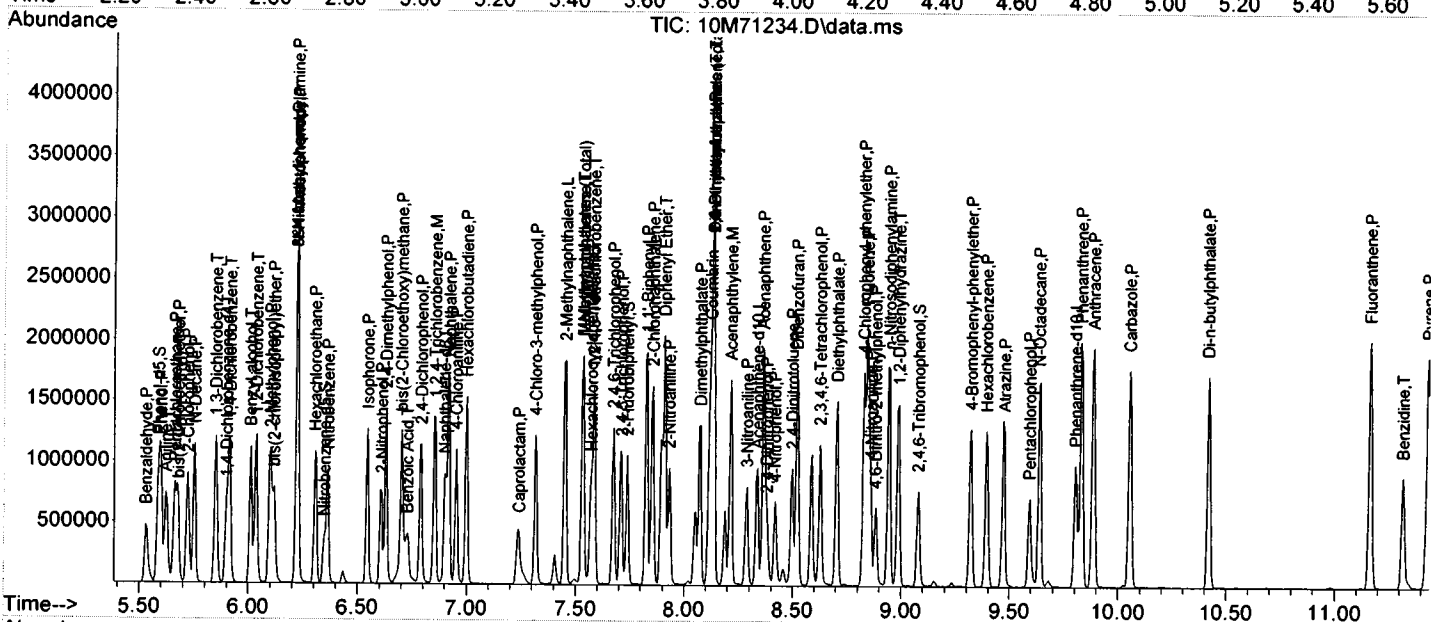
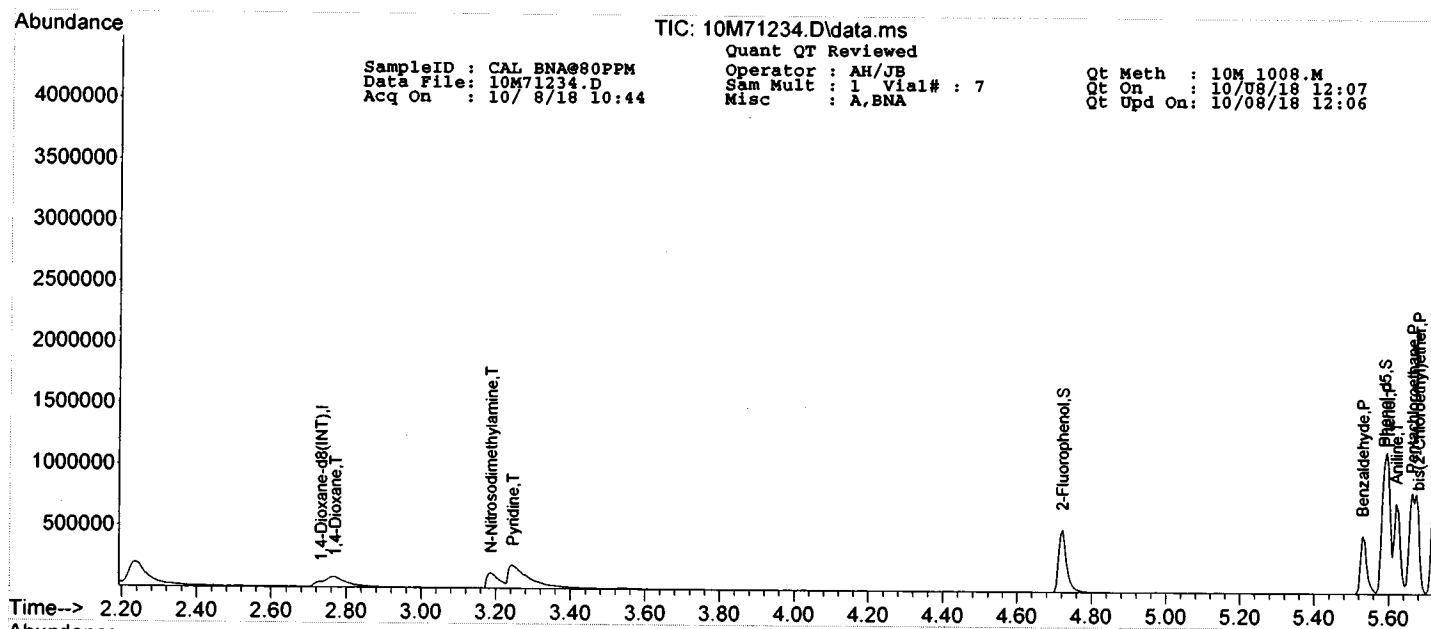
TIC: 10M71234.D\data.ms

Quant QT Reviewed

SampleID : CAL\_BNA@80PPM  
 Data File: 10M71234.D  
 Acq On : 10/ 8/18 10:44

Operator : AH/JB  
 Sam Mult : 1 Vial# : 7  
 Misc : A,BNA

Qt Meth : 10M 1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06



SampleID : CAL BNA@120PPM  
Data File: 10M71233.D  
Acq On : 10/ 8/18 10:22

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.732  | 96   | 48116      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 94428      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 362591     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 229352     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 409954     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.868 | 240  | 364480     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.499 | 264  | 379631     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 342767     | 135.32   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 135.32%  |       |          |
| 16) Phenol-d5                  | 5.588  | 99   | 463594     | 124.98   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 124.98%  |       |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 70988      | 59.09    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 118.18%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 435665     | 58.83    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 117.66%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 112887     | 118.23   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 118.23%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 418211     | 65.78    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 131.56%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 142336     | 117.7564 | ng    | 90       |
| 9) Pyridine                    | 3.235  | 79   | 352122     | 111.0649 | ng    | 72       |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 204641     | 117.5631 | ng    | 87       |
| 12) Benzaldehyde               | 5.530  | 77   | 143249     | 85.0611  | ng    | 81       |
| 13) Aniline                    | 5.626  | 93   | 472696     | 131.5217 | ng    | 76       |
| 14) Pentachloroethane          | 5.663  | 117  | 129155     | 121.4900 | ng    | 71       |
| 15) bis(2-Chloroethyl)ether    | 5.679  | 93   | 333980     | 115.4714 | ng    | 74       |
| 17) Phenol                     | 5.599  | 94   | 452742     | 112.3919 | ng    | 92       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 382645     | 127.0397 | ng    | 77       |
| 19) N-Decane                   | 5.754  | 57   | 294768     | 109.0660 | ng    | 76       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 424908     | 127.1713 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 416799     | 117.0237 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 406245     | 119.7626 | ng    | 97       |
| 24) Benzyl alcohol             | 6.016  | 108  | 243879     | 124.0737 | ng    | 72       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 393520     | 121.9988 | ng    | 76       |
| 26) 2-Methylphenol             | 6.102  | 108  | 334413     | 113.7837 | ng    | 98       |
| 27) Acetophenone               | 6.230  | 105  | 470276     | 112.1890 | ng    | 73       |
| 28) Hexachloroethane           | 6.311  | 117  | 172411     | 123.3385 | ng    | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.225  | 70   | 227756     | 106.5673 | ng    | 82       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 318295     | 106.3414 | ng    | 100      |
| 33) Nitrobenzene               | 6.364  | 77   | 379082     | 109.4382 | ng    | 77       |
| 34) Isophorone                 | 6.546  | 82   | 657112     | 109.7049 | ng    | 83       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 221703     | 120.8327 | ng    | 87       |
| 36) 2,4-Dimethylphenol         | 6.631  | 107  | 385051     | 117.1769 | ng    | 95       |
| 37) Benzoic Acid               | 6.744  | 105  | 398243     | 148.7294 | ng    | 87       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 410259     | 107.4700 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 350515     | 122.3131 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 359391     | 115.6589 | ng    | 95       |
| 41) Naphthalene                | 6.920  | 128  | 1153291    | 115.5174 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 375854     | 109.8443 | ng    | 92       |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 200163     | 121.2605 | ng    | 97       |
| 44) Caprolactam                | 7.252  | 113  | 128572     | 115.6304 | ng    | 60       |
| 45) 4-Chloro-3-methylphenol    | 7.321  | 107  | 319934     | 112.2475 | ng    | 82       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 752194     | 109.7211 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.535  | 142  | 740536     | 110.7898 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.535  | 142  | 1489184m   | 220.8855 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 917091     | 104.7132 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 369262     | 113.3634 | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 172843     | 110.8633 | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 245166     | 125.2024 | ng    | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 260022     | 121.5746 | ng    | 95       |
| 56) 2-Chloronaphthalene        | 7.856  | 162  | 742807     | 117.4592 | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.134  | 156  | 560850     | 104.2999 | ng    | 93       |
| 58) Dimethylnaphthalenes (...) | 8.134  | 156  | 560850     | 104.2999 | ng    | 93       |
| 59) Diphenyl Ether             | 7.910  | 170  | 548288     | 112.8357 | ng    | 83       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 268877     | 118.8040 | ng    | 40       |
| 61) Coumarin                   | 8.124  | 146  | 262313     | 98.7083  | ng    | 51       |
| 62) Acenaphthylene             | 8.215  | 152  | 1062751    | 107.8535 | ng    | 99       |
| 63) Dimethylphthalate          | 8.076  | 163  | 850801     | 117.2293 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.140  | 165  | 175513     | 106.5424 | ng    | 74       |
| 65) Acenaphthene               | 8.370  | 153  | 752113     | 112.3811 | ng    | 95       |

## Quantitation Report (QT Reviewed)

SampleID : CAL\_BNA@120PPM  
 Data File: 10M71233.D  
 Acq On : 10/ 8/18 10:22

Operator : AH/JB  
 Sam Mult : 1 Vial# : 6  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.290  | 138  | 200634   | 114.7587 | ng    | 81       |
| 67) 2,4-Dinitrophenol          | 8.386  | 184  | 127833   | 120.5764 | ng    | 38       |
| 68) Dibenzofuran               | 8.525  | 168  | 1062822  | 117.7916 | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 8.498  | 165  | 276784   | 124.2500 | ng    | 67       |
| 70) 4-Nitrophenol              | 8.423  | 65   | 164379   | 113.0409 | ng    | 48       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.632  | 232  | 217395   | 130.4009 | ng    | 85       |
| 72) Fluorene                   | 8.846  | 166  | 865060   | 115.8900 | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 412731   | 116.4601 | ng    | 88       |
| 74) Diethylphthalate           | 8.707  | 149  | 842292   | 114.7910 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.867  | 138  | 245519   | 118.2841 | ng    | 88       |
| 76) Atrazine                   | 9.477  | 200  | 282053   | 124.1003 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.889  | 198  | 161826   | 121.5115 | ng    | 50       |
| 79) n-Nitrosodiphenylamine     | 8.947  | 169  | 731993   | 109.9531 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.990  | 77   | 955802   | 124.9242 | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.322  | 248  | 234093   | 115.4176 | ng    | 90       |
| 83) Hexachlorobenzene          | 9.397  | 284  | 239473   | 111.3144 | ng    | 68       |
| 84) N-Octadecane               | 9.643  | 57   | 435579   | 101.8735 | ng    | 72       |
| 85) Pentachlorophenol          | 9.595  | 266  | 142373   | 129.9434 | ng    | 98       |
| 86) Phenanthrene               | 9.835  | 178  | 1288540  | 112.8871 | ng    | 99       |
| 87) Anthracene                 | 9.889  | 178  | 1333596  | 114.5791 | ng    | 100      |
| 88) Carbazole                  | 10.060 | 167  | 1221206  | 113.5181 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.424 | 149  | 1464988  | 115.0977 | ng    | 98       |
| 90) Fluoranthene               | 11.167 | 202  | 1392528  | 117.1928 | ng    | 86       |
| 92) Pyrene                     | 11.435 | 202  | 1432994  | 128.5181 | ng    | 80       |
| 93) Benzidine                  | 11.317 | 184  | 550346   | 121.5634 | ng    | 82       |
| 95) 4,4'-DDE                   | 11.542 | 246  | 292893   | 138.2365 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 515852   | 139.3534 | ng    | 91       |
| 97) Butylbenzylphthalate       | 12.189 | 149  | 666178   | 127.9618 | ng    | 74       |
| 98) 4,4'-DDT                   | 12.296 | 235  | 446455   | 134.5228 | ng    | 93       |
| 99) 3,3'-Dichlorobenzidine     | 12.825 | 252  | 405593   | 128.8631 | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.857 | 228  | 1250163  | 121.4427 | ng    | 98       |
| 101) Chrysene                  | 12.900 | 228  | 1215761  | 124.0097 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.873 | 149  | 906942   | 125.2409 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 1583969  | 121.2857 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.071 | 252  | 1282823  | 118.6557 | ng    | 91       |
| 106) Benzo[k]fluoranthene      | 14.104 | 252  | 1222585  | 115.4084 | ng    | 91       |
| 107) Benzo[a]pyrene            | 14.440 | 252  | 1242954  | 119.3408 | ng    | 90       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.869 | 276  | 1274897  | 112.9310 | ng    | 84       |
| 109) Dibenzo[a,h]anthracene    | 15.885 | 278  | 1085281  | 113.7635 | ng    | 89       |
| 110) Benzo[g,h,i]perylene      | 16.270 | 276  | 1135496  | 116.9970 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@160PPM  
Data File: 10M71232.D  
Acq On : 10/ 8/18 10:00

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.727  | 96   | 47686      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 94302      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 357131     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 230365     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 414288     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.868 | 240  | 352830     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.500 | 264  | 385890     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 461786     | 183.95   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 183.95%  |       |          |
| 16) Phenol-d5                  | 5.594  | 99   | 609780     | 165.88   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 165.88%  |       |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 99614      | 84.19    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 168.38%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.744  | 172  | 601763     | 80.91    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 161.82%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.087  | 330  | 159906     | 164.05   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 164.05%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 567560     | 92.21    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 184.42%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 185727     | 155.0399 | ng    | 88       |
| 9) Pyridine                    | 3.235  | 79   | 481555     | 153.2598 | ng    | 69       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 272853     | 158.1633 | ng    | 76       |
| 12) Benzaldehyde               | 5.535  | 77   | 170503     | 102.1574 | ng    | 81       |
| 13) Aniline                    | 5.626  | 93   | 630513     | 177.0143 | ng    | 76       |
| 14) Pentachloroethane          | 5.664  | 117  | 167241     | 158.7342 | ng    | 69       |
| 15) bis(2-Chloroethyl)ether    | 5.680  | 93   | 445267     | 155.3363 | ng    | 78       |
| 17) Phenol                     | 5.605  | 94   | 605527     | 151.6758 | ng    | 91       |
| 18) 2-Chlorophenol             | 5.728  | 128  | 517385     | 173.3229 | ng    | 73       |
| 19) N-Decane                   | 5.755  | 57   | 391951     | 146.3321 | ng    | 76       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 553412     | 167.1250 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 545810     | 153.4506 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 535830     | 158.1758 | ng    | 99       |
| 24) Benzyl alcohol             | 6.017  | 108  | 330268     | 168.2486 | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 522414     | 162.1748 | ng    | 78       |
| 26) 2-Methylphenol             | 6.102  | 108  | 442149     | 150.6417 | ng    | 94       |
| 27) Acetophenone               | 6.231  | 105  | 578710     | 138.2414 | ng    | 83       |
| 28) Hexachloroethane           | 6.311  | 117  | 229793     | 164.6077 | ng    | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.225  | 70   | 281554     | 131.9155 | ng    | 84       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 390987     | 130.0713 | ng    | 95       |
| 33) Nitrobenzene               | 6.364  | 77   | 514722     | 150.8683 | ng    | 79       |
| 34) Isophorone                 | 6.551  | 82   | 873108     | 147.9940 | ng    | 80       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 289906     | 160.4204 | ng    | 90       |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 509352     | 155.5482 | ng    | 97       |
| 37) Benzoic Acid               | 6.760  | 105  | 553836     | 193.9969 | ng    | 86       |
| 38) bis(2-Chloroethoxy)met...  | 6.707  | 93   | 537215     | 142.8784 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 453829     | 160.7860 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 480454     | 156.9832 | ng    | 98       |
| 41) Naphthalene                | 6.921  | 128  | 1472515    | 149.9849 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.953  | 127  | 460527m    | 149.5542 | ng    |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 267950     | 164.8082 | ng    | 96       |
| 44) Caprolactam                | 7.257  | 113  | 192628     | 175.8874 | ng    | 61       |
| 45) 4-Chloro-3-methylphenol    | 7.322  | 107  | 436710     | 155.5603 | ng    | 81       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 1004414    | 148.7520 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.536  | 142  | 978693     | 148.6584 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.455  | 142  | 1973986m   | 297.2708 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 1206961    | 139.9175 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 474204     | 144.9405 | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 247494     | 150.4001 | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 319910     | 162.6545 | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 352197     | 163.9473 | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.857  | 162  | 963876     | 151.7463 | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.140  | 156  | 682028     | 126.2773 | ng    | 95       |
| 58) Dimethylnaphthalenes (...) | 8.140  | 156  | 682028     | 126.2773 | ng    | 95       |
| 59) Diphenyl Ether             | 7.915  | 170  | 697667     | 142.9460 | ng    | 79       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 356956     | 157.0284 | ng    | 44       |
| 61) Coumarin                   | 8.129  | 146  | 321970     | 120.6244 | ng    | 43       |
| 62) Acenaphthylene             | 8.220  | 152  | 1460471    | 147.5644 | ng    | 99       |
| 63) Dimethylphthalate          | 8.081  | 163  | 1145042    | 157.0781 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.140  | 165  | 218689     | 132.1679 | ng    | 97       |
| 65) Acenaphthene               | 8.370  | 153  | 985628     | 146.6254 | ng    | 96       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM

Operator : AH/JB

Qt Meth : 10M\_1008.M

Data File: 10M71232.D

Sam Mult : 1 Vial# : 5

Qt On : 10/08/18 12:07

Acq On : 10/ 8/18 10:00

Misc : A,BNA

Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.295  | 138  | 255039   | 145.2358 | ng    | 71       |
| 67) 2,4-Dinitrophenol          | 8.386  | 184  | 187532   | 161.8247 | ng    | 41       |
| 68) Dibenzofuran               | 8.525  | 168  | 1396003  | 154.4360 | ng    | 90       |
| 69) 2,4-Dinitrotoluene         | 8.504  | 165  | 380955   | 170.2610 | ng    | 65       |
| 70) 4-Nitrophenol              | 8.429  | 65   | 217746   | 149.0821 | ng    | 50       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.632  | 232  | 294817   | 176.0636 | ng    | 84       |
| 72) Fluorene                   | 8.851  | 166  | 1150322  | 153.4283 | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.835  | 204  | 550085   | 154.5347 | ng    | 85       |
| 74) Diethylphthalate           | 8.707  | 149  | 1133195  | 153.7574 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.873  | 138  | 333699   | 160.0597 | ng    | 88       |
| 76) Atrazine                   | 9.483  | 200  | 394500   | 172.8124 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.894  | 198  | 219844   | 156.6276 | ng    | 52       |
| 79) n-Nitrosodiphenylamine     | 8.953  | 169  | 990340   | 147.2034 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.990  | 77   | 1314004  | 169.9449 | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.322  | 248  | 316564   | 154.4464 | ng    | 94       |
| 83) Hexachlorobenzene          | 9.397  | 284  | 315351   | 145.0514 | ng    | 75       |
| 84) N-Octadecane               | 9.643  | 57   | 559114   | 129.3980 | ng    | 71       |
| 85) Pentachlorophenol          | 9.600  | 266  | 195643   | 164.0473 | ng    | 97       |
| 86) Phenanthrene               | 9.836  | 178  | 1711814  | 148.4006 | ng    | 100      |
| 87) Anthracene                 | 9.894  | 178  | 1777655  | 151.1337 | ng    | 99       |
| 88) Carbazole                  | 10.060 | 167  | 1617877  | 148.8176 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.424 | 149  | 1989690  | 155.4103 | ng    | 99       |
| 90) Fluoranthene               | 11.173 | 202  | 1841109  | 153.3237 | ng    | 83       |
| 92) Pyrene                     | 11.440 | 202  | 1885649  | 174.6984 | ng    | 79       |
| 93) Benzidine                  | 11.322 | 184  | 742465   | 170.6672 | ng    | 80       |
| 95) 4,4'-DDE                   | 11.542 | 246  | 390880   | 190.5748 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.943 | 235  | 670002   | 186.9721 | ng    | 90       |
| 97) Butylbenzylphthalate       | 12.194 | 149  | 893278   | 177.2495 | ng    | 72       |
| 98) 4,4'-DDT                   | 12.301 | 235  | 615678   | 191.6373 | ng    | 93       |
| 99) 3,3'-Dichlorobenzidine     | 12.825 | 252  | 507042   | 175.3294 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.858 | 228  | 1675702  | 168.1550 | ng    | 98       |
| 101) Chrysene                  | 12.906 | 228  | 1617265  | 170.4107 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.874 | 149  | 1202749  | 171.5733 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.622 | 149  | 2124756  | 160.0553 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.077 | 252  | 1671543  | 152.1030 | ng    | 91       |
| 106) Benzo[k]fluoranthene      | 14.109 | 252  | 1717131  | 159.4629 | ng    | 90       |
| 107) Benzo[a]pyrene            | 14.446 | 252  | 1650186  | 155.8709 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.874 | 276  | 1734400  | 151.1422 | ng    | 83       |
| 109) Dibenzo[a,h]anthracene    | 15.896 | 278  | 1446746  | 149.1939 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.275 | 276  | 1519870  | 154.0614 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@196PPM  
Data File: 10M71231.D  
Acq On : 10/ 8/18 09:38

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 46558      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 95237      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 358254     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 237684     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 438766     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.874 | 240  | 339080     | 40.00    | ng    | 0.01     |
| 103) Perylene-d12              | 14.500 | 264  | 408006     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 556812     | 227.18   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 227.18%  |       |          |
| 16) Phenol-d5                  | 5.594  | 99   | 732223     | 204.01   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 204.01%  |       |          |
| 32) Nitrobenzene-d5            | 6.354  | 128  | 120762     | 101.74   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 203.48%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.744  | 172  | 714699     | 93.13    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 186.26%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.087  | 330  | 192882     | 185.95   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 185.95%  |       |          |
| 94) Terphenyl-d14              | 11.611 | 244  | 738491     | 124.85   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 249.70%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.759  | 88   | 221767     | 189.6103 | ng    | 86       |
| 9) Pyridine                    | 3.230  | 79   | 590920     | 192.6228 | ng    | 70       |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 340569     | 202.1989 | ng    | 86       |
| 12) Benzaldehyde               | 5.530  | 77   | 198458     | 121.7876 | ng    | 76       |
| 13) Aniline                    | 5.626  | 93   | 760890     | 218.7926 | ng    | 76       |
| 14) Pentachloroethane          | 5.664  | 117  | 202373     | 196.7329 | ng    | 70       |
| 15) bis(2-Chloroethyl)ether    | 5.685  | 93   | 523855     | 187.1803 | ng    | 75       |
| 17) Phenol                     | 5.610  | 94   | 741355     | 190.1979 | ng    | 91       |
| 18) 2-Chlorophenol             | 5.728  | 128  | 634062     | 217.5556 | ng    | 73       |
| 19) N-Decane                   | 5.755  | 57   | 459451     | 175.6886 | ng    | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 664218     | 205.4471 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 676465     | 188.3162 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 645170     | 188.5829 | ng    | 97       |
| 24) Benzyl alcohol             | 6.017  | 108  | 408228     | 205.9222 | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 616647     | 189.5485 | ng    | 77       |
| 26) 2-Methylphenol             | 6.102  | 108  | 533772     | 180.0726 | ng    | 96       |
| 27) Acetophenone               | 6.236  | 105  | 649437     | 153.6135 | ng    | 75       |
| 28) Hexachloroethane           | 6.311  | 117  | 276470     | 196.0996 | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.231  | 70   | 320717     | 148.7891 | ng    | 91       |
| 30) 3&4-Methylphenol           | 6.231  | 108  | 428108     | 140.6713 | ng    | 99       |
| 33) Nitrobenzene               | 6.370  | 77   | 634148     | 185.2902 | ng    | 75       |
| 34) Isophorone                 | 6.551  | 82   | 1080992    | 182.6566 | ng    | 85       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 355628     | 196.1711 | ng    | 93       |
| 36) 2,4-Dimethylphenol         | 6.637  | 107  | 620465     | 187.1020 | ng    | 96       |
| 37) Benzoic Acid               | 6.771  | 105  | 713779     | 233.6436 | ng    | 85       |
| 38) bis(2-Chloroethoxy)met...  | 6.707  | 93   | 644756     | 170.9426 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.798  | 162  | 543790     | 192.0541 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 588069     | 191.5430 | ng    | 98       |
| 41) Naphthalene                | 6.921  | 128  | 1759855    | 178.9293 | ng    | 100      |
| 42) 4-Chloroaniline            | 6.958  | 127  | 522350m    | 184.3630 | ng    |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 326215     | 200.0163 | ng    | 95       |
| 44) Caprolactam                | 7.274  | 113  | 244421     | 222.4796 | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.327  | 107  | 543122     | 192.8589 | ng    | 82       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 1170458    | 172.7994 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.536  | 142  | 1141341    | 172.8204 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.455  | 142  | 2297970m   | 344.9762 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 1465633    | 169.3715 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 575316     | 170.4305 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 292412     | 168.4937 | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.680  | 196  | 385051     | 189.7462 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 414932m    | 187.2027 | ng    |          |
| 56) 2-Chloronaphthalene        | 7.857  | 162  | 1150433    | 175.5395 | ng    | 94       |
| 57) 1,4-Dimethylnaphthalene    | 8.140  | 156  | 772001     | 138.5344 | ng    | 97       |
| 58) Dimethylnaphthalenes (...) | 8.140  | 156  | 772001     | 138.5344 | ng    | 97       |
| 59) Diphenyl Ether             | 7.915  | 170  | 791516     | 157.1810 | ng    | 83       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 445404     | 189.9040 | ng    | 52       |
| 61) Coumarin                   | 8.135  | 146  | 355115     | 128.9452 | ng    | 33       |
| 62) Acenaphthylene             | 8.220  | 152  | 1748257    | 171.2027 | ng    | 99       |
| 63) Dimethylphthalate          | 8.087  | 163  | 1431435    | 190.3191 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.145  | 165  | 261204     | 153.0014 | ng    | 79       |
| 65) Acenaphthene               | 8.370  | 153  | 1191791    | 171.8354 | ng    | 96       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM  
 Data File: 10M71231.D  
 Acq On : 10/ 8/18 09:38

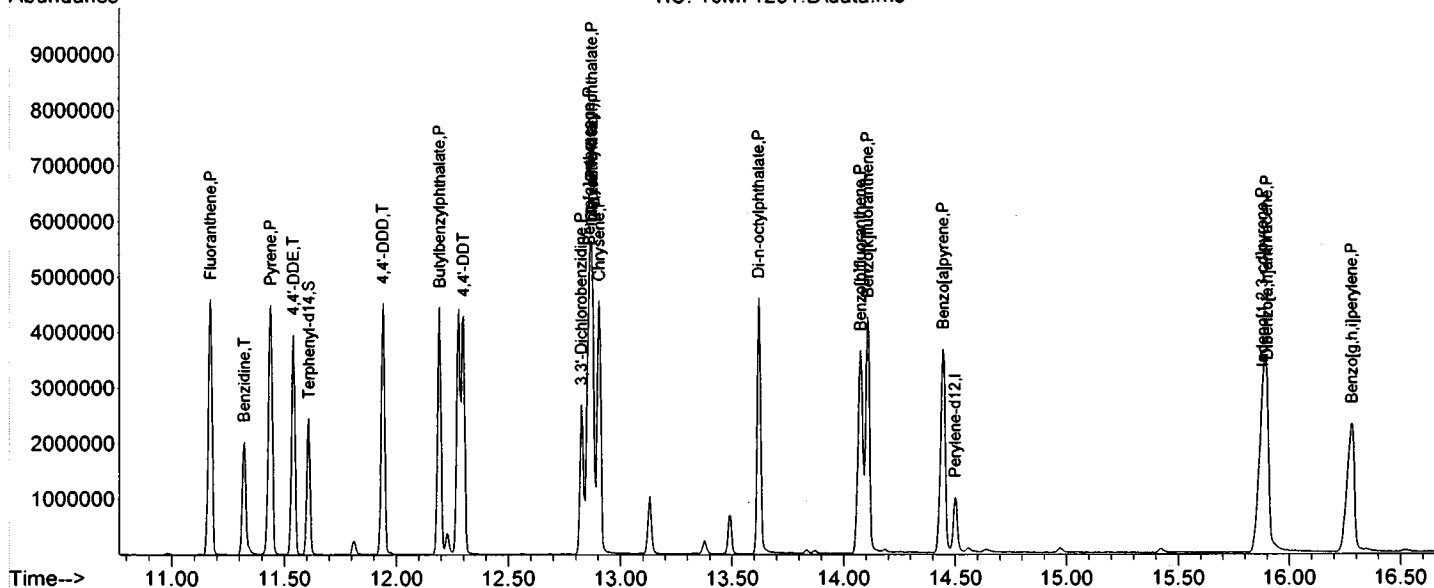
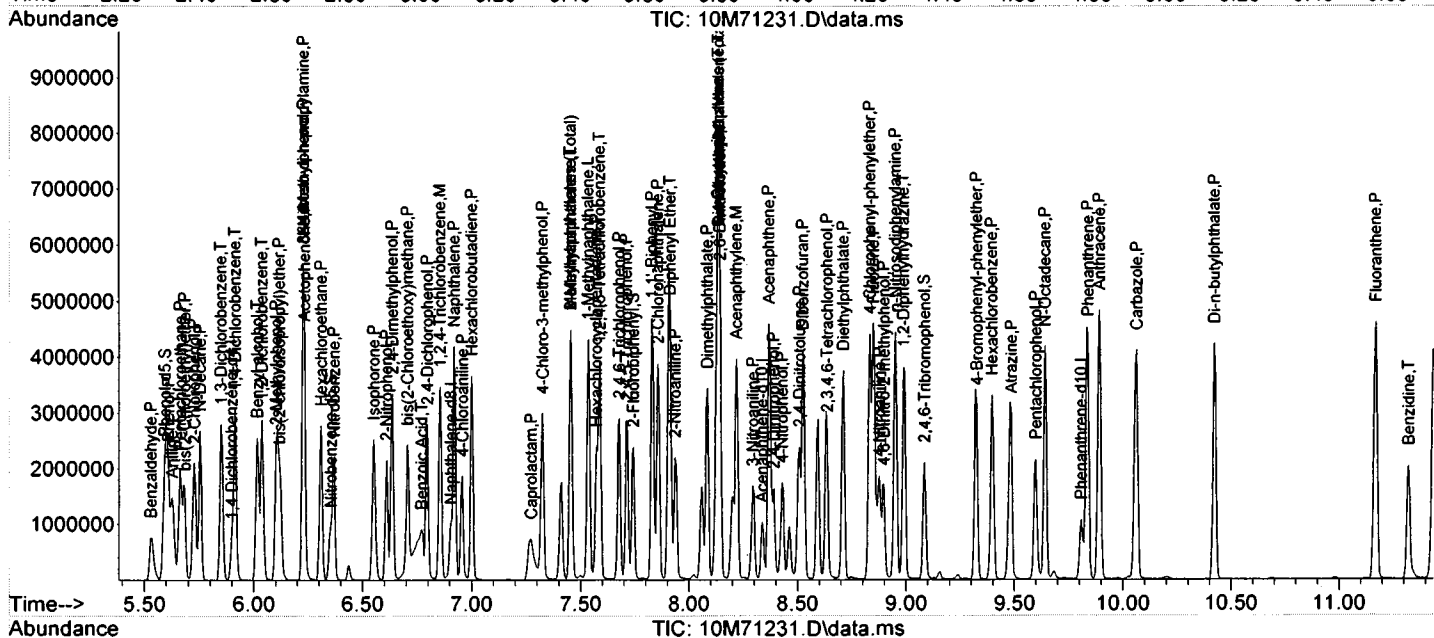
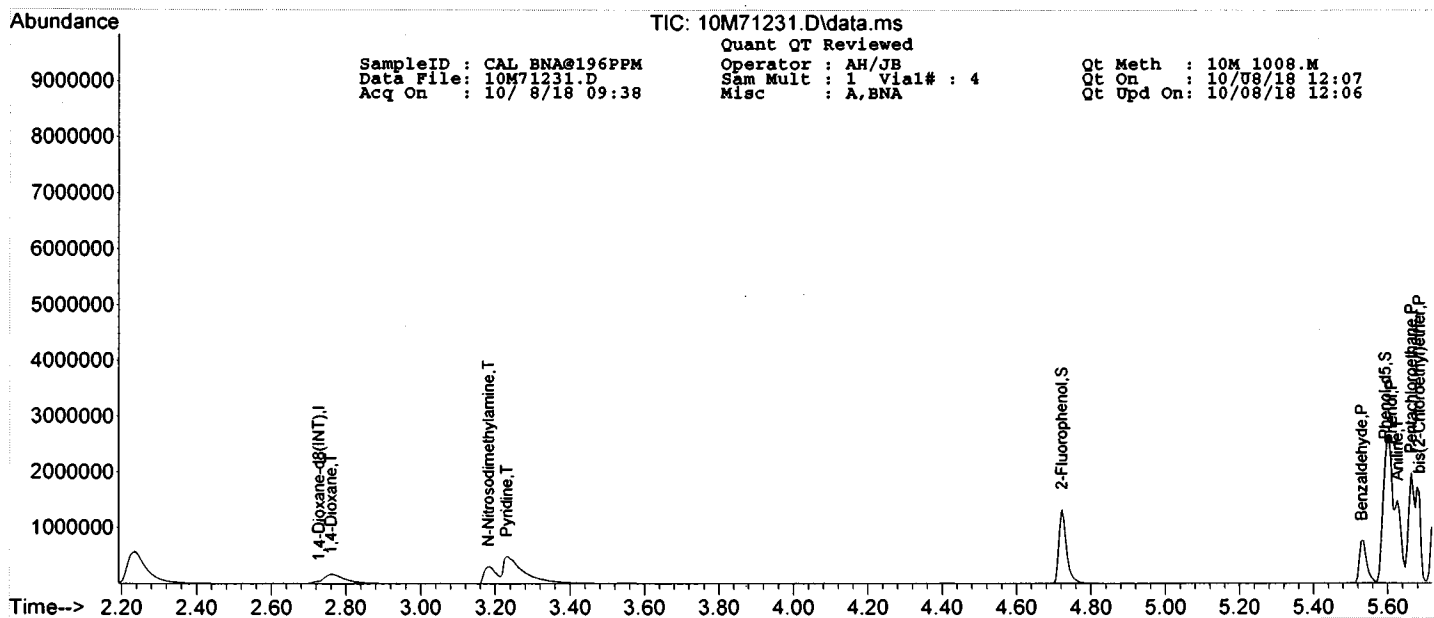
Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.295  | 138  | 307749   | 169.8558 | ng    | 75       |
| 67) 2,4-Dinitrophenol          | 8.391  | 184  | 240705   | 190.5498 | ng    | 35       |
| 68) Dibenzofuran               | 8.525  | 168  | 1743000  | 187.3208 | ng    | 91       |
| 69) 2,4-Dinitrotoluene         | 8.509  | 165  | 468982   | 203.1488 | ng    | 63       |
| 70) 4-Nitrophenol              | 8.429  | 65   | 283725   | 188.2736 | ng    | 61       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.637  | 232  | 367564   | 212.7486 | ng    | 87       |
| 72) Fluorene                   | 8.851  | 166  | 1402376  | 181.2871 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.835  | 204  | 685935   | 186.7651 | ng    | 90       |
| 74) Diethylphthalate           | 8.712  | 149  | 1421066  | 186.8797 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.878  | 138  | 426465   | 198.2563 | ng    | 88       |
| 76) Atrazine                   | 9.488  | 200  | 491274   | 208.5779 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.900  | 198  | 286960   | 186.5085 | ng    | 60       |
| 79) n-Nitrosodiphenylamine     | 8.953  | 169  | 1231051  | 172.7742 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.990  | 77   | 1642597  | 200.5912 | ng    | 86       |
| 82) 4-Bromophenyl-phenylether  | 9.327  | 248  | 391878   | 180.5246 | ng    | 90       |
| 83) Hexachlorobenzene          | 9.397  | 284  | 399721   | 173.6018 | ng    | 81       |
| 84) N-Octadecane               | 9.643  | 57   | 675625   | 147.6394 | ng    | 74       |
| 85) Pentachlorophenol          | 9.600  | 266  | 256888   | 192.0823 | ng    | 98       |
| 86) Phenanthrene               | 9.841  | 178  | 2086934  | 170.8273 | ng    | 99       |
| 87) Anthracene                 | 9.894  | 178  | 2190228  | 175.8218 | ng    | 99       |
| 88) Carbazole                  | 10.066 | 167  | 2027536  | 176.0949 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.424 | 149  | 2409706  | 178.1880 | ng    | 98       |
| 90) Fluoranthene               | 11.173 | 202  | 2289404  | 180.0203 | ng    | 83       |
| 92) Pyrene                     | 11.440 | 202  | 2354962  | 227.0259 | ng    | 80       |
| 93) Benzidine                  | 11.322 | 184  | 906983   | 218.5126 | ng    | 83       |
| 95) 4,4'-DDE                   | 11.542 | 246  | 482070   | 244.5656 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.943 | 235  | 845933   | 245.6405 | ng    | 89       |
| 97) Butylbenzylphthalate       | 12.194 | 149  | 1149970  | 237.4368 | ng    | 76       |
| 98) 4,4'-DDT                   | 12.301 | 235  | 772245   | 250.1179 | ng    | 91       |
| 99) 3,3'-Dichlorobenzidine     | 12.825 | 252  | 592165   | 226.3971 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.863 | 228  | 1996289  | 208.4490 | ng    | 99       |
| 101) Chrysene                  | 12.906 | 228  | 2052808  | 225.0750 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.874 | 149  | 1439783  | 213.7151 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.622 | 149  | 2665071  | 189.8746 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.077 | 252  | 2157906m | 185.7161 | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.109 | 252  | 1972412m | 173.2411 | ng    |          |
| 107) Benzo[a]pyrene            | 14.446 | 252  | 2056194  | 183.6933 | ng    | 90       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.879 | 276  | 2152490  | 177.4085 | ng    | 82       |
| 109) Dibenzo[a,h]anthracene    | 15.901 | 278  | 1780392  | 173.6486 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.281 | 276  | 1998793  | 191.6250 | ng    | 93       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@.5PPM  
Data File: 10M71236.D  
Acq On : 10/ 8/18 11:28

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| Internal Standards             |        |      |          |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 45678    | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 87007    | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 329675   | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 208232   | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 382719   | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 376330   | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 356360   | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |        |       |          |
| 11) 2-Fluorophenol             | 0.000  | 112  | 0        | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |
| 16) Phenol-d5                  | 0.000  | 99   | 0d       | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |
| 32) Nitrobenzene-d5            | 0.000  | 128  | 0        | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |
| 55) 2-Fluorobiphenyl           | 0.000  | 172  | 0d       | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |
| 80) 2,4,6-Tribromophenol       | 0.000  | 330  | 0        | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |
| 94) Terphenyl-d14              | 0.000  | 244  | 0d       | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |
| Target Compounds               |        |      |          |        |       |          |
| 8) 1,4-Dioxane                 | 2.775  | 88   | 627m     | 0.5464 | ng    |          |
| 9) Pyridine                    | 0.000  |      | 0        | N.D.   |       |          |
| 10) N-Nitrosodimethylamine     | 0.000  |      | 0        | N.D.   |       |          |
| 12) Benzaldehyde               | 0.000  |      | 0        | N.D.   |       |          |
| 13) Aniline                    | 5.626  | 93   | 927      | 0.2717 | ng    | 58       |
| 14) Pentachloroethane          | 0.000  |      | 0        | N.D. d |       |          |
| 15) bis(2-Chloroethyl)ether    | 5.680  | 93   | 1626     | 0.5922 | ng    | 71       |
| 17) Phenol                     | 0.000  |      | 0        | N.D. d |       |          |
| 18) 2-Chlorophenol             | 0.000  |      | 0        | N.D. d |       |          |
| 19) N-Decane                   | 0.000  |      | 0        | N.D. d |       |          |
| 20) 1,3-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |
| 22) 1,4-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |
| 23) 1,2-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |
| 24) Benzyl alcohol             | 0.000  |      | 0        | N.D. d |       |          |
| 25) bis(2-chloroisopropyl)...  | 0.000  |      | 0        | N.D. d |       |          |
| 26) 2-Methylphenol             | 6.102  | 108  | 1159     | 0.4280 | ng    | 99       |
| 27) Acetophenone               | 0.000  |      | 0        | N.D. d |       |          |
| 28) Hexachloroethane           | 0.000  |      | 0        | N.D. d |       |          |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 755m     | 0.3834 | ng    |          |
| 30) 3&4-Methylphenol           | 6.230  | 108  | 1201     | 0.4467 | ng    | 67       |
| 33) Nitrobenzene               | 0.000  |      | 0        | N.D. d |       |          |
| 34) Isophorone                 | 0.000  |      | 0        | N.D. d |       |          |
| 35) 2-Nitrophenol              | 0.000  |      | 0        | N.D. d |       |          |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 1459     | 0.5064 | ng    | 90       |
| 37) Benzoic Acid               | 0.000  |      | 0        | N.D. d |       |          |
| 38) bis(2-Chloroethoxy)met...  | 0.000  |      | 0        | N.D. d |       |          |
| 39) 2,4-Dichlorophenol         | 6.797  | 162  | 1281m    | 0.4916 | ng    |          |
| 40) 1,2,4-Trichlorobenzene     | 0.000  |      | 0        | N.D. d |       |          |
| 41) Naphthalene                | 6.915  | 128  | 5210     | 0.5709 | ng    | 83       |
| 42) 4-Chloroaniline            | 6.958  | 127  | 1334     | 0.3464 | ng    | 82       |
| 43) Hexachlorobutadiene        | 0.000  |      | 0        | N.D. d |       |          |
| 44) Caprolactam                | 0.000  |      | 0        | N.D.   |       |          |
| 45) 4-Chloro-3-methylphenol    | 0.000  |      | 0        | N.D. d |       |          |
| 46) 2-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |
| 47) 1-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |
| 48) Methylnaphthalenes (To...  | 0.000  |      | 0        | N.D. d |       |          |
| 49) 1,1'-Biphenyl              | 0.000  |      | 0        | N.D. d |       |          |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000  |      | 0        | N.D. d |       |          |
| 52) Hexachlorocyclopentadiene  | 0.000  |      | 0        | N.D.   |       |          |
| 53) 2,4,6-Trichlorophenol      | 0.000  |      | 0        | N.D. d |       |          |
| 54) 2,4,5-Trichlorophenol      | 0.000  |      | 0        | N.D. d |       |          |
| 56) 2-Chloronaphthalene        | 0.000  |      | 0        | N.D. d |       |          |
| 57) 1,4-Dimethylnaphthalene    | 0.000  |      | 0        | N.D. d |       |          |
| 58) Dimethylnaphthalenes (...) | 0.000  |      | 0        | N.D. d |       |          |
| 59) Diphenyl Ether             | 0.000  |      | 0        | N.D. d |       |          |
| 60) 2-Nitroaniline             | 0.000  |      | 0        | N.D. d |       |          |
| 61) Coumarin                   | 0.000  |      | 0        | N.D. d |       |          |
| 62) Acenaphthylene             | 0.000  |      | 0        | N.D. d |       |          |
| 63) Dimethylphthalate          | 0.000  |      | 0        | N.D. d |       |          |
| 64) 2,6-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |
| 65) Acenaphthene               | 0.000  |      | 0        | N.D. d |       |          |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM  
 Data File: 10M71236.D  
 Acq On : 10/ 8/18 11:28

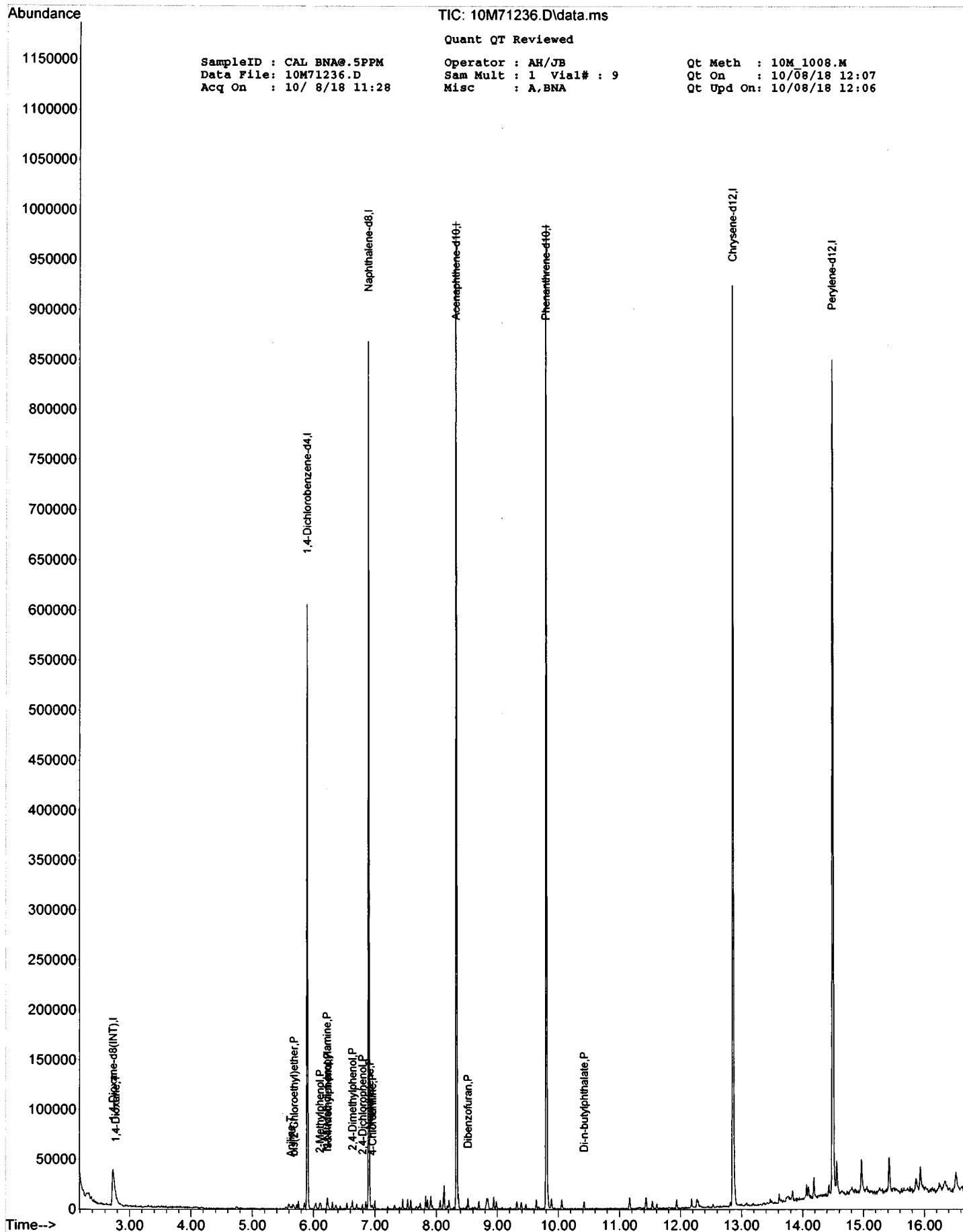
Operator : AH/JB  
 Sam Mult : 1 Vial# : 9  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |      | 0        | N.D.   |       |          |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.520  | 168  | 4691     | 0.5679 | ng    | 73       |
| 69) 2,4-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |
| 70) 4-Nitrophenol              | 0.000  |      | 0        | N.D. d |       |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |      | 0        | N.D. d |       |          |
| 72) Fluorene                   | 0.000  |      | 0        | N.D. d |       |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |      | 0        | N.D. d |       |          |
| 74) Diethylphthalate           | 0.000  |      | 0        | N.D. d |       |          |
| 75) 4-Nitroaniline             | 0.000  |      | 0        | N.D. d |       |          |
| 76) Atrazine                   | 0.000  |      | 0        | N.D. d |       |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |      | 0        | N.D. d |       |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |      | 0        | N.D. d |       |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |      | 0        | N.D. d |       |          |
| 83) Hexachlorobenzene          | 0.000  |      | 0        | N.D. d |       |          |
| 84) N-Octadecane               | 0.000  |      | 0        | N.D. d |       |          |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 86) Phenanthrene               | 0.000  |      | 0        | N.D. d |       |          |
| 87) Anthracene                 | 0.000  |      | 0        | N.D. d |       |          |
| 88) Carbazole                  | 0.000  |      | 0        | N.D. d |       |          |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 4791     | 0.3979 | ng    | 95       |
| 90) Fluoranthene               | 0.000  |      | 0        | N.D. d |       |          |
| 92) Pyrene                     | 0.000  |      | 0        | N.D. d |       |          |
| 93) Benzidine                  | 0.000  |      | 0        | N.D. d |       |          |
| 95) 4,4'-DDE                   | 0.000  |      | 0        | N.D. d |       |          |
| 96) 4,4'-DDD                   | 0.000  |      | 0        | N.D. d |       |          |
| 97) Butylbenzylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 98) 4,4'-DDT                   | 0.000  |      | 0        | N.D. d |       |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |      | 0        | N.D. d |       |          |
| 100) Benzo[a]anthracene        | 0.000  |      | 0        | N.D. d |       |          |
| 101) Chrysene                  | 0.000  |      | 0        | N.D. d |       |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |      | 0        | N.D. d |       |          |
| 104) Di-n-octylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 105) Benzo[b]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 106) Benzo[k]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 107) Benzo[a]pyrene            | 0.000  |      | 0        | N.D. d |       |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |      | 0        | N.D. d |       |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |      | 0        | N.D. d |       |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |      | 0        | N.D. d |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



| Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |     | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |       |    |       |       |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|          |            |                 | RF1                | RF2 | RF3 | RF4 | RF5 |          |            |                 | RF6                | RF7 | RF8 | RF9 | AvgRt | RT | Corr1 | Corr2 | %Rsd |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1        | 10M71237.D | CAL BNA@50PPM   |                    |     |     |     |     |          | 2          | 10M71230.D      | CAL BNA@20PPM      |     |     |     |       |    |       |       |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.



| Level #                | Data File  | Cal Identifier | Analysis Date/Time |        |        |        |        |        |        |        |        | Level # | Data File | Cal Identifier | Analysis Date/Time |      |       |       |      |       |       |       |       |       |       |      |      |
|------------------------|------------|----------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-----------|----------------|--------------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|------|
|                        |            |                | RF1                | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9    |         |           |                | AvgRt              | RT   | Corr1 | Corr2 | %Rsd | Lvl1  | Lvl2  | Lvl3  | Lvl4  | Lvl5  | Lvl6  | Lvl7 | Lvl8 |
| 1                      | 10M71237.D | CAL BNA@50PPM  |                    |        |        |        |        |        |        |        |        |         |           |                |                    |      |       |       |      |       |       |       |       |       |       |      |      |
| 3                      | 10M71229.D | CAL BNA@10PPM  |                    |        |        |        |        |        |        |        |        |         |           |                |                    |      |       |       |      |       |       |       |       |       |       |      |      |
| 5                      | 10M71234.D | CAL BNA@80PPM  |                    |        |        |        |        |        |        |        |        |         |           |                |                    |      |       |       |      |       |       |       |       |       |       |      |      |
| 7                      | 10M71232.D | CAL BNA@160PPM |                    |        |        |        |        |        |        |        |        |         |           |                |                    |      |       |       |      |       |       |       |       |       |       |      |      |
| 9                      | 10M71236.D | CAL BNA@5PPM   |                    |        |        |        |        |        |        |        |        |         |           |                |                    |      |       |       |      |       |       |       |       |       |       |      |      |
| Compound               | Col Mr     | Fit            | RF1                | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9    | AvgRt   | RT        | Corr1          | Corr2              | %Rsd | Lvl1  | Lvl2  | Lvl3 | Lvl4  | Lvl5  | Lvl6  | Lvl7  | Lvl8  | Lvl9  |      |      |
| Hexachlorocyclopenta   | 1          | 0              | Qua                | 0.1966 | 0.0508 | 0.0874 | 0.1670 | 0.2322 | 0.2512 | 0.2685 | 0.2510 | 0.1887  | 5.7       | 0.990          | 0.995              | 43   | 0.05  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,4,6-Trichlorophenol  | 1          | 0              | Avg                | 0.3356 | 0.3205 | 0.2713 | 0.3391 | 0.3641 | 0.3563 | 0.3471 | 0.3306 | 0.3337  | 6.7       | 0.997          | 0.999              | 8.6  | 0.20  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,4,5-Trichlorophenol  | 1          | 0              | Avg                | 0.3415 | 0.3446 | 0.2925 | 0.3705 | 0.3648 | 0.3779 | 0.3822 | 0.3562 | 0.3547  | 7.1       | 0.997          | 0.998              | 8.1  | 0.20  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2-Fluorobiphenyl       | 1          | 0              | Avg                | 1.2471 | 1.4413 | 1.1571 | 1.3128 | 1.2871 | 1.2663 | 1.3061 | 1.2273 | 1.2877  | 7.4       | 0.999          | 0.999              | 6.4  |       | 25.00 | 1.00 | 5.00  | 10.00 | 40.00 | 60.00 | 80.00 | 98.00 |      |      |
| 2-Chloronaphthalene    | 1          | 0              | Avg                | 1.0298 | 1.2707 | 0.9270 | 1.0509 | 1.0580 | 1.0795 | 1.0460 | 0.9877 | 1.0677  | 8.5       | 0.997          | 0.999              | 9.4  | 0.80  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 1,4-Dimethylnaphthale  | 1          | 0              | Avg                | 0.9301 | 1.1310 | 0.8336 | 0.9664 | 0.8947 | 0.8151 | 0.7401 | 0.6628 | 0.872   | 8.13      | 0.984          | 0.999              | 17   |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Dimethylnaphthalenes   | 1          | 0              | Avg                | 0.9301 | 1.1310 | 0.8336 | 0.9664 | 0.8947 | 0.8151 | 0.7401 | 0.6628 | 0.872   | 8.13      | 0.984          | 0.999              | 17   |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Dibhenyl Ether         | 1          | 0              | Avg                | 0.7971 | 0.8963 | 0.7002 | 0.8074 | 0.8258 | 0.7968 | 0.7571 | 0.6796 | 0.783   | 7.91      | 0.989          | 0.998              | 8.9  |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2-Nitroaniline         | 1          | 0              | Avg                | 0.3804 | 0.3681 | 0.3120 | 0.3959 | 0.3856 | 0.3907 | 0.3873 | 0.3824 | 0.375   | 7.93      | 1.00           | 1.00               | 7.2  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Coumarin               | 1          | 0              | Avg                | 0.4021 | 0.4793 | 0.3507 | 0.4279 | 0.4159 | 0.3812 | 0.3494 | 0.3049 | 0.389   | 8.12      | 0.976          | 0.999              | 14   |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Acenaphthylene         | 1          | 0              | Avg                | 1.5715 | 1.7053 | 1.3744 | 1.5893 | 1.5918 | 1.5445 | 1.5849 | 1.5011 | 1.56    | 8.21      | 0.999          | 0.999              | 6.0  | 0.90  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Dimethylbiphenalate    | 1          | 0              | Avg                | 1.2354 | 1.3241 | 1.0966 | 1.2762 | 1.2283 | 1.2365 | 1.2426 | 1.2290 | 1.23    | 8.07      | 1.00           | 1.00               | 5.2  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,6-Dinitrotoluene     | 1          | 0              | Avg                | 0.2777 | 0.2376 | 0.2508 | 0.2947 | 0.2760 | 0.2550 | 0.2373 | 0.2242 | 0.257   | 8.13      | 0.991          | 1.00               | 9.4  | 0.20  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Acenaphthene           | 1          | 0              | Avg                | 1.0818 | 1.2231 | 1.0239 | 1.1839 | 1.0898 | 1.0931 | 1.0696 | 1.0233 | 1.10    | 8.36      | 0.998          | 1.00               | 6.5  | 0.90  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 3-Nitroaniline         | 1          | 0              | Qua                | 0.2932 | 0.2879 | 0.2036 | 0.3167 | 0.3069 | 0.2916 | 0.2767 | 0.2642 | 0.280   | 8.28      | 0.995          | 0.999              | 12   | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,4-Dinitrophenol      | 1          | 0              | Qua                | 0.1350 | 0.0621 | 0.0942 | 0.1700 | 0.1857 | 0.2035 | 0.2066 | 0.2066 | 0.15    | 8.38      | 0.992          | 0.999              | 37   | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Dibenzofuran           | 1          | 0              | Qua                | 1.5224 | 1.7385 | 1.4063 | 1.6233 | 1.6053 | 1.5446 | 1.5149 | 1.4965 | 1.58    | 8.52      | 0.999          | 1.00               | 7.8  | 0.80  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |      |
| 2,4-Dinitrotoluene     | 1          | 0              | Qua                | 0.3896 | 0.3299 | 0.3054 | 0.3898 | 0.4092 | 0.4022 | 0.4134 | 0.4026 | 0.380   | 8.49      | 1.00           | 1.00               | 11   | 0.20  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 4-Nitrophenol          | 1          | 0              | Qua                | 0.2093 | 0.318  | 0.1411 | 0.2024 | 0.2275 | 0.2389 | 0.2363 | 0.2436 | 0.204   | 8.42      | 0.999          | 1.00               | 22   | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,3,4,6-Tetrachlorophe | 1          | 0              | Avg                | 0.3144 | 0.3289 | 0.2508 | 0.3123 | 0.3081 | 0.3159 | 0.3199 | 0.3156 | 0.308   | 8.63      | 0.999          | 0.999              | 7.8  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Fluorene               | 1          | 0              | Avg                | 1.2227 | 1.4858 | 1.0918 | 1.2693 | 1.2969 | 1.2572 | 1.2483 | 1.2041 | 1.26    | 8.85      | 0.999          | 1.00               | 8.8  | 0.90  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 4-Chlorophenyl-phenyl  | 1          | 0              | Avg                | 0.5903 | 0.6732 | 0.5160 | 0.6290 | 0.6134 | 0.5998 | 0.5969 | 0.5889 | 0.601   | 8.83      | 1.00           | 1.00               | 7.3  | 0.40  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Diethylbiphenalate     | 1          | 0              | Avg                | 1.2048 | 1.2978 | 1.0497 | 1.2739 | 1.2542 | 1.2241 | 1.2297 | 1.2201 | 1.22    | 8.70      | 1.00           | 1.00               | 6.2  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 4-Nitroaniline         | 1          | 0              | Qua                | 0.3377 | 0.2393 | 0.2605 | 0.3325 | 0.3472 | 0.3568 | 0.3621 | 0.3661 | 0.325   | 8.86      | 1.00           | 1.00               | 15   | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Atrazine               | 1          | 0              | Avg                | 0.3898 | 0.4477 | 0.3377 | 0.4270 | 0.4113 | 0.4099 | 0.4281 | 0.4218 | 0.409   | 9.47      | 0.999          | 0.999              | 8.2  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 4,6-Dinitro-2-methylph | 1          | 0              | Qua                | 0.1128 | 0.0669 | 0.0967 | 0.1271 | 0.1315 | 0.1326 | 0.1334 | 0.1334 | 0.114   | 8.88      | 0.999          | 1.00               | 22   | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| n-Nitrosodiphenylamin  | 1          | 0              | Avg                | 0.5905 | 0.6958 | 0.5374 | 0.6104 | 0.6250 | 0.5951 | 0.5976 | 0.5725 | 0.603   | 8.94      | 0.999          | 0.999              | 7.6  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 2,4,6-Tribromophenol   | 1          | 0              | Qua                | 0.0916 | 0.0926 | 0.0755 | 0.0828 | 0.0946 | 0.0917 | 0.0964 | 0.0897 | 0.0894  | 9.08      | 0.997          | 0.998              | 7.7  |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 1,2-Diphenylhydrazine  | 1          | 0              | Avg                | 0.7055 | 0.7464 | 0.5832 | 0.7208 | 0.7961 | 0.7771 | 0.7929 | 0.7640 | 0.736   | 8.98      | 0.998          | 0.998              | 9.5  |       | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| 4-Bromophenyl-phenyl   | 1          | 0              | Avg                | 0.1895 | 0.1932 | 0.1631 | 0.1812 | 0.1911 | 0.1903 | 0.1910 | 0.1822 | 0.185   | 9.32      | 0.999          | 0.999              | 5.4  | 0.10  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Hexachlorobenzene      | 1          | 0              | Avg                | 0.2032 | 0.2576 | 0.1645 | 0.1958 | 0.1994 | 0.1947 | 0.1903 | 0.1859 | 0.199   | 9.39      | 0.992          | 0.993              | 13   | 0.10  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| N-Octadecane           | 1          | 0              | Avg                | 0.3603 | 0.3291 | 0.3040 | 0.3470 | 0.3612 | 0.3541 | 0.3373 | 0.3142 | 0.338   | 9.64      | 0.994          | 0.999              | 6.3  | 0.05  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Pentachlorophenol      | 1          | 0              | Qua                | 0.0967 | 0.0538 | 0.0682 | 0.1070 | 0.1157 | 0.1180 | 0.1194 | 0.1194 | 0.0970  | 9.59      | 0.998          | 0.999              | 27   | 0.05  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Phenanthrene           | 1          | 0              | Avg                | 1.0596 | 1.2312 | 0.9566 | 1.0734 | 1.0822 | 1.0477 | 1.0329 | 0.9706 | 1.06    | 9.83      | 0.997          | 0.999              | 8.0  | 0.70  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Anthracene             | 1          | 0              | Avg                | 1.0699 | 1.2487 | 0.9437 | 1.0377 | 1.1046 | 1.0843 | 1.0727 | 1.0187 | 1.07    | 9.88      | 0.998          | 0.999              | 8.1  | 0.70  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Carbazole              | 1          | 0              | Avg                | 0.9928 | 1.0429 | 0.8676 | 0.9858 | 1.0048 | 0.9929 | 0.9763 | 0.9430 | 0.976   | 10.05     | 0.999          | 1.00               | 5.3  | 0.01  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |      |      |
| Di-n-butylphthalate    | 1          | 0              | Qua                | 1.1862 | 1.069  | 0.9245 | 1.1037 | 1.2128 | 1.1911 | 1.2006 | 1.1208 | 1.12    | 10.42     | 0.998          | 0.999              | 8    |       |       |      |       |       |       |       |       |       |      |      |

Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria (if applicable)

Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 10.6

8101509 0287

| Level #: | Data File: | Cal Identifier: | Analysis Date/Time | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |
|----------|------------|-----------------|--------------------|----------|------------|-----------------|--------------------|
| 1        | 10M71237.D | CAL BNA@50PPM   | 10/08/18 11:51     | 2        | 10M71230.D | CAL BNA@2PPM    | 10/08/18 09:15     |
| 3        | 10M71229.D | CAL BNA@10PPM   | 10/08/18 08:51     | 4        | 10M71235.D | CAL BNA@20PPM   | 10/08/18 11:06     |
| 5        | 10M71234.D | CAL BNA@80PPM   | 10/08/18 10:44     | 6        | 10M71233.D | CAL BNA@120PPM  | 10/08/18 10:22     |
| 7        | 10M71232.D | CAL BNA@160PPM  | 10/08/18 10:00     | 8        | 10M71231.D | CAL BNA@196PPM  | 10/08/18 09:38     |
| 9        | 10M71236.D | CAL BNA@5PPM    | 10/08/18 11:28     |          |            |                 |                    |

| Compound                | Col | M | F   | RF1    | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9   | AvgRt | RT    | Corr1 | Corr2 | %Rsd | LV1   | LV2  | LV3   | LV4   | LV5   | LV6   | LV7   | LV8   | LV9 |
|-------------------------|-----|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-----|
| 4,4'-DDE                | 1   | 0 | Avg | 0.2406 | 0.2750 | 0.2094 | 0.2322 | 0.2418 | 0.2678 | 0.2769 | 0.2901 | ----- | 0.254 | 11.54 | 0.996 | 1.00  | 11   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 4,4'-DDD                | 1   | 0 | Avg | 0.4141 | 0.4161 | 0.3306 | 0.4096 | 0.4292 | 0.4717 | 0.4747 | 0.5091 | ----- | 0.432 | 11.94 | 0.994 | 0.999 | 13   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Butylbenzophthalate     | 1   | 0 | Qua | 0.5135 | 0.4061 | 0.3742 | 0.4971 | 0.5645 | 0.6092 | 0.6329 | 0.6921 | ----- | 0.536 | 12.18 | 0.993 | 1.00  | 21   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 4,4'-DDT                | 1   | 0 | Avg | 0.3676 | 0.3388 | 0.2963 | 0.3567 | 0.3949 | 0.4083 | 0.4362 | 0.4647 | ----- | 0.383 | 12.29 | 0.993 | 1.00  | 14   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 3,3'-Dichlorobenzidine  | 1   | 0 | Qua | 0.3712 | 0.3652 | 0.2515 | 0.3796 | 0.3613 | 0.3709 | 0.3592 | 0.3564 | ----- | 0.352 | 12.82 | 0.999 | 1.00  | 12   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzolanthracene        | 1   | 0 | Avg | 1.0377 | 1.2432 | 0.9244 | 1.0645 | 1.0764 | 1.1433 | 1.1873 | 1.2015 | ----- | 1.11  | 12.85 | 0.998 | 1.00  | 9.4  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Chrysene                | 1   | 0 | Avg | 1.0303 | 1.2216 | 0.8897 | 1.0416 | 1.0424 | 1.1118 | 1.1459 | 1.2355 | ----- | 1.09  | 12.89 | 0.995 | 1.00  | 10   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| bis(2-Ethylhexyl)phthal | 1   | 0 | Avg | 0.7455 | 0.7080 | 0.5999 | 0.7392 | 0.7806 | 0.8294 | 0.8522 | 0.8665 | ----- | 0.765 | 12.87 | 0.997 | 1.00  | 11   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Di-n-octylphthalate     | 1   | 0 | Qua | 1.2581 | 1.0359 | 0.9919 | 1.1747 | 1.3239 | 1.3908 | 1.3765 | 1.3330 | ----- | 1.24  | 13.62 | 0.999 | 0.999 | 12   | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzobifluoranthene     | 1   | 0 | Avg | 1.0814 | 1.2397 | 0.8877 | 1.0369 | 1.1498 | 1.1263 | 1.0829 | 1.0793 | ----- | 1.09  | 14.07 | 0.999 | 0.999 | 9.3  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzokifluoranthene     | 1   | 0 | Avg | 1.0456 | 1.2451 | 0.9256 | 1.0853 | 1.0834 | 1.0734 | 1.1124 | 0.9865 | ----- | 1.07  | 14.10 | 0.993 | 0.996 | 8.7  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzolaprene            | 1   | 0 | Avg | 1.0499 | 1.1916 | 0.8958 | 1.0233 | 1.0834 | 1.0913 | 1.0690 | 1.0284 | ----- | 1.05  | 14.44 | 0.999 | 0.999 | 7.9  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Indenofl,2,3-cdlpyren   | 1   | 0 | Avg | 1.1198 | 1.2702 | 0.9614 | 1.0986 | 1.1066 | 1.1194 | 1.1236 | 1.0766 | ----- | 1.11  | 15.86 | 0.999 | 0.999 | 7.6  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Dibenzola,h,lanthracen  | 1   | 0 | Avg | 0.9448 | 0.9525 | 0.8351 | 0.8996 | 0.9505 | 0.9529 | 0.9372 | 0.8905 | ----- | 0.920 | 15.87 | 0.998 | 0.999 | 4.6  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzola,h,lberylene     | 1   | 0 | Avg | 0.9532 | 1.1477 | 0.8201 | 0.9510 | 0.9855 | 0.9970 | 0.9846 | 0.9997 | ----- | 0.980 | 16.25 | 1.00  | 1.00  | 9.1  | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 10.6

8101509 0288

SampleID : CAL BNA@50PPM  
Data File: 10M71237.D  
Acq On : 10/ 8/18 11:51

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 10M 1000.M  
Qt On : 10/08/18 12:08  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|---------|--------|----------|
| Internal Standards             |        |      |          |         |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 45717    | 40.00   | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 91441    | 40.00   | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 347375   | 40.00   | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 216810   | 40.00   | ng     | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 377671   | 40.00   | ng     | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 382304   | 40.00   | ng     | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 369171   | 40.00   | ng     | 0.00     |
| System Monitoring Compounds    |        |      |          |         |        |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 130322   | 54.15   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 54.15% |          |
| 16) Phenol-d5                  | 5.583  | 99   | 181064   | 51.38   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 51.38% |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 25387    | 22.06   | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 44.12% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 168993   | 24.14   | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 48.28% |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 43257    | 49.93   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 49.93% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 162331   | 24.34   | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 48.68% |          |
| Target Compounds               |        |      |          |         |        |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 52367    | 45.5973 | ng     | 88       |
| 9) Pyridine                    | 3.256  | 79   | 130117   | 43.1946 | ng     | 71       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 74938    | 45.3098 | ng     | 77       |
| 12) Benzaldehyde               | 5.530  | 77   | 70134    | 43.8308 | ng     | 67       |
| 13) Aniline                    | 5.621  | 93   | 185917   | 54.4436 | ng     | 75       |
| 14) Pentachloroethane          | 5.663  | 117  | 48118    | 47.6375 | ng     | 68       |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 130716   | 47.5658 | ng     | 79       |
| 17) Phenol                     | 5.599  | 94   | 185139   | 48.3720 | ng     | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 147960   | 51.7011 | ng     | 75       |
| 19) N-Decane                   | 5.754  | 57   | 116862   | 45.5087 | ng     | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 158254   | 49.8495 | ng     | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 162659   | 47.1612 | ng     | 99       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 160994   | 49.0120 | ng     | 97       |
| 24) Benzyl alcohol             | 6.011  | 108  | 92784    | 48.7459 | ng     | 76       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 153799   | 49.2382 | ng     | 80       |
| 26) 2-Methylphenol             | 6.097  | 108  | 131338   | 46.1474 | ng     | 98       |
| 27) Acetophenone               | 6.225  | 105  | 198016   | 48.7818 | ng     | 72       |
| 28) Hexachloroethane           | 6.305  | 117  | 66970    | 49.4736 | ng     | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 92968    | 44.9208 | ng     | 79       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 134849   | 47.1852 | ng     | 98       |
| 33) Nitrobenzene               | 6.359  | 77   | 147375   | 44.4097 | ng     | 81       |
| 34) Isophorone                 | 6.541  | 82   | 252736   | 44.0425 | ng     | 86       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 81702    | 46.4798 | ng     | 92       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 145143   | 47.1134 | ng     | 99       |
| 37) Benzoic Acid               | 6.712  | 105  | 117202   | 55.0885 | ng     | 85       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 162040   | 44.3067 | ng     | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 130119   | 47.3942 | ng     | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 143765   | 48.2929 | ng     | 98       |
| 41) Naphthalene                | 6.915  | 128  | 449648   | 46.8628 | ng     | 98       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 169659m  | 45.3969 | ng     |          |
| 43) Hexachlorobutadiene        | 7.000  | 225  | 80902    | 51.1580 | ng     | 94       |
| 44) Caprolactam                | 7.225  | 113  | 49068    | 46.0620 | ng     | 62       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 120560   | 44.1507 | ng     | 74       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 293756   | 44.7266 | ng     | 98       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 292495   | 45.6763 | ng     | 94       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 581411m  | 90.0162 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 372079   | 44.3448 | ng     | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.583  | 216  | 146152   | 47.4642 | ng     | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 53295    | 39.7986 | ng     | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 90955    | 49.1363 | ng     | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 92575    | 45.7878 | ng     | 100      |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 279089   | 46.6850 | ng     | 94       |
| 57) 1,4-Dimethylnaphthalene    | 8.134  | 156  | 252091   | 49.5927 | ng     | 85       |
| 58) Dimethylnaphthalenes (...) | 8.134  | 156  | 252091   | 49.5927 | ng     | 85       |
| 59) Diphenyl Ether             | 7.910  | 170  | 216025   | 47.0289 | ng     | 81       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 103105   | 48.1926 | ng     | 36       |
| 61) Coumarin                   | 8.118  | 146  | 108998   | 43.3886 | ng     | 60       |
| 62) Acenaphthylene             | 8.215  | 152  | 425899   | 45.7228 | ng     | 99       |
| 63) Dimethylphthalate          | 8.070  | 163  | 334831   | 48.8042 | ng     | 98       |
| 64) 2,6-Dinitrotoluene         | 8.134  | 165  | 75278    | 48.3397 | ng     | 66       |
| 65) Acenaphthene               | 8.364  | 153  | 293183   | 46.3417 | ng     | 99       |

SampleID : CAL BNA@50PPM  
 Data File: 10M71237.D  
 Acq On : 10/ 8/18 11:51

Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:08  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QI on | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|-------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.284  | 138   | 79472    | 48.0860 | ng    | 75       |
| 67)  | 2,4-Dinitrophenol         | 8.380  | 184   | 36604    | 43.7134 | ng    | 30       |
| 68)  | Dibenzofuran              | 8.520  | 168   | 412590   | 48.1360 | ng    | 87       |
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165   | 105566   | 50.1306 | ng    | 65       |
| 70)  | 4-Nitrophenol             | 8.418  | 65    | 56734    | 41.2720 | ng    | 42       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.626  | 232   | 85222    | 54.0762 | ng    | 83       |
| 72)  | Fluorene                  | 8.846  | 166   | 331382   | 46.9626 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.830  | 204   | 159990   | 47.7558 | ng    | 81       |
| 74)  | Diethylphthalate          | 8.701  | 149   | 326517   | 47.0733 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.856  | 138   | 91528    | 46.6464 | ng    | 90       |
| 76)  | Atrazine                  | 9.472  | 200   | 105643   | 49.1706 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.883  | 198   | 53278    | 47.7283 | ng    | 58       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169   | 278793   | 45.4573 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77    | 333058   | 47.2520 | ng    | 86       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248   | 89495    | 47.8965 | ng    | 85       |
| 83)  | Hexachlorobenzene         | 9.391  | 284   | 95960    | 48.4180 | ng    | 72       |
| 84)  | N-Octadecane              | 9.637  | 57    | 170112   | 43.1868 | ng    | 71       |
| 85)  | Pentachlorophenol         | 9.595  | 266   | 45678    | 54.5512 | ng    | 91       |
| 86)  | Phenanthrene              | 9.830  | 178   | 500249   | 47.5723 | ng    | 99       |
| 87)  | Anthracene                | 9.883  | 178   | 505103   | 47.1067 | ng    | 99       |
| 88)  | Carbazole                 | 10.055 | 167   | 468713   | 47.2938 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149   | 560951   | 47.4675 | ng    | 98       |
| 90)  | Fluoranthene              | 11.167 | 202   | 531817   | 48.5826 | ng    | 85       |
| 92)  | Pyrene                    | 11.429 | 202   | 546923   | 46.7639 | ng    | 83       |
| 93)  | Benzidine                 | 11.317 | 184   | 242154   | 50.4583 | ng    | 80       |
| 95)  | 4,4'-DDE                  | 11.536 | 246   | 115007   | 51.7491 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.937 | 235   | 197925   | 50.9751 | ng    | 91       |
| 97)  | Butylbenzylphthalate      | 12.183 | 149   | 245414   | 44.9422 | ng    | 79       |
| 98)  | 4,4'-DDT                  | 12.290 | 235   | 175673   | 50.4647 | ng    | 94       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.820 | 252   | 177408   | 49.4403 | ng    | 96       |
| 100) | Benzo[a]anthracene        | 12.852 | 228   | 495904   | 45.9269 | ng    | 97       |
| 101) | Chrysene                  | 12.895 | 228   | 492361   | 47.8802 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149   | 356274   | 46.9046 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.617 | 149   | 580567   | 45.7140 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 14.066 | 252   | 499050   | 47.4679 | ng    | 93       |
| 106) | Benzo[k]fluoranthene      | 14.098 | 252   | 482512   | 46.8382 | ng    | 92       |
| 107) | Benzo[a]pyrene            | 14.435 | 252   | 484499   | 47.8367 | ng    | 91       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.863 | 276   | 516782   | 47.0738 | ng    | 85       |
| 109) | Dibenzo[a,h]anthracene    | 15.874 | 278   | 436023   | 47.0007 | ng    | 90       |
| 110) | Benzo[g,h,i]perylene      | 16.254 | 276   | 439905   | 46.6103 | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@2PPM  
Data File: 10M71230.D  
Acq On : 10/ 8/18 09:15

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 10M 1001509 0291  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|------------|--------|-------|----------|
| Internal Standards             |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 46994      | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 93036      | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 347884     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 222068     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 396093     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 408904     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 391574     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |        |       |          |
| 11) 2-Fluorophenol             | 4.727  | 112  | 6188m      | 2.50   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 2.50%  |       |          |
| 16) Phenol-d5                  | 5.588  | 99   | 8282       | 2.29   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 2.29%  |       |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 816        | 0.71   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 1.42%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 8002       | 1.12   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 2.24%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 1835       | 2.04   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 2.04%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 7693       | 1.08   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 2.16%  |       |          |
| Target Compounds               |        |      |            |        |       |          |
| 8) 1,4-Dioxane                 | 2.775  | 88   | 2299m      | 1.9474 | ng    |          |
| 9) Pyridine                    | 3.358  | 79   | 6481m      | 2.0930 | ng    |          |
| 10) N-Nitrosodimethylamine     | 3.246  | 74   | 3248m      | 1.9105 | ng    |          |
| 12) Benzaldehyde               | 5.535  | 77   | 2469       | 1.5011 | ng    | 65       |
| 13) Aniline                    | 5.626  | 93   | 5496       | 1.5657 | ng    | 94       |
| 14) Pentachloroethane          | 5.663  | 117  | 2353       | 2.2662 | ng    | 79       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 6490       | 2.2974 | ng    | 96       |
| 17) Phenol                     | 5.599  | 94   | 7356       | 1.8697 | ng    | 84       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 6276       | 2.1334 | ng    | 71       |
| 19) N-Decane                   | 5.749  | 57   | 5404       | 2.0473 | ng    | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 7810       | 2.3933 | ng    | 86       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 8241       | 2.3484 | ng    | 82       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 8271       | 2.4748 | ng    | 96       |
| 24) Benzyl alcohol             | 6.016  | 108  | 3614       | 1.8661 | ng    | 91       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 7325       | 2.3049 | ng    | 79       |
| 26) 2-Methylphenol             | 6.102  | 108  | 6646       | 2.2951 | ng    | 74       |
| 27) Acetophenone               | 6.225  | 105  | 9182       | 2.2232 | ng    | 67       |
| 28) Hexachloroethane           | 6.305  | 117  | 2390m      | 1.7353 | ng    |          |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 3767       | 1.7890 | ng    | 82       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 5963       | 2.0732 | ng    | 87       |
| 33) Nitrobenzene               | 6.359  | 77   | 6278       | 1.8890 | ng    | 69       |
| 34) Isophorone                 | 6.541  | 82   | 11395      | 1.9828 | ng    | 86       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 3368       | 1.9132 | ng    | 84       |
| 36) 2,4-Dimethylphenol         | 6.631  | 107  | 7237       | 2.3789 | ng    | 94       |
| 37) Benzoic Acid               | 0.000  |      | 0          | N.D. d |       |          |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 7013       | 1.9148 | ng    | 93       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 5912       | 2.1502 | ng    | 77       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 6271       | 2.1034 | ng    | 90       |
| 41) Naphthalene                | 6.915  | 128  | 22475      | 2.3342 | ng    | 93       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 5935       | 1.4632 | ng    | 88       |
| 43) Hexachlorobutadiene        | 7.000  | 225  | 3712       | 2.3438 | ng    | 88       |
| 44) Caprolactam                | 7.198  | 113  | 1555       | 1.4576 | ng    | 44       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 4763       | 1.7417 | ng    | 59       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 14287      | 2.1721 | ng    | 94       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 14381      | 2.2425 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 28855m     | 4.4609 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 18235      | 2.1701 | ng    | 90       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.583  | 216  | 7563       | 2.3980 | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 564        | 0.4355 | ng    | 58       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 3559m      | 1.8771 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 3827       | 1.8480 | ng    | 92       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 14110m     | 2.3044 | ng    |          |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 12558      | 2.4120 | ng    | 80       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 12558      | 2.4120 | ng    | 80       |
| 59) Diphenyl Ether             | 7.910  | 170  | 9952       | 2.1153 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 4088       | 1.8655 | ng    | 20       |
| 61) Coumarin                   | 8.118  | 146  | 5322       | 2.0684 | ng    | 79       |
| 62) Acenaphthylene             | 8.209  | 152  | 18935      | 1.9847 | ng    | 94       |
| 63) Dimethylphthalate          | 8.065  | 163  | 14703      | 2.0923 | ng    | 88       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 2639       | 1.6545 | ng    | 92       |
| 65) Acenaphthene               | 8.359  | 153  | 13581      | 2.0958 | ng    | 96       |

SampleID : CAL BNA@2PPM  
 Data File: 10M71230.D  
 Acq On : 10/ 8/18 09:15

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.284  | 138  | 3197     | 1.8886 | ng    | 77       |
| 57)  | 2,4-Dinitrophenol         | 0.000  |      | 0        | N.D.   |       |          |
| 68)  | Dibenzofuran              | 8.520  | 168  | 19304    | 2.1918 | ng    | 90       |
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165  | 3663     | 1.6983 | ng    | 61       |
| 70)  | 4-Nitrophenol             | 8.429  | 65   | 1464     | 1.0398 | ng    | 85       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.632  | 232  | 3652     | 2.2624 | ng    | 70       |
| 72)  | Fluorene                  | 8.846  | 166  | 16498    | 2.2827 | ng    | 93       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.824  | 204  | 7475     | 2.1784 | ng    | 75       |
| 74)  | Diethylphthalate          | 8.696  | 149  | 14410    | 2.0283 | ng    | 90       |
| 75)  | 4-Nitroaniline            | 8.851  | 138  | 2657     | 1.3221 | ng    | 81       |
| 76)  | Atrazine                  | 9.466  | 200  | 4971     | 2.2589 | ng    | 81       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.883  | 198  | 886      | 0.8077 | ng    | 27       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169  | 13781    | 2.1425 | ng    | 91       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77   | 14784    | 1.9999 | ng    | 77       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248  | 3828     | 1.9534 | ng    | 75       |
| 83)  | Hexachlorobenzene         | 9.391  | 284  | 5102     | 2.4546 | ng    | 63       |
| 84)  | N-Octadecane              | 9.637  | 57   | 6518     | 1.5778 | ng    | 56       |
| 85)  | Pentachlorophenol         | 0.000  |      | 0        | N.D. d |       |          |
| 86)  | Phenanthrene              | 9.830  | 178  | 24384    | 2.2110 | ng    | 94       |
| 87)  | Anthracene                | 9.883  | 178  | 24731    | 2.1992 | ng    | 93       |
| 88)  | Carbazole                 | 10.055 | 167  | 20656    | 1.9873 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 21923    | 1.7596 | ng    | 99       |
| 90)  | Fluoranthene              | 11.167 | 202  | 24958    | 2.1739 | ng    | 86       |
| 92)  | Pyrene                    | 11.429 | 202  | 26112    | 2.0874 | ng    | 82       |
| 93)  | Benzidine                 | 11.317 | 184  | 5423     | 1.0488 | ng    | 75       |
| 95)  | 4,4'-DDE                  | 11.536 | 246  | 5623     | 2.3656 | ng    | 91       |
| 96)  | 4,4'-DDD                  | 11.937 | 235  | 8508     | 2.0487 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.183 | 149  | 8304     | 1.4218 | ng    | 82       |
| 98)  | 4,4'-DDT                  | 12.296 | 235  | 6927     | 1.8604 | ng    | 96       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.814 | 252  | 7467     | 1.8566 | ng    | 73       |
| 100) | Benzo[a]anthracene        | 12.847 | 228  | 25419    | 2.2010 | ng    | 97       |
| 101) | Chrysene                  | 12.889 | 228  | 24977    | 2.2709 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 14476    | 1.7818 | ng    | 97       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 20283    | 1.5057 | ng    | 96       |
| 105) | Benzo[b]fluoranthene      | 14.061 | 252  | 24272m   | 2.1766 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 14.093 | 252  | 24378m   | 2.2310 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.430 | 252  | 23331    | 2.1718 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.852 | 276  | 24870    | 2.1358 | ng    | 67       |
| 109) | Dibenzo[a,h]anthracene    | 15.874 | 278  | 18649    | 1.8952 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 16.243 | 276  | 22471    | 2.2447 | ng    | 94       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@10PPM  
Data File: 10M71229.D  
Acq On : 10/ 8/18 08:51

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M\_1008N  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

8101509 0294

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| -----                          |        |      |          |         |       |          |
| Internal Standards             |        |      |          |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.738  | 96   | 50609    | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 99323    | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 356054   | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 223314   | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 398598   | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 410428   | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 388983   | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |         |       |          |
| 11) 2-Fluorophenol             | 4.727  | 112  | 23998m   | 9.01    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 9.01% |          |
| 16) Phenol-d5                  | 5.583  | 99   | 31536    | 8.08    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.08% |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 4262     | 3.61    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 7.22% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 32300    | 4.48    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.96% |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 7525     | 8.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.31% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 29871    | 4.17    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.34% |          |
| Target Compounds               |        |      |          |         |       |          |
| 8) 1,4-Dioxane                 | 2.764  | 88   | 10899    | 8.5727  | ng    | 58       |
| 9) Pyridine                    | 3.331  | 79   | 14917    | 4.4733  | ng    | 42       |
| 10) N-Nitrosodimethylamine     | 3.214  | 74   | 12521    | 6.8388  | ng    | 82       |
| 12) Benzaldehyde               | 5.530  | 77   | 15376    | 8.6805  | ng    | 73       |
| 13) Aniline                    | 5.621  | 93   | 27869m   | 7.3722  | ng    |          |
| 14) Pentachloroethane          | 5.658  | 117  | 9327     | 8.3413  | ng    | 83       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 22375    | 7.3549  | ng    | 75       |
| 17) Phenol                     | 5.594  | 94   | 32088    | 7.5734  | ng    | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 26224    | 8.2776  | ng    | 73       |
| 19) N-Decane                   | 5.749  | 57   | 21846    | 7.6850  | ng    | 74       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 30560    | 8.6958  | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 31776    | 8.4820  | ng    | 95       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 29929    | 8.3883  | ng    | 31       |
| 24) Benzyl alcohol             | 6.011  | 108  | 16646    | 8.0513  | ng    | 73       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 29692    | 8.7514  | ng    | 82       |
| 26) 2-Methylphenol             | 6.097  | 108  | 24558    | 7.9440  | ng    | 87       |
| 27) Acetophenone               | 6.225  | 105  | 36083    | 8.1837  | ng    | 66       |
| 28) Hexachloroethane           | 6.305  | 117  | 12016    | 8.1723  | ng    | 82       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 16960    | 7.5445  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 24223    | 7.8776  | ng    | 98       |
| 33) Nitrobenzene               | 6.359  | 77   | 26839    | 7.8905  | ng    | 76       |
| 34) Isophorone                 | 6.541  | 82   | 44692    | 7.5983  | ng    | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 12327    | 6.8418  | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 28104    | 9.0074  | ng    | 93       |
| 37) Benzoic Acid               | 6.674  | 105  | 8322     | 4.2957  | ng    | 93       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 29851    | 7.9632  | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 24503    | 8.7074  | ng    | 80       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 26586    | 8.7130  | ng    | 89       |
| 41) Naphthalene                | 6.915  | 128  | 83389    | 8.4641  | ng    | 96       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 23756    | 5.7660  | ng    | 89       |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 14500    | 8.9455  | ng    | 97       |
| 44) Caprolactam                | 7.209  | 113  | 7204     | 6.5978  | ng    | 66       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 20845    | 7.4477  | ng    | 83       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 57447    | 8.5335  | ng    | 91       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 54592    | 8.3173  | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 111980m  | 16.9145 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 71969    | 8.3683  | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 28483    | 8.9807  | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 4881     | 3.7292  | ng    | 70       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 15148    | 7.9450  | ng    | 95       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 16331    | 7.8421  | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 51756    | 8.4054  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 46541    | 8.8891  | ng    | 85       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 46541    | 8.8891  | ng    | 86       |
| 59) Diphenyl Ether             | 7.910  | 170  | 39094    | 8.2629  | ng    | 79       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 17421    | 7.9056  | ng    | 47       |
| 61) Coumarin                   | 8.113  | 146  | 19580    | 7.5672  | ng    | 53       |
| 62) Acenaphthylene             | 8.209  | 152  | 76734    | 7.9979  | ng    | 98       |
| 63) Dimethylphthalate          | 8.065  | 163  | 61224    | 8.6640  | ng    | 97       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 14003    | 8.7301  | ng    | 78       |
| 65) Acenaphthene               | 8.364  | 153  | 57166    | 8.7727  | ng    | 95       |

SampleID : CAL BNA@10PPM  
Data File: 10M71229.D  
Acq On : 10/ 8/18 08:51

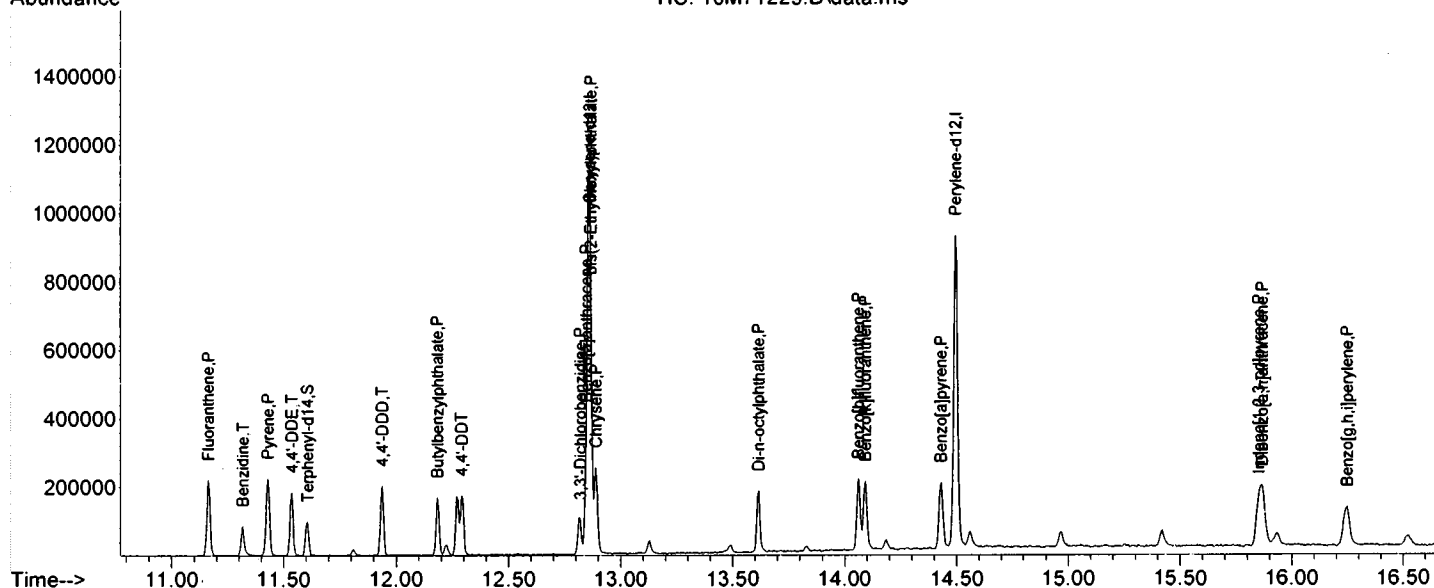
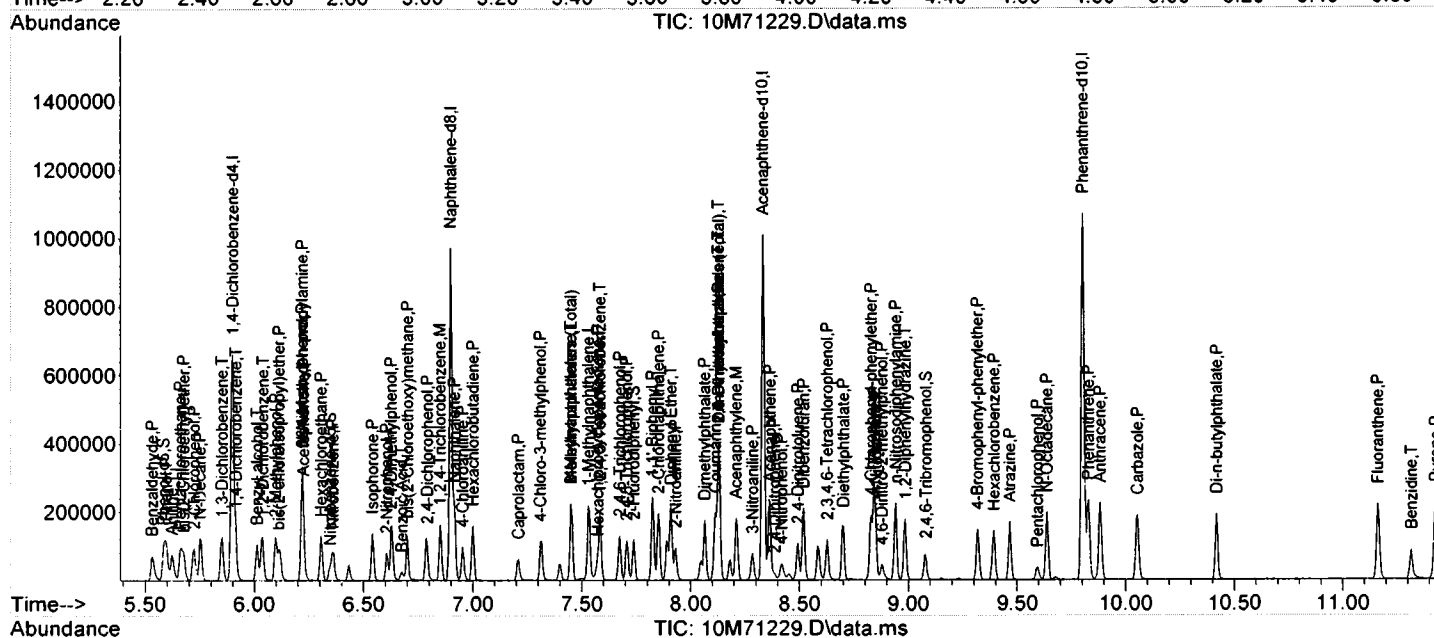
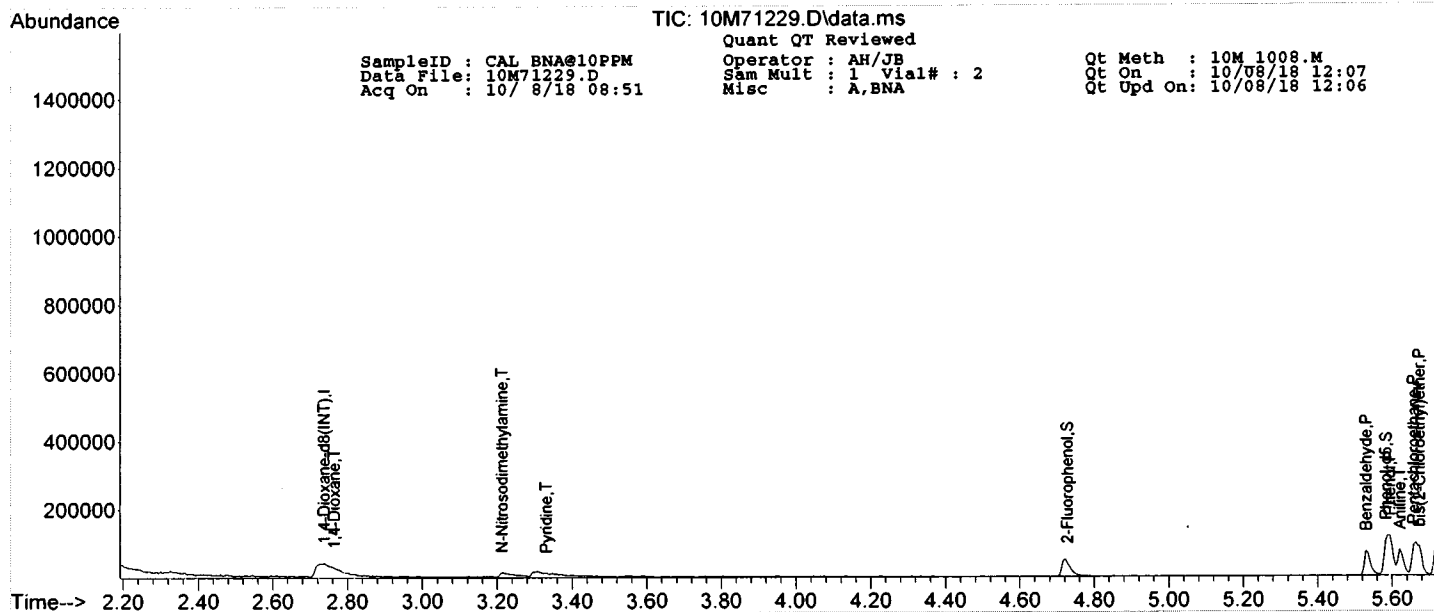
Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 11370    | 6.6793 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.386  | 184  | 3471     | 4.4741 | ng    | 22       |
| 68) Dibenzofuran               | 8.520  | 168  | 78514    | 8.8689 | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 17053    | 7.8622 | ng    | 65       |
| 70) 4-Nitrophenol              | 8.418  | 65   | 7880     | 5.5655 | ng    | 53       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 14004    | 8.6272 | ng    | 80       |
| 72) Fluorene                   | 8.846  | 166  | 60957    | 8.3871 | ng    | 95       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 28809    | 8.3488 | ng    | 82       |
| 74) Diethylphthalate           | 8.701  | 149  | 58605    | 8.2029 | ng    | 93       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 14545    | 7.1968 | ng    | 79       |
| 76) Atrazine                   | 9.466  | 200  | 18856    | 8.5208 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 6676     | 6.0030 | ng    | 32       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 53553    | 8.2734 | ng    | 95       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 58118    | 7.8125 | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 16254    | 8.2422 | ng    | 95       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 16398    | 7.8395 | ng    | 71       |
| 84) N-Octadecane               | 9.637  | 57   | 30293    | 7.2868 | ng    | 83       |
| 85) Pentachlorophenol          | 9.595  | 266  | 5368     | 6.9789 | ng    | 95       |
| 86) Phenanthrene               | 9.830  | 178  | 95334    | 8.5900 | ng    | 96       |
| 87) Anthracene                 | 9.883  | 178  | 94041    | 8.3099 | ng    | 98       |
| 88) Carbazole                  | 10.055 | 167  | 86461    | 8.2660 | ng    | 93       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 92126    | 7.3526 | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 94255    | 8.1583 | ng    | 86       |
| 92) Pyrene                     | 11.429 | 202  | 102843   | 8.1909 | ng    | 83       |
| 93) Benzidine                  | 11.317 | 184  | 33393    | 6.4395 | ng    | 82       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 21493    | 9.0084 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 33925    | 8.1386 | ng    | 87       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 38401    | 6.5504 | ng    | 79       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 30404    | 8.1355 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.820 | 252  | 25813    | 6.4225 | ng    | 88       |
| 100) Benzo[a]anthracene        | 12.847 | 228  | 94857    | 8.1830 | ng    | 98       |
| 101) Chrysene                  | 12.889 | 228  | 91298    | 8.2700 | ng    | 96       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 61557    | 7.5488 | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 96466    | 7.2089 | ng    | 98       |
| 105) Benzo[b]fluoranthene      | 14.061 | 252  | 86334m   | 7.7935 | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 90012m   | 8.2926 | ng    |          |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 87116    | 8.1632 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.853 | 276  | 93495    | 8.0827 | ng    | 83       |
| 109) Dibenzo[a,h]anthracene    | 15.869 | 278  | 81219    | 8.3090 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.248 | 276  | 79752    | 8.0198 | ng    | 94       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@20PPM  
Data File: 10M71235.D  
Acq On : 10/ 8/18 11:06

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 10M\_1068M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcmsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|---------|--------|----------|
| -----                          |        |      |          |         |        |          |
| Internal Standards             |        |      |          |         |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.738  | 96   | 46371    | 40.00   | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 91991    | 40.00   | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 335583   | 40.00   | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 208898   | 40.00   | ng     | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 378035   | 40.00   | ng     | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 375028   | 40.00   | ng     | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 370382   | 40.00   | ng     | 0.00     |
| System Monitoring Compounds    |        |      |          |         |        |          |
| 11) 2-Fluorophenol             | 4.717  | 112  | 49915    | 20.45   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 20.45% |          |
| 16) Phenol-d5                  | 5.583  | 99   | 70881    | 19.83   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 19.83% |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 10190    | 9.16    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 18.32% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 68561    | 10.17   | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 20.34% |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 15653    | 18.18   | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 18.18% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 62767    | 9.59    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 19.18% |          |
| Target Compounds               |        |      |          |         |        |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 22016    | 18.8995 | ng     | 91       |
| 9) Pyridine                    | 3.273  | 79   | 48677    | 15.9313 | ng     | 59       |
| 10) N-Nitrosodimethylamine     | 3.203  | 74   | 30057    | 17.9171 | ng     | 80       |
| 12) Benzaldehyde               | 5.530  | 77   | 35486    | 21.8645 | ng     | 79       |
| 13) Aniline                    | 5.621  | 93   | 76799    | 22.1725 | ng     | 74       |
| 14) Pentachloroethane          | 5.658  | 117  | 20699    | 20.2033 | ng     | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 51381    | 18.4331 | ng     | 73       |
| 17) Phenol                     | 5.594  | 94   | 71027    | 18.2958 | ng     | 96       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 59380    | 20.4563 | ng     | 74       |
| 19) N-Decane                   | 5.754  | 57   | 45863    | 17.6082 | ng     | 74       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 64973    | 20.1776 | ng     | 97       |
| 22) 1,4-Dichlorobenzene        | 5.910  | 146  | 66688    | 19.2199 | ng     | 100      |
| 23) 1,2-Dichlorobenzene        | 6.033  | 146  | 66066    | 19.9925 | ng     | 94       |
| 24) Benzyl alcohol             | 6.011  | 108  | 35362    | 18.4670 | ng     | 78       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 62449    | 19.8733 | ng     | 85       |
| 26) 2-Methylphenol             | 6.097  | 108  | 53716    | 18.7610 | ng     | 92       |
| 27) Acetophenone               | 6.225  | 105  | 79324    | 19.4248 | ng     | 68       |
| 28) Hexachloroethane           | 6.305  | 117  | 26583    | 19.5206 | ng     | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 39326    | 18.8881 | ng     | 80       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 53210    | 18.6352 | ng     | 96       |
| 33) Nitrobenzene               | 6.359  | 77   | 59781    | 18.6473 | ng     | 81       |
| 34) Isophorone                 | 6.541  | 82   | 102777   | 18.5396 | ng     | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 33148    | 19.5203 | ng     | 81       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 60574    | 20.5237 | ng     | 93       |
| 37) Benzoic Acid               | 6.685  | 105  | 35216    | 18.6265 | ng     | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 65257    | 18.4703 | ng     | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 50174    | 18.9174 | ng     | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 59130    | 20.5607 | ng     | 91       |
| 41) Naphthalene                | 6.915  | 128  | 175969   | 18.9598 | ng     | 99       |
| 42) 4-Chloroaniline            | 6.953  | 127  | 70092m   | 18.4661 | ng     |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 31677    | 20.7346 | ng     | 98       |
| 44) Caprolactam                | 7.215  | 113  | 17804    | 17.3006 | ng     | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 46858    | 17.7630 | ng     | 80       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 119464   | 18.8285 | ng     | 96       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 119702   | 19.3496 | ng     | 93       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 237261m  | 38.0244 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 148331   | 18.2995 | ng     | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 58928    | 19.8622 | ng     | 96       |
| 52) Hexachlorocyclopentadiene  | 7.568  | 237  | 17445    | 14.0324 | ng     | 91       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 35419    | 19.8590 | ng     | 93       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 38700    | 19.8661 | ng     | 88       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 109767   | 19.0568 | ng     | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 100948   | 20.6112 | ng     | 88       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 100948   | 20.6112 | ng     | 88       |
| 59) Diphenyl Ether             | 7.910  | 170  | 84340    | 19.0563 | ng     | 76       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 41352    | 20.0605 | ng     | 52       |
| 61) Coumarin                   | 8.119  | 146  | 44696    | 18.4659 | ng     | 63       |
| 62) Acenaphthylene             | 8.209  | 152  | 166003   | 18.4964 | ng     | 99       |
| 63) Dimethylphthalate          | 8.065  | 163  | 133298   | 20.1651 | ng     | 98       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 30790    | 20.5206 | ng     | 70       |
| 65) Acenaphthene               | 8.365  | 153  | 123659   | 20.2864 | ng     | 87       |

SampleID : CAL BNA@20PPM  
Data File: 10M71235.D  
Acq On : 10/ 8/18 11:06

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 33082    | 20.7750 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.381  | 184  | 9840     | 13.2291 | ng    | 47       |
| 68) Dibenzofuran               | 8.520  | 168  | 169560   | 20.4918 | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 40723    | 20.0707 | ng    | 58       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 21145    | 15.9649 | ng    | 70       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 32629    | 21.4884 | ng    | 84       |
| 72) Fluorene                   | 8.841  | 166  | 132580   | 19.5005 | ng    | 96       |
| 73) 4-Chlorophenyl-phenyle...  | 8.830  | 204  | 65704    | 20.3550 | ng    | 82       |
| 74) Diethylphthalate           | 8.702  | 149  | 133066   | 19.9104 | ng    | 94       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 34734    | 18.3723 | ng    | 89       |
| 76) Atrazine                   | 9.466  | 200  | 44602    | 21.5459 | ng    | 92       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 18279    | 17.0620 | ng    | 33       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 115379   | 18.7945 | ng    | 97       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 136245   | 19.3109 | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 34262    | 18.3189 | ng    | 91       |
| 83) Hexachlorobenzene          | 9.392  | 284  | 37022    | 18.6620 | ng    | 69       |
| 84) N-Octadecane               | 9.638  | 57   | 65595    | 16.6367 | ng    | 74       |
| 85) Pentachlorophenol          | 9.595  | 266  | 12891    | 17.1270 | ng    | 93       |
| 86) Phenanthrene               | 9.830  | 178  | 202903   | 19.2769 | ng    | 100      |
| 87) Anthracene                 | 9.884  | 178  | 196154   | 18.2760 | ng    | 99       |
| 88) Carbazole                  | 10.055 | 167  | 186351   | 18.7850 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 208620   | 17.5761 | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 216457   | 19.7548 | ng    | 86       |
| 92) Pyrene                     | 11.429 | 202  | 222173   | 19.3652 | ng    | 82       |
| 93) Benzidine                  | 11.317 | 184  | 100952   | 21.3519 | ng    | 84       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 43546    | 19.9743 | ng    | 97       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 76810    | 20.1660 | ng    | 90       |
| 97) Butylbenzylphthalate       | 12.184 | 149  | 93231    | 17.4045 | ng    | 78       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 66886    | 19.5868 | ng    | 92       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 71183    | 19.6330 | ng    | 98       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 199614   | 18.8454 | ng    | 97       |
| 101) Chrysene                  | 12.895 | 228  | 195322   | 19.3628 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 138615   | 18.6032 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 217560   | 17.0747 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 192027m  | 18.2052 | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 200989m  | 19.4465 | ng    |          |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 189523   | 18.6512 | ng    | 88       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.853 | 276  | 203457   | 18.4724 | ng    | 81       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 166606   | 17.9004 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.248 | 276  | 176133   | 18.6012 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



8101509 0300

SampleID : CAL BNA@80PPM  
Data File: 10M71234.D  
Acq On : 10/ 8/18 10:44

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 10M\_1000.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| -----                          |        |      |            |          |       |          |
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 46969      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 93648      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 355190     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 221269     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 391542     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 381281     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.499 | 264  | 378763     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 218351     | 88.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 88.31%   |       |          |
| 16) Phenol-d5                  | 5.589  | 99   | 301635     | 83.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 83.31%   |       |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 46826      | 39.79    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 79.58%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 284814     | 39.87    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 79.74%   |       |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 74111      | 81.92    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 81.92%   |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 268031     | 40.30    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 80.60%   |       |          |
| Target Compounds               |        |      |            |          |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 88310      | 74.8442  | ng    | 88       |
| 9) Pyridine                    | 3.246  | 79   | 227635     | 73.5531  | ng    | 70       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 126196     | 74.2681  | ng    | 79       |
| 12) Benzaldehyde               | 5.530  | 77   | 106751     | 64.9366  | ng    | 82       |
| 13) Aniline                    | 5.621  | 93   | 310366     | 88.4643  | ng    | 77       |
| 14) Pentachloroethane          | 5.663  | 117  | 82376      | 79.3795  | ng    | 73       |
| 15) bis(2-Chloroethyl)ether    | 5.680  | 93   | 217728     | 77.1163  | ng    | 74       |
| 17) Phenol                     | 5.599  | 94   | 310066     | 78.8527  | ng    | 89       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 253954     | 86.3727  | ng    | 76       |
| 19) N-Decane                   | 5.754  | 57   | 198852     | 75.3733  | ng    | 75       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 275247     | 84.3908  | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 277799     | 78.6466  | ng    | 95       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 269915     | 80.2347  | ng    | 96       |
| 24) Benzyl alcohol             | 6.011  | 108  | 159907     | 82.0304  | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 253664     | 79.2957  | ng    | 78       |
| 26) 2-Methylphenol             | 6.102  | 108  | 219679     | 75.3681  | ng    | 97       |
| 27) Acetophenone               | 6.225  | 105  | 320144     | 77.0096  | ng    | 78       |
| 28) Hexachloroethane           | 6.305  | 117  | 110191     | 79.4844  | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 152933     | 72.1535  | ng    | 81       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 218815     | 74.2782  | ng    | 95       |
| 33) Nitrobenzene               | 6.364  | 77   | 250111     | 73.7098  | ng    | 78       |
| 34) Isophorone                 | 6.546  | 82   | 427931     | 72.9318  | ng    | 80       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 138081     | 76.8251  | ng    | 88       |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 248723     | 78.1994  | ng    | 94       |
| 37) Benzoic Acid               | 6.728  | 105  | 241671     | 100.9278 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 270374     | 72.3020  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 222583     | 79.2893  | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 242858     | 79.7849  | ng    | 95       |
| 41) Naphthalene                | 6.920  | 128  | 763025     | 77.8846  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 276719m    | 77.0673  | ng    |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 138513     | 85.6609  | ng    | 100      |
| 44) Caprolactam                | 7.241  | 113  | 83014      | 76.2138  | ng    | 52       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 210436     | 75.3690  | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 492469     | 73.3324  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.535  | 142  | 479441     | 73.2226  | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.535  | 142  | 978911m    | 148.2239 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 604474     | 70.4568  | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 241730     | 76.9221  | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 102788     | 71.9387  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 161166     | 85.3115  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 161442     | 78.2404  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.856  | 162  | 468215     | 76.7429  | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.135  | 156  | 395971     | 76.3278  | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 8.135  | 156  | 395971     | 76.3278  | ng    | 90       |
| 59) Diphenyl Ether             | 7.910  | 170  | 365473     | 77.9606  | ng    | 82       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 170684     | 78.1722  | ng    | 50       |
| 61) Coumarin                   | 8.124  | 146  | 184070     | 71.7957  | ng    | 60       |
| 62) Acenaphthylene             | 8.215  | 152  | 704463     | 74.1042  | ng    | 99       |
| 63) Dimethylphthalate          | 8.076  | 163  | 543573     | 77.6333  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.135  | 165  | 122178     | 76.8755  | ng    | 80       |
| 65) Acenaphthene               | 8.365  | 153  | 482318     | 74.7008  | ng    | 97       |

SampleID : CAL BNA@80PPM  
Data File: 10M71234.D  
Acq On : 10/ 8/18 10:44

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 10M 1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.290  | 138  | 135836   | 80.5338 | ng    | 70       |
| 67)  | 2,4-Dinitrophenol         | 8.381  | 184  | 75243    | 80.4706 | ng    | 45       |
| 68)  | Dibenzofuran              | 8.520  | 168  | 710405   | 81.4011 | ng    | 90       |
| 69)  | 2,4-Dinitrotoluene        | 8.498  | 165  | 181095   | 84.2644 | ng    | 62       |
| 70)  | 4-Nitrophenol             | 8.418  | 65   | 100692   | 71.7738 | ng    | 54       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.627  | 232  | 136379   | 84.7931 | ng    | 87       |
| 72)  | Fluorene                  | 8.846  | 166  | 573931   | 79.6969 | ng    | 96       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.830  | 204  | 271480   | 79.4017 | ng    | 86       |
| 74)  | Diethylphthalate          | 8.707  | 149  | 555069   | 78.4105 | ng    | 94       |
| 75)  | 4-Nitroaniline            | 8.862  | 138  | 153687   | 76.7468 | ng    | 89       |
| 76)  | Atrazine                  | 9.477  | 200  | 182029   | 83.0165 | ng    | 97       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.883  | 198  | 99533    | 82.2004 | ng    | 59       |
| 79)  | n-Nitrosodiphenylamine    | 8.948  | 169  | 489439   | 76.9761 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.990  | 77   | 623463   | 85.3191 | ng    | 81       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248  | 149646   | 77.2512 | ng    | 87       |
| 83)  | Hexachlorobenzene         | 9.391  | 284  | 156189   | 76.0155 | ng    | 76       |
| 84)  | N-Octadecane              | 9.637  | 57   | 282894   | 69.2747 | ng    | 76       |
| 85)  | Pentachlorophenol         | 9.595  | 266  | 83829    | 88.4093 | ng    | 99       |
| 86)  | Phenanthrene              | 9.830  | 178  | 847510   | 77.7406 | ng    | 100      |
| 87)  | Anthracene                | 9.889  | 178  | 865036   | 77.8166 | ng    | 100      |
| 88)  | Carbazole                 | 10.055 | 167  | 786912   | 76.5877 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 949793   | 77.7946 | ng    | 97       |
| 90)  | Fluoranthene              | 11.167 | 202  | 885688   | 78.0431 | ng    | 86       |
| 92)  | Pyrene                    | 11.435 | 202  | 907238   | 77.7803 | ng    | 80       |
| 93)  | Benzidine                 | 11.317 | 184  | 377186   | 79.1419 | ng    | 85       |
| 95)  | 4,4'-DDE                  | 11.536 | 246  | 184404   | 83.1979 | ng    | 97       |
| 96)  | 4,4'-DDD                  | 11.937 | 235  | 327307   | 84.5233 | ng    | 92       |
| 97)  | Butylbenzylphthalate      | 12.189 | 149  | 430536   | 79.0548 | ng    | 73       |
| 98)  | 4,4'-DDT                  | 12.296 | 235  | 301170   | 86.7478 | ng    | 94       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.820 | 252  | 275534   | 79.3856 | ng    | 95       |
| 100) | Benzo[a]anthracene        | 12.852 | 228  | 820855   | 76.2254 | ng    | 99       |
| 101) | Chrysene                  | 12.895 | 228  | 794907   | 77.5090 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 595258   | 78.5779 | ng    | 93       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 1002894  | 76.9683 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.072 | 252  | 871011   | 80.7495 | ng    | 92       |
| 106) | Benzo[k]fluoranthene      | 14.098 | 252  | 819230m  | 77.5101 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.435 | 252  | 820723   | 78.9814 | ng    | 91       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.869 | 276  | 838349   | 74.4316 | ng    | 85       |
| 109) | Dibenzo[a,h]anthracene    | 15.879 | 278  | 720055   | 75.6520 | ng    | 92       |
| 110) | Benzo[g,h,i]perylene      | 16.259 | 276  | 746577   | 77.1006 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





8101509 0303

SampleID : CAL BNA@120PPM  
Data File: 10M71233.D  
Acq On : 10/ 8/18 10:22

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 10M\_1000.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| -----                          |        |      |          |          |         |          |
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 48116    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 94428    | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 362591   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 229352   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 409954   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.868 | 240  | 364480   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.499 | 264  | 379631   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 342767   | 135.32   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 135.32% |          |
| 16) Phenol-d5                  | 5.588  | 99   | 463594   | 124.98   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 124.98% |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 70988    | 59.09    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 118.18% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 435665   | 58.83    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 117.66% |          |
| 80) 2,4,6-Tribromophenol       | 9.081  | 330  | 112887   | 118.23   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 118.23% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 418211   | 65.78    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 131.56% |          |
| Target Compounds               |        |      |          |          |         |          |
|                                |        |      |          |          |         | Qvalue   |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 142336   | 117.7564 | ng      | 90       |
| 9) Pyridine                    | 3.235  | 79   | 352122   | 111.0649 | ng      | 72       |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 204641   | 117.5631 | ng      | 87       |
| 12) Benzaldehyde               | 5.530  | 77   | 143249   | 85.0611  | ng      | 81       |
| 13) Aniline                    | 5.626  | 93   | 472696   | 131.5217 | ng      | 76       |
| 14) Pentachloroethane          | 5.663  | 117  | 129155   | 121.4900 | ng      | 71       |
| 15) bis(2-Chloroethyl) ether   | 5.679  | 93   | 333980   | 115.4714 | ng      | 74       |
| 17) Phenol                     | 5.599  | 94   | 452742   | 112.3919 | ng      | 92       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 382645   | 127.0397 | ng      | 77       |
| 19) N-Decane                   | 5.754  | 57   | 294768   | 109.0660 | ng      | 76       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 424908   | 127.1713 | ng      | 98       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 416799   | 117.0237 | ng      | 98       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 406245   | 119.7626 | ng      | 97       |
| 24) Benzyl alcohol             | 6.016  | 108  | 243879   | 124.0737 | ng      | 72       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 393520   | 121.9988 | ng      | 76       |
| 26) 2-Methylphenol             | 6.102  | 108  | 334413   | 113.7837 | ng      | 98       |
| 27) Acetophenone               | 6.230  | 105  | 470276   | 112.1890 | ng      | 73       |
| 28) Hexachloroethane           | 6.311  | 117  | 172411   | 123.3385 | ng      | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.225  | 70   | 227756   | 106.5673 | ng      | 82       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 318295   | 106.3414 | ng      | 100      |
| 33) Nitrobenzene               | 6.364  | 77   | 379082   | 109.4382 | ng      | 77       |
| 34) Isophorone                 | 6.546  | 82   | 657112   | 109.7049 | ng      | 83       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 221703   | 120.8327 | ng      | 87       |
| 36) 2,4-Dimethylphenol         | 6.631  | 107  | 385051   | 117.1769 | ng      | 95       |
| 37) Benzoic Acid               | 6.744  | 105  | 398243   | 148.7294 | ng      | 87       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 410259   | 107.4700 | ng      | 97       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 350515   | 122.3131 | ng      | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 359391   | 115.6589 | ng      | 95       |
| 41) Naphthalene                | 6.920  | 128  | 1153291  | 115.5174 | ng      | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 375854   | 109.8443 | ng      | 92       |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 200163   | 121.2605 | ng      | 97       |
| 44) Caprolactam                | 7.252  | 113  | 128572   | 115.6304 | ng      | 60       |
| 45) 4-Chloro-3-methylphenol    | 7.321  | 107  | 319934   | 112.2475 | ng      | 82       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 752194   | 109.7211 | ng      | 98       |
| 47) 1-Methylnaphthalene        | 7.535  | 142  | 740536   | 110.7898 | ng      | 94       |
| 48) Methylnaphthalenes (To...  | 7.535  | 142  | 1489184m | 220.8855 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 917091   | 104.7132 | ng      | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 369262   | 113.3634 | ng      | 99       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 172843   | 110.8633 | ng      | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 245166   | 125.2024 | ng      | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 260022   | 121.5746 | ng      | 95       |
| 56) 2-Chloronaphthalene        | 7.856  | 162  | 742807   | 117.4592 | ng      | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.134  | 156  | 560850   | 104.2999 | ng      | 93       |
| 58) Dimethylnaphthalenes (...) | 8.134  | 156  | 560850   | 104.2999 | ng      | 93       |
| 59) Diphenyl Ether             | 7.910  | 170  | 548288   | 112.8357 | ng      | 83       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 268877   | 118.8040 | ng      | 40       |
| 61) Coumarin                   | 8.124  | 146  | 262313   | 98.7083  | ng      | 51       |
| 62) Acenaphthylene             | 8.215  | 152  | 1062751  | 107.8535 | ng      | 99       |
| 63) Dimethylphthalate          | 8.076  | 163  | 850801   | 117.2293 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 8.140  | 165  | 175513   | 106.5424 | ng      | 74       |
| 65) Acenaphthene               | 8.370  | 153  | 752113   | 112.3811 | ng      | 95       |

SampleID : CAL BNA@120PPM  
 Data File: 10M71233.D  
 Acq On : 10/ 8/18 10:22

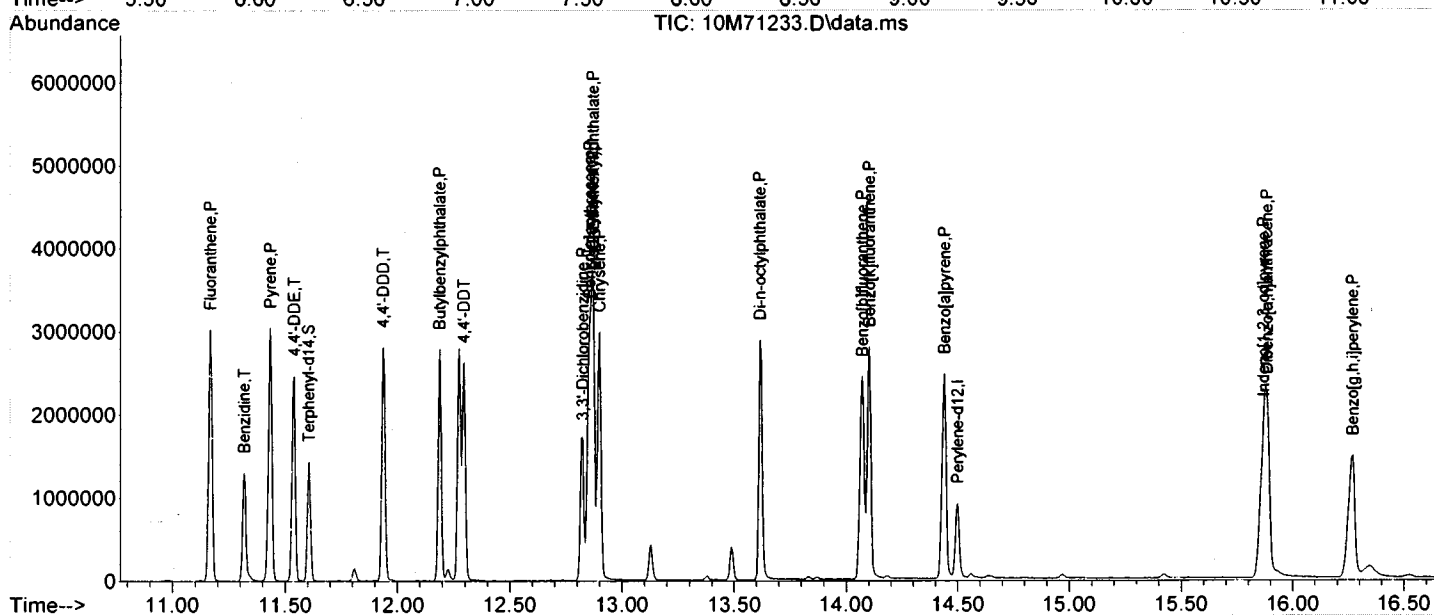
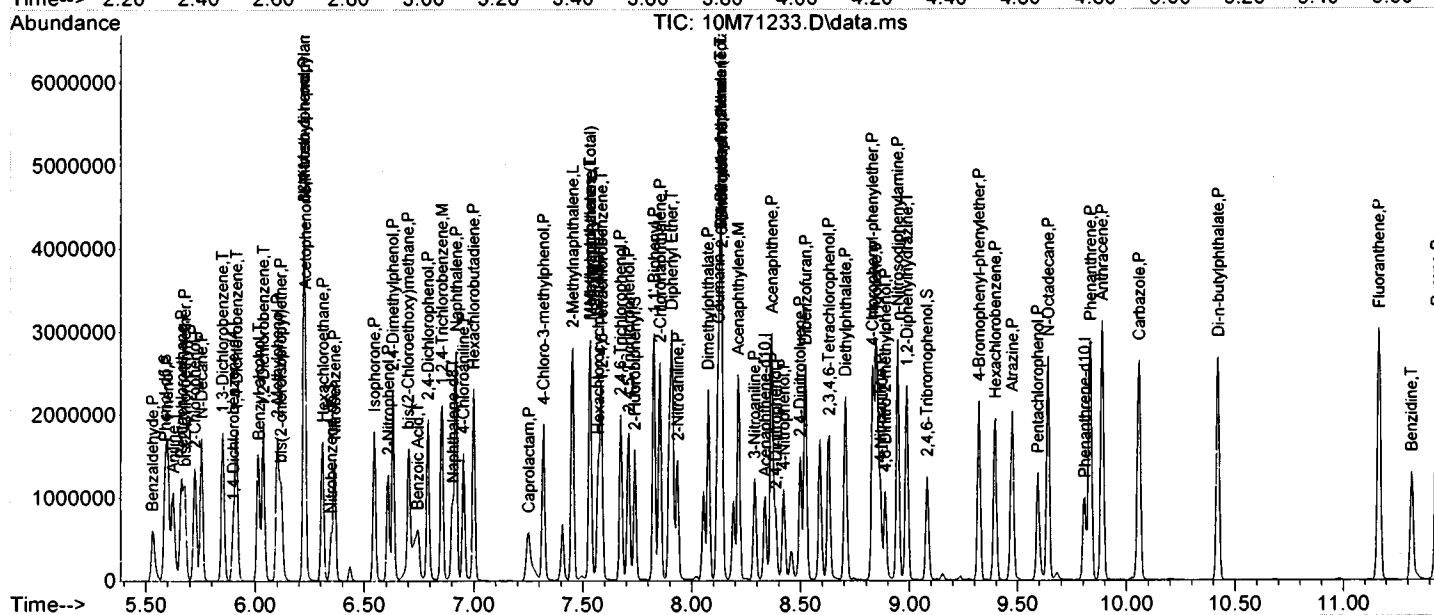
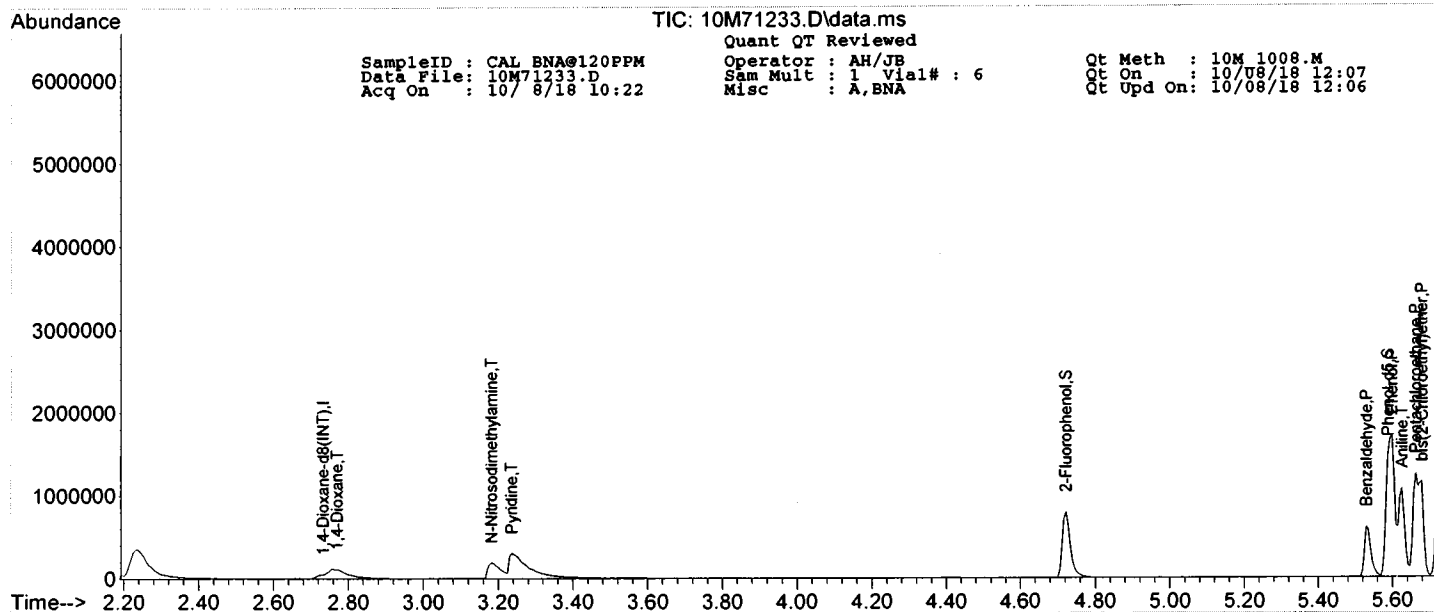
Operator : AH/JB  
 Sam Mult : 1 Vial# : 6  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QI on | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|-------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.290  | 138   | 200634   | 114.7587 | ng    | 81       |
| 67)  | 2,4-Dinitrophenol         | 8.386  | 184   | 127833   | 120.5764 | ng    | 38       |
| 68)  | Dibenzofuran              | 8.525  | 168   | 1062822  | 117.7916 | ng    | 88       |
| 69)  | 2,4-Dinitrotoluene        | 8.498  | 165   | 276784   | 124.2500 | ng    | 67       |
| 70)  | 4-Nitrophenol             | 8.423  | 65    | 164379   | 113.0409 | ng    | 48       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.632  | 232   | 217395   | 130.4009 | ng    | 85       |
| 72)  | Fluorene                  | 8.846  | 166   | 865060   | 115.8900 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.830  | 204   | 412731   | 116.4601 | ng    | 88       |
| 74)  | Diethylphthalate          | 8.707  | 149   | 842292   | 114.7910 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.867  | 138   | 245519   | 118.2841 | ng    | 88       |
| 76)  | Atrazine                  | 9.477  | 200   | 282053   | 124.1003 | ng    | 98       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.889  | 198   | 161826   | 121.5115 | ng    | 50       |
| 79)  | n-Nitrosodiphenylamine    | 8.947  | 169   | 731993   | 109.9531 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.990  | 77    | 955802   | 124.9242 | ng    | 84       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248   | 234093   | 115.4176 | ng    | 90       |
| 83)  | Hexachlorobenzene         | 9.397  | 284   | 239473   | 111.3144 | ng    | 68       |
| 84)  | N-Octadecane              | 9.643  | 57    | 435579   | 101.8735 | ng    | 72       |
| 85)  | Pentachlorophenol         | 9.595  | 266   | 142373   | 129.9434 | ng    | 98       |
| 86)  | Phenanthrene              | 9.835  | 178   | 1288540  | 112.8871 | ng    | 99       |
| 87)  | Anthracene                | 9.889  | 178   | 1333596  | 114.5791 | ng    | 100      |
| 88)  | Carbazole                 | 10.060 | 167   | 1221206  | 113.5181 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.424 | 149   | 1464988  | 115.0977 | ng    | 98       |
| 90)  | Fluoranthene              | 11.167 | 202   | 1392528  | 117.1928 | ng    | 86       |
| 92)  | Pyrene                    | 11.435 | 202   | 1432994  | 128.5181 | ng    | 80       |
| 93)  | Benzidine                 | 11.317 | 184   | 550346   | 121.5634 | ng    | 82       |
| 95)  | 4,4'-DDE                  | 11.542 | 246   | 292893   | 138.2365 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.937 | 235   | 515852   | 139.3534 | ng    | 91       |
| 97)  | Butylbenzylphthalate      | 12.189 | 149   | 666178   | 127.9618 | ng    | 74       |
| 98)  | 4,4'-DDT                  | 12.296 | 235   | 446455   | 134.5228 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.825 | 252   | 405593   | 128.8631 | ng    | 95       |
| 100) | Benzo[a]anthracene        | 12.857 | 228   | 1250163  | 121.4427 | ng    | 98       |
| 101) | Chrysene                  | 12.900 | 228   | 1215761  | 124.0097 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.873 | 149   | 906942   | 125.2409 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.617 | 149   | 1583969  | 121.2857 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.071 | 252   | 1282823  | 118.6557 | ng    | 91       |
| 106) | Benzo[k]fluoranthene      | 14.104 | 252   | 1222585  | 115.4084 | ng    | 91       |
| 107) | Benzo[a]pyrene            | 14.440 | 252   | 1242954  | 119.3408 | ng    | 90       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.869 | 276   | 1274897  | 112.9310 | ng    | 84       |
| 109) | Dibenzo[a,h]anthracene    | 15.885 | 278   | 1085281  | 113.7635 | ng    | 89       |
| 110) | Benzo[g,h,i]perylene      | 16.270 | 276   | 1135496  | 116.9970 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@160PPM  
Data File: 10M71232.D  
Acq On : 10/ 8/18 10:00

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 10M 10  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

8101509 0306

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| -----                          |        |      |          |          |         |          |
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 47686    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 94302    | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 357131   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 230365   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 414288   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.868 | 240  | 352830   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.500 | 264  | 385890   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 461786   | 183.95   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 183.95% |          |
| 16) Phenol-d5                  | 5.594  | 99   | 609780   | 165.88   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 165.88% |          |
| 32) Nitrobenzene-d5            | 6.348  | 128  | 99614    | 84.19    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 168.38% |          |
| 55) 2-Fluorobiphenyl           | 7.744  | 172  | 601763   | 80.91    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 161.82% |          |
| 80) 2,4,6-Tribromophenol       | 9.087  | 330  | 159906   | 164.05   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 164.05% |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 567560   | 92.21    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 184.42% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 185727   | 155.0399 | ng      | 88       |
| 9) Pyridine                    | 3.235  | 79   | 481555   | 153.2598 | ng      | 69       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 272853   | 158.1633 | ng      | 76       |
| 12) Benzaldehyde               | 5.535  | 77   | 170503   | 102.1574 | ng      | 81       |
| 13) Aniline                    | 5.626  | 93   | 630513   | 177.0143 | ng      | 76       |
| 14) Pentachloroethane          | 5.664  | 117  | 167241   | 158.7342 | ng      | 69       |
| 15) bis(2-Chloroethyl) ether   | 5.680  | 93   | 445267   | 155.3363 | ng      | 78       |
| 17) Phenol                     | 5.605  | 94   | 605527   | 151.6758 | ng      | 91       |
| 18) 2-Chlorophenol             | 5.728  | 128  | 517385   | 173.3229 | ng      | 73       |
| 19) N-Decane                   | 5.755  | 57   | 391951   | 146.3321 | ng      | 76       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 553412   | 167.1250 | ng      | 97       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 545810   | 153.4506 | ng      | 98       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 535830   | 158.1758 | ng      | 99       |
| 24) Benzyl alcohol             | 6.017  | 108  | 330268   | 168.2486 | ng      | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 522414   | 162.1748 | ng      | 78       |
| 26) 2-Methylphenol             | 6.102  | 108  | 442149   | 150.6417 | ng      | 94       |
| 27) Acetophenone               | 6.231  | 105  | 578710   | 138.2414 | ng      | 83       |
| 28) Hexachloroethane           | 6.311  | 117  | 229793   | 164.6077 | ng      | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.225  | 70   | 281554   | 131.9155 | ng      | 84       |
| 30) 3&4-Methylphenol           | 6.225  | 108  | 390987   | 130.0713 | ng      | 95       |
| 33) Nitrobenzene               | 6.364  | 77   | 514722   | 150.8683 | ng      | 79       |
| 34) Isophorone                 | 6.551  | 82   | 873108   | 147.9940 | ng      | 80       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 289906   | 160.4204 | ng      | 90       |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 509352   | 155.5482 | ng      | 97       |
| 37) Benzoic Acid               | 6.760  | 105  | 553836   | 193.9969 | ng      | 86       |
| 38) bis(2-Chloroethoxy)met...  | 6.707  | 93   | 537215   | 142.8784 | ng      | 96       |
| 39) 2,4-Dichlorophenol         | 6.792  | 162  | 453829   | 160.7860 | ng      | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 480454   | 156.9832 | ng      | 98       |
| 41) Naphthalene                | 6.921  | 128  | 1472515  | 149.9849 | ng      | 99       |
| 42) 4-Chloroaniline            | 6.953  | 127  | 460527m  | 149.5542 | ng      |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 267950   | 164.8082 | ng      | 96       |
| 44) Caprolactam                | 7.257  | 113  | 192628   | 175.8874 | ng      | 61       |
| 45) 4-Chloro-3-methylphenol    | 7.322  | 107  | 436710   | 155.5603 | ng      | 81       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 1004414  | 148.7520 | ng      | 99       |
| 47) 1-Methylnaphthalene        | 7.536  | 142  | 978693   | 148.6584 | ng      | 93       |
| 48) Methylnaphthalenes (To...  | 7.455  | 142  | 1973986m | 297.2708 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 1206961  | 139.9175 | ng      | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 474204   | 144.9405 | ng      | 99       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 247494   | 150.4001 | ng      | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.675  | 196  | 319910   | 162.6545 | ng      | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 352197   | 163.9473 | ng      | 97       |
| 56) 2-Chloronaphthalene        | 7.857  | 162  | 963876   | 151.7463 | ng      | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.140  | 156  | 682028   | 126.2773 | ng      | 95       |
| 58) Dimethylnaphthalenes (...) | 8.140  | 156  | 682028   | 126.2773 | ng      | 95       |
| 59) Diphenyl Ether             | 7.915  | 170  | 697667   | 142.9460 | ng      | 79       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 356956   | 157.0284 | ng      | 44       |
| 61) Coumarin                   | 8.129  | 146  | 321970   | 120.6244 | ng      | 43       |
| 62) Acenaphthylene             | 8.220  | 152  | 1460471  | 147.5644 | ng      | 99       |
| 63) Dimethylphthalate          | 8.081  | 163  | 1145042  | 157.0781 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 8.140  | 165  | 218689   | 132.1679 | ng      | 97       |
| 65) Acenaphthene               | 8.370  | 153  | 985628   | 146.6254 | ng      | 96       |

SampleID : CAL BNA@160PPM

Operator : AH/JB

Qt Meth : 10M\_1008.M

Data File: 10M71232.D

Sam Mult : 1 Vial# : 5

Qt On : 10/08/18 12:07

Acq On : 10/ 8/18 10:00

Misc : A,BNA

Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\

Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.295  | 138  | 255039   | 145.2358 | ng    | 71       |
| 67)  | 2,4-Dinitrophenol         | 8.386  | 184  | 187532   | 161.8247 | ng    | 41       |
| 68)  | Dibenzofuran              | 8.525  | 168  | 1396003  | 154.4360 | ng    | 90       |
| 69)  | 2,4-Dinitrotoluene        | 8.504  | 165  | 380955   | 170.2610 | ng    | 65       |
| 70)  | 4-Nitrophenol             | 8.429  | 65   | 217746   | 149.0821 | ng    | 50       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.632  | 232  | 294817   | 176.0636 | ng    | 84       |
| 72)  | Fluorene                  | 8.851  | 166  | 1150322  | 153.4283 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.835  | 204  | 550085   | 154.5347 | ng    | 85       |
| 74)  | Diethylphthalate          | 8.707  | 149  | 1133195  | 153.7574 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.873  | 138  | 333699   | 160.0597 | ng    | 88       |
| 76)  | Atrazine                  | 9.483  | 200  | 394500   | 172.8124 | ng    | 97       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.894  | 198  | 219844   | 156.6276 | ng    | 52       |
| 79)  | n-Nitrosodiphenylamine    | 8.953  | 169  | 990340   | 147.2034 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.990  | 77   | 1314004  | 169.9449 | ng    | 85       |
| 82)  | 4-Bromophenyl-phenylether | 9.322  | 248  | 316564   | 154.4464 | ng    | 94       |
| 83)  | Hexachlorobenzene         | 9.397  | 284  | 315351   | 145.0514 | ng    | 75       |
| 84)  | N-Octadecane              | 9.643  | 57   | 559114   | 129.3980 | ng    | 71       |
| 85)  | Pentachlorophenol         | 9.600  | 266  | 195643   | 164.0473 | ng    | 97       |
| 86)  | Phenanthrene              | 9.836  | 178  | 1711814  | 148.4006 | ng    | 100      |
| 87)  | Anthracene                | 9.894  | 178  | 1777655  | 151.1337 | ng    | 99       |
| 88)  | Carbazole                 | 10.060 | 167  | 1617877  | 148.8176 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.424 | 149  | 1989690  | 155.4103 | ng    | 99       |
| 90)  | Fluoranthene              | 11.173 | 202  | 1841109  | 153.3237 | ng    | 83       |
| 92)  | Pyrene                    | 11.440 | 202  | 1885649  | 174.6984 | ng    | 79       |
| 93)  | Benzidine                 | 11.322 | 184  | 742465   | 170.6672 | ng    | 80       |
| 95)  | 4,4'-DDE                  | 11.542 | 246  | 390880   | 190.5748 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.943 | 235  | 670002   | 186.9721 | ng    | 90       |
| 97)  | Butylbenzylphthalate      | 12.194 | 149  | 893278   | 177.2495 | ng    | 72       |
| 98)  | 4,4'-DDT                  | 12.301 | 235  | 615678   | 191.6373 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.825 | 252  | 507042   | 175.3294 | ng    | 96       |
| 100) | Benzo[a]anthracene        | 12.858 | 228  | 1675702  | 168.1550 | ng    | 98       |
| 101) | Chrysene                  | 12.906 | 228  | 1617265  | 170.4107 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.874 | 149  | 1202749  | 171.5733 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.622 | 149  | 2124756  | 160.0553 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.077 | 252  | 1671543  | 152.1030 | ng    | 91       |
| 106) | Benzo[k]fluoranthene      | 14.109 | 252  | 1717131  | 159.4629 | ng    | 90       |
| 107) | Benzo[a]pyrene            | 14.446 | 252  | 1650186  | 155.8709 | ng    | 91       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.874 | 276  | 1734400  | 151.1422 | ng    | 83       |
| 109) | Dibenzo[a,h]anthracene    | 15.896 | 278  | 1446746  | 149.1939 | ng    | 86       |
| 110) | Benzo[g,h,i]perylene      | 16.275 | 276  | 1519870  | 154.0614 | ng    | 95       |

(#)= qualifier out of range (m) = manual integration (+) = signals summed



8101509 0309

SampleID : CAL BNA@196PPM  
Data File: 10M71231.D  
Acq On : 10/ 8/18 09:38

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

Qt Meth : 10M 1000.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| -----                          |        |      |          |          |         |          |
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 46558    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 95237    | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.904  | 136  | 358254   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.338  | 164  | 237684   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.809  | 188  | 438766   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.874 | 240  | 339080   | 40.00    | ng      | 0.01     |
| 103) Perylene-d12              | 14.500 | 264  | 408006   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 556812   | 227.18   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 227.18% |          |
| 16) Phenol-d5                  | 5.594  | 99   | 732223   | 204.01   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 204.01% |          |
| 32) Nitrobenzene-d5            | 6.354  | 128  | 120762   | 101.74   | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 203.48% |          |
| 55) 2-Fluorobiphenyl           | 7.744  | 172  | 714699   | 93.13    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 186.26% |          |
| 80) 2,4,6-Tribromophenol       | 9.087  | 330  | 192882   | 185.95   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 185.95% |          |
| 94) Terphenyl-d14              | 11.611 | 244  | 738491   | 124.85   | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 249.70% |          |
| Target Compounds               |        |      |          |          |         |          |
|                                |        |      |          |          |         | Qvalue   |
| 8) 1,4-Dioxane                 | 2.759  | 88   | 221767   | 189.6103 | ng      | 86       |
| 9) Pyridine                    | 3.230  | 79   | 590920   | 192.6228 | ng      | 70       |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 340569   | 202.1989 | ng      | 86       |
| 12) Benzaldehyde               | 5.530  | 77   | 198458   | 121.7876 | ng      | 76       |
| 13) Aniline                    | 5.626  | 93   | 760890   | 218.7926 | ng      | 76       |
| 14) Pentachloroethane          | 5.664  | 117  | 202373   | 196.7329 | ng      | 70       |
| 15) bis(2-Chloroethyl)ether    | 5.685  | 93   | 523855   | 187.1803 | ng      | 75       |
| 17) Phenol                     | 5.610  | 94   | 741355   | 190.1979 | ng      | 91       |
| 18) 2-Chlorophenol             | 5.728  | 128  | 634062   | 217.5556 | ng      | 73       |
| 19) N-Decane                   | 5.755  | 57   | 459451   | 175.6886 | ng      | 77       |
| 20) 1,3-Dichlorobenzene        | 5.851  | 146  | 664218   | 205.4471 | ng      | 96       |
| 22) 1,4-Dichlorobenzene        | 5.915  | 146  | 676465   | 188.3162 | ng      | 97       |
| 23) 1,2-Dichlorobenzene        | 6.038  | 146  | 645170   | 188.5829 | ng      | 97       |
| 24) Benzyl alcohol             | 6.017  | 108  | 408228   | 205.9222 | ng      | 75       |
| 25) bis(2-chloroisopropyl)...  | 6.118  | 45   | 616647   | 189.5485 | ng      | 77       |
| 26) 2-Methylphenol             | 6.102  | 108  | 533772   | 180.0726 | ng      | 96       |
| 27) Acetophenone               | 6.236  | 105  | 649437   | 153.6135 | ng      | 75       |
| 28) Hexachloroethane           | 6.311  | 117  | 276470   | 196.0996 | ng      | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.231  | 70   | 320717   | 148.7891 | ng      | 91       |
| 30) 3&4-Methylphenol           | 6.231  | 108  | 428108   | 140.6713 | ng      | 99       |
| 33) Nitrobenzene               | 6.370  | 77   | 634148   | 185.2902 | ng      | 75       |
| 34) Isophorone                 | 6.551  | 82   | 1080992  | 182.6566 | ng      | 85       |
| 35) 2-Nitrophenol              | 6.610  | 139  | 355628   | 196.1711 | ng      | 93       |
| 36) 2,4-Dimethylphenol         | 6.637  | 107  | 620465   | 187.1020 | ng      | 96       |
| 37) Benzoic Acid               | 6.771  | 105  | 713779   | 233.6436 | ng      | 85       |
| 38) bis(2-Chloroethoxy)met...  | 6.707  | 93   | 644756   | 170.9426 | ng      | 96       |
| 39) 2,4-Dichlorophenol         | 6.798  | 162  | 543790   | 192.0541 | ng      | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.856  | 180  | 588069   | 191.5430 | ng      | 98       |
| 41) Naphthalene                | 6.921  | 128  | 1759855  | 178.9293 | ng      | 100      |
| 42) 4-Chloroaniline            | 6.958  | 127  | 522350m  | 184.3630 | ng      |          |
| 43) Hexachlorobutadiene        | 7.001  | 225  | 326215   | 200.0163 | ng      | 95       |
| 44) Caprolactam                | 7.274  | 113  | 244421   | 222.4796 | ng      | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.327  | 107  | 543122   | 192.8589 | ng      | 82       |
| 46) 2-Methylnaphthalene        | 7.455  | 142  | 1170458  | 172.7994 | ng      | 99       |
| 47) 1-Methylnaphthalene        | 7.536  | 142  | 1141341  | 172.8204 | ng      | 93       |
| 48) Methylnaphthalenes (To...  | 7.455  | 142  | 2297970m | 344.9762 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.830  | 154  | 1465633  | 169.3715 | ng      | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.589  | 216  | 575316   | 170.4305 | ng      | 97       |
| 52) Hexachlorocyclopentadiene  | 7.573  | 237  | 292412   | 168.4937 | ng      | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.680  | 196  | 385051   | 189.7462 | ng      | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.712  | 196  | 414932m  | 187.2027 | ng      |          |
| 56) 2-Chloronaphthalene        | 7.857  | 162  | 1150433  | 175.5395 | ng      | 94       |
| 57) 1,4-Dimethylnaphthalene    | 8.140  | 156  | 772001   | 138.5344 | ng      | 97       |
| 58) Dimethylnaphthalenes (...) | 8.140  | 156  | 772001   | 138.5344 | ng      | 97       |
| 59) Diphenyl Ether             | 7.915  | 170  | 791516   | 157.1810 | ng      | 83       |
| 60) 2-Nitroaniline             | 7.937  | 65   | 445404   | 189.9040 | ng      | 52       |
| 61) Coumarin                   | 8.135  | 146  | 355115   | 128.9452 | ng      | 33       |
| 62) Acenaphthylene             | 8.220  | 152  | 1748257  | 171.2027 | ng      | 99       |
| 63) Dimethylphthalate          | 8.087  | 163  | 1431435  | 190.3191 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 8.145  | 165  | 261204   | 153.0014 | ng      | 79       |
| 65) Acenaphthene               | 8.370  | 153  | 1191791  | 171.8354 | ng      | 96       |



SampleID : CAL BNA@196PPM  
 Data File: 10M71231.D  
 Acq On : 10/ 8/18 09:38

Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.295  | 138  | 307749   | 169.8558 | ng    | 75       |
| 67)  | 2,4-Dinitrophenol         | 8.391  | 184  | 240705   | 190.5498 | ng    | 35       |
| 68)  | Dibenzofuran              | 8.525  | 168  | 1743000  | 187.3208 | ng    | 91       |
| 69)  | 2,4-Dinitrotoluene        | 8.509  | 165  | 468982   | 203.1488 | ng    | 63       |
| 70)  | 4-Nitrophenol             | 8.429  | 65   | 283725   | 188.2736 | ng    | 61       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.637  | 232  | 367564   | 212.7486 | ng    | 87       |
| 72)  | Fluorene                  | 8.851  | 166  | 1402376  | 181.2871 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.835  | 204  | 685935   | 186.7651 | ng    | 90       |
| 74)  | Diethylphthalate          | 8.712  | 149  | 1421066  | 186.8797 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.878  | 138  | 426465   | 198.2563 | ng    | 88       |
| 76)  | Atrazine                  | 9.488  | 200  | 491274   | 208.5779 | ng    | 98       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.900  | 198  | 286960   | 186.5085 | ng    | 60       |
| 79)  | n-Nitrosodiphenylamine    | 8.953  | 169  | 1231051  | 172.7742 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.990  | 77   | 1642597  | 200.5912 | ng    | 86       |
| 82)  | 4-Bromophenyl-phenylether | 9.327  | 248  | 391878   | 180.5246 | ng    | 90       |
| 83)  | Hexachlorobenzene         | 9.397  | 284  | 399721   | 173.6018 | ng    | 81       |
| 84)  | N-Octadecane              | 9.643  | 57   | 675625   | 147.6394 | ng    | 74       |
| 85)  | Pentachlorophenol         | 9.600  | 266  | 256888   | 192.0823 | ng    | 98       |
| 86)  | Phenanthrene              | 9.841  | 178  | 2086934  | 170.8273 | ng    | 99       |
| 87)  | Anthracene                | 9.894  | 178  | 2190228  | 175.8218 | ng    | 99       |
| 88)  | Carbazole                 | 10.066 | 167  | 2027536  | 176.0949 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.424 | 149  | 2409706  | 178.1880 | ng    | 98       |
| 90)  | Fluoranthene              | 11.173 | 202  | 2289404  | 180.0203 | ng    | 83       |
| 92)  | Pyrene                    | 11.440 | 202  | 2354962  | 227.0259 | ng    | 80       |
| 93)  | Benizidine                | 11.322 | 184  | 906983   | 218.5126 | ng    | 83       |
| 95)  | 4,4'-DDE                  | 11.542 | 246  | 482070   | 244.5656 | ng    | 94       |
| 96)  | 4,4'-DDD                  | 11.943 | 235  | 845933   | 245.6405 | ng    | 89       |
| 97)  | Butylbenzylphthalate      | 12.194 | 149  | 1149970  | 237.4368 | ng    | 76       |
| 98)  | 4,4'-DDT                  | 12.301 | 235  | 772245   | 250.1179 | ng    | 91       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.825 | 252  | 592165   | 226.3971 | ng    | 96       |
| 100) | Benzo[a]anthracene        | 12.863 | 228  | 1996289  | 208.4490 | ng    | 99       |
| 101) | Chrysene                  | 12.906 | 228  | 2052808  | 225.0750 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.874 | 149  | 1439783  | 213.7151 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.622 | 149  | 2665071  | 189.8746 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.077 | 252  | 2157906m | 185.7161 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 14.109 | 252  | 1972412m | 173.2411 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.446 | 252  | 2056194  | 183.6933 | ng    | 90       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.879 | 276  | 2152490  | 177.4085 | ng    | 82       |
| 109) | Dibenzo[a,h]anthracene    | 15.901 | 278  | 1780392  | 173.6486 | ng    | 86       |
| 110) | Benzo[g,h,i]perylene      | 16.281 | 276  | 1998793  | 191.6250 | ng    | 93       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@.5PPM  
Data File: 10M71236.D  
Acq On : 10/ 8/18 11:28

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/08/18 12:07  
Qt Upd On: 10/08/18 12:06

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |        |
|--------------------------------|--------|------|----------|--------|-------|----------|--------|
| Internal Standards             |        |      |          |        |       |          |        |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 45678    | 40.00  | ng    | 0.00     |        |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 87007    | 40.00  | ng    | 0.00     |        |
| 31) Naphthalene-d8             | 6.899  | 136  | 329675   | 40.00  | ng    | 0.00     |        |
| 50) Acenaphthene-d10           | 8.332  | 164  | 208232   | 40.00  | ng    | 0.00     |        |
| 77) Phenanthrene-d10           | 9.803  | 188  | 382719   | 40.00  | ng    | 0.00     |        |
| 91) Chrysene-d12               | 12.863 | 240  | 376330   | 40.00  | ng    | 0.00     |        |
| 103) Perylene-d12              | 14.494 | 264  | 356360   | 40.00  | ng    | 0.00     |        |
| System Monitoring Compounds    |        |      |          |        |       |          |        |
| 11) 2-Fluorophenol             | 0.000  | 112  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 16) Phenol-d5                  | 0.000  | 99   | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 32) Nitrobenzene-d5            | 0.000  | 128  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| 55) 2-Fluorobiphenyl           | 0.000  | 172  | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| 80) 2,4,6-Tribromophenol       | 0.000  | 330  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 94) Terphenyl-d14              | 0.000  | 244  | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| Target Compounds               |        |      |          |        |       |          |        |
| 8) 1,4-Dioxane                 | 2.775  | 88   | 627m     | 0.5464 | ng    |          | Qvalue |
| 9) Pyridine                    | 0.000  |      | 0        | N.D.   |       |          |        |
| 10) N-Nitrosodimethylamine     | 0.000  |      | 0        | N.D.   |       |          |        |
| 12) Benzaldehyde               | 0.000  |      | 0        | N.D.   |       |          |        |
| 13) Aniline                    | 5.626  | 93   | 927      | 0.2717 | ng    | 58       |        |
| 14) Pentachloroethane          | 0.000  |      | 0        | N.D. d |       |          |        |
| 15) bis(2-Chloroethyl)ether    | 5.680  | 93   | 1626     | 0.5922 | ng    | 71       |        |
| 17) Phenol                     | 0.000  |      | 0        | N.D. d |       |          |        |
| 18) 2-Chlorophenol             | 0.000  |      | 0        | N.D. d |       |          |        |
| 19) N-Decane                   | 0.000  |      | 0        | N.D. d |       |          |        |
| 20) 1,3-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 22) 1,4-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 23) 1,2-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 24) Benzyl alcohol             | 0.000  |      | 0        | N.D. d |       |          |        |
| 25) bis(2-chloroisopropyl)...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 26) 2-Methylphenol             | 6.102  | 108  | 1159     | 0.4280 | ng    | 99       |        |
| 27) Acetophenone               | 0.000  |      | 0        | N.D. d |       |          |        |
| 28) Hexachloroethane           | 0.000  |      | 0        | N.D. d |       |          |        |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 755m     | 0.3834 | ng    |          |        |
| 30) 3&4-Methylphenol           | 6.230  | 108  | 1201     | 0.4467 | ng    | 67       |        |
| 33) Nitrobenzene               | 0.000  |      | 0        | N.D. d |       |          |        |
| 34) Isophorone                 | 0.000  |      | 0        | N.D. d |       |          |        |
| 35) 2-Nitrophenol              | 0.000  |      | 0        | N.D. d |       |          |        |
| 36) 2,4-Dimethylphenol         | 6.632  | 107  | 1459     | 0.5064 | ng    | 90       |        |
| 37) Benzoic Acid               | 0.000  |      | 0        | N.D. d |       |          |        |
| 38) bis(2-Chloroethoxy)met...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 39) 2,4-Dichlorophenol         | 6.797  | 162  | 1281m    | 0.4916 | ng    |          |        |
| 40) 1,2,4-Trichlorobenzene     | 0.000  |      | 0        | N.D. d |       |          |        |
| 41) Naphthalene                | 6.915  | 128  | 5210     | 0.5709 | ng    | 83       |        |
| 42) 4-Chloroaniline            | 6.958  | 127  | 1334     | 0.3464 | ng    | 82       |        |
| 43) Hexachlorobutadiene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 44) Caprolactam                | 0.000  |      | 0        | N.D.   |       |          |        |
| 45) 4-Chloro-3-methylphenol    | 0.000  |      | 0        | N.D. d |       |          |        |
| 46) 2-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 47) 1-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 48) Methylnaphthalenes (To...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 49) 1,1'-Biphenyl              | 0.000  |      | 0        | N.D. d |       |          |        |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 52) Hexachlorocyclopentadiene  | 0.000  |      | 0        | N.D.   |       |          |        |
| 53) 2,4,6-Trichlorophenol      | 0.000  |      | 0        | N.D. d |       |          |        |
| 54) 2,4,5-Trichlorophenol      | 0.000  |      | 0        | N.D. d |       |          |        |
| 56) 2-Chloronaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 57) 1,4-Dimethylnaphthalene    | 0.000  |      | 0        | N.D. d |       |          |        |
| 58) Dimethylnaphthalenes (...) | 0.000  |      | 0        | N.D. d |       |          |        |
| 59) Diphenyl Ether             | 0.000  |      | 0        | N.D. d |       |          |        |
| 60) 2-Nitroaniline             | 0.000  |      | 0        | N.D. d |       |          |        |
| 61) Coumarin                   | 0.000  |      | 0        | N.D. d |       |          |        |
| 62) Acenaphthylene             | 0.000  |      | 0        | N.D. d |       |          |        |
| 63) Dimethylphthalate          | 0.000  |      | 0        | N.D. d |       |          |        |
| 64) 2,6-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |        |
| 65) Acenaphthene               | 0.000  |      | 0        | N.D. d |       |          |        |

SampleID : CAL BNA@.5PPM  
 Data File: 10M71236.D  
 Acq On : 10/ 8/18 11:28

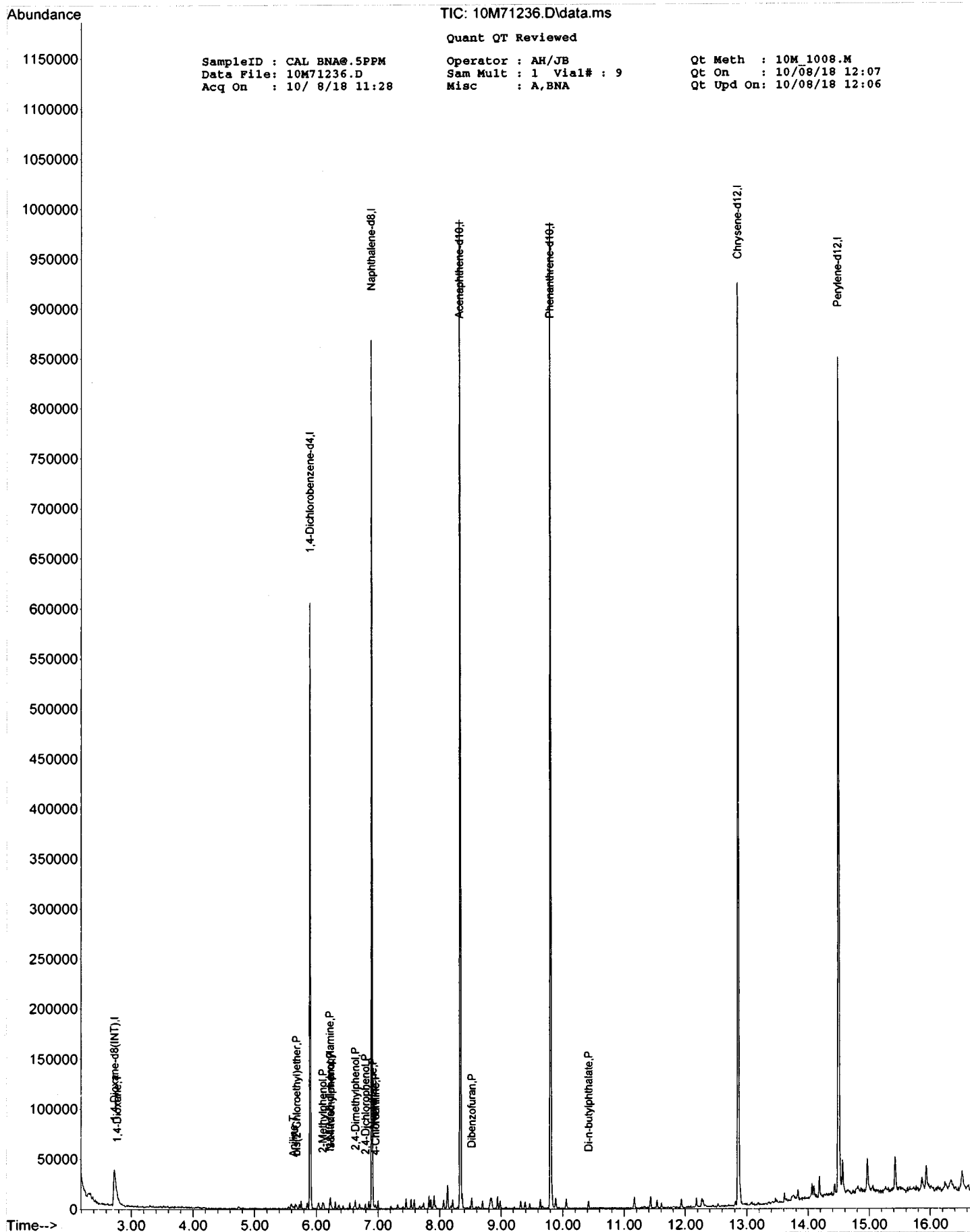
Operator : AH/JB  
 Sam Mult : 1 Vial# : 9  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/08/18 12:07  
 Qt Upd On: 10/08/18 12:06

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |      | 0        | N.D.   |       |          |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.520  | 168  | 4691     | 0.5679 | ng    | 73       |
| 69) 2,4-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |
| 70) 4-Nitrophenol              | 0.000  |      | 0        | N.D. d |       |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |      | 0        | N.D. d |       |          |
| 72) Fluorene                   | 0.000  |      | 0        | N.D. d |       |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |      | 0        | N.D. d |       |          |
| 74) Diethylphthalate           | 0.000  |      | 0        | N.D. d |       |          |
| 75) 4-Nitroaniline             | 0.000  |      | 0        | N.D. d |       |          |
| 76) Atrazine                   | 0.000  |      | 0        | N.D. d |       |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |      | 0        | N.D. d |       |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |      | 0        | N.D. d |       |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |      | 0        | N.D. d |       |          |
| 83) Hexachlorobenzene          | 0.000  |      | 0        | N.D. d |       |          |
| 84) N-Octadecane               | 0.000  |      | 0        | N.D. d |       |          |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 86) Phenanthrene               | 0.000  |      | 0        | N.D. d |       |          |
| 87) Anthracene                 | 0.000  |      | 0        | N.D. d |       |          |
| 88) Carbazole                  | 0.000  |      | 0        | N.D. d |       |          |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 4791     | 0.3979 | ng    | 95       |
| 90) Fluoranthene               | 0.000  |      | 0        | N.D. d |       |          |
| 92) Pyrene                     | 0.000  |      | 0        | N.D. d |       |          |
| 93) Benzidine                  | 0.000  |      | 0        | N.D. d |       |          |
| 95) 4,4'-DDE                   | 0.000  |      | 0        | N.D. d |       |          |
| 96) 4,4'-DDD                   | 0.000  |      | 0        | N.D. d |       |          |
| 97) Butylbenzylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 98) 4,4'-DDT                   | 0.000  |      | 0        | N.D. d |       |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |      | 0        | N.D. d |       |          |
| 100) Benzo[a]anthracene        | 0.000  |      | 0        | N.D. d |       |          |
| 101) Chrysene                  | 0.000  |      | 0        | N.D. d |       |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |      | 0        | N.D. d |       |          |
| 104) Di-n-octylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 105) Benzo[b]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 106) Benzo[k]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 107) Benzo[a]pyrene            | 0.000  |      | 0        | N.D. d |       |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |      | 0        | N.D. d |       |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |      | 0        | N.D. d |       |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |      | 0        | N.D. d |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



| Level #                 | Data File  | Cal Identifier | Analysis Date/Time |        |        |        |        |        |        |        |        | Level # | Data File  | Cal Identifier | Analysis Date/Time |      |       |       |       |       |       |       |       |       |       |      |
|-------------------------|------------|----------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|------------|----------------|--------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|                         |            |                | RF1                | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9    |         |            |                | AvgRt              | RT   | Cor1  | Cor2  | %Rsd  | Lv1   | Lv2   | Lv3   | Lv4   | Lv5   | Lv6   | Lv7  |
| 1                       | 5M105695.D | CAL BNA@50PPM  |                    |        |        |        |        |        |        |        |        |         |            |                |                    |      |       |       |       |       |       |       |       |       |       |      |
| 3                       | 5M105687.D | CAL BNA@10PPM  |                    |        |        |        |        |        |        |        |        |         |            |                |                    |      |       |       |       |       |       |       |       |       |       |      |
| 5                       | 5M105692.D | CAL BNA@80PPM  |                    |        |        |        |        |        |        |        |        |         |            |                |                    |      |       |       |       |       |       |       |       |       |       |      |
| 7                       | 5M105690.D | CAL BNA@160PPM |                    |        |        |        |        |        |        |        |        |         |            |                |                    |      |       |       |       |       |       |       |       |       |       |      |
| 9                       | 5M105694.D | CAL BNA@5PPM   |                    |        |        |        |        |        |        |        |        |         |            |                |                    |      |       |       |       |       |       |       |       |       |       |      |
| Compound                | Col        | Mt             | Fit                | RF1    | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9     | AvgRt      | RT             | Cor1               | Cor2 | %Rsd  | Lv1   | Lv2   | Lv3   | Lv4   | Lv5   | Lv6   | Lv7   | Lv8   | Lv9  |
| 1,4-Dioxane             | 1          | 0              | Qua                | 1.0076 | 0.9828 | 0.8133 | 1.0490 | 1.0207 | 1.0417 | 1.0630 | 1.0633 | 0.7700  | 0.979      | 2.53           | 1.00               | 1.00 | 11    | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Pyridine                | 1          | 0              | Avg                | 2.5767 | 2.1433 | 1.7254 | 2.5505 | 2.6914 | 2.7904 | 2.8987 | 2.8662 | ----    | 2.533.00   | 0.999          | 0.999              | 16   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| N-Nitrosodimethylamin   | 1          | 0              | Avg                | 1.4347 | 1.2012 | 1.0362 | 1.4300 | 1.5358 | 1.6079 | 1.6445 | 1.6350 | ----    | 1.442.94   | 0.999          | 1.00               | 15   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2-Fluorophenol          | 1          | 0              | Avg                | 2.0556 | 1.7792 | 1.3657 | 1.9432 | 2.2156 | 2.4344 | 2.3971 | 2.4211 | ----    | 2.084.54   | 0.999          | 0.999              | 18   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Benzaldehyde            | 1          | 0              | Avg                | 1.2535 | 1.1109 | 1.2867 | 1.6801 | 1.1410 | 1.0573 | 0.9454 | ----   | ----    | 1.215.37   | 0.974          | 0.995              | 20   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Aniline                 | 1          | 0              | Qua                | 3.2739 | 2.0413 | 2.0805 | 3.2300 | 3.3463 | 3.6427 | 3.5239 | 3.5852 | 1.2862  | 2.895.46   | 0.999          | 0.999              | 30   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Pentachloroethane       | 1          | 0              | Avg                | 0.7722 | 0.8188 | 0.6145 | 0.7567 | 0.8097 | 0.8712 | 0.8754 | 0.8684 | ----    | 0.7985.50  | 0.999          | 0.999              | 11   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| bis(2-Chloroethyl)ether | 1          | 0              | Avg                | 2.3781 | 2.7620 | 2.0348 | 2.3736 | 2.4695 | 2.6693 | 2.5931 | 2.6819 | 2.6113  | 2.515.52   | 0.998          | 0.999              | 8.9  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Phenol-d5               | 1          | 0              | Avg                | 3.1966 | 2.9270 | 2.5366 | 3.1625 | 3.2801 | 3.5009 | 3.4742 | 3.5408 | ----    | 3.205.43   | 0.999          | 1.00               | 11   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Phenol                  | 1          | 0              | Qua                | 3.3479 | 3.2539 | 2.8109 | 3.4708 | 3.4473 | 3.5696 | 3.3947 | 3.8082 | ----    | 3.395.44   | 0.997          | 0.998              | 8.4  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2-Chlorophenol          | 1          | 0              | Avg                | 2.3531 | 2.2593 | 1.8773 | 2.2655 | 2.4421 | 2.6426 | 2.6008 | 2.6775 | ----    | 2.395.56   | 0.997          | 0.999              | 11   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| N-Decane                | 1          | 0              | Avg                | 2.6985 | 2.8142 | 2.2350 | 2.6857 | 2.7908 | 2.9501 | 2.8798 | 2.8956 | ----    | 2.745.60   | 0.999          | 0.999              | 8.2  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 1,3-Dichlorobenzene     | 1          | 0              | Avg                | 2.6304 | 2.8562 | 2.2130 | 2.5581 | 2.7061 | 2.8379 | 2.8368 | 2.8234 | ----    | 2.685.69   | 1.00           | 1.00               | 8.2  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 1,4-Dichlorobenzene     | 1          | 0              | Avg                | 1.4709 | 1.6685 | 1.2313 | 1.4393 | 1.5054 | 1.5603 | 1.5291 | 1.5510 | ----    | 1.495.75   | 1.00           | 1.00               | 8.5  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 1,2-Dichlorobenzene     | 1          | 0              | Avg                | 1.3739 | 1.5333 | 1.1426 | 1.3269 | 1.4089 | 1.4533 | 1.4316 | 1.4450 | ----    | 1.395.88   | 1.00           | 1.00               | 8.4  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Benzyl alcohol          | 1          | 0              | Avg                | 0.8420 | 0.6203 | 0.5700 | 0.7968 | 0.9007 | 0.9382 | 0.9411 | 0.9402 | ----    | 0.8195.86  | 1.00           | 1.00               | 18   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| bis(2-chloroisopropyl)e | 1          | 0              | Avg                | 1.8398 | 2.0717 | 1.6047 | 1.7952 | 1.8886 | 1.9659 | 1.9385 | 1.9849 | ----    | 1.895.97   | 0.999          | 1.00               | 7.6  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2-Methylphenol          | 1          | 0              | Avg                | 1.2021 | 1.2377 | 0.9700 | 1.1674 | 1.2489 | 1.3029 | 1.2884 | 1.2988 | 1.0936  | 1.205.95   | 1.00           | 1.00               | 9.2  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Acetophenone            | 1          | 0              | Avg                | 1.8869 | 1.8584 | 1.4882 | 1.8173 | 1.8681 | 1.7831 | 1.6783 | 1.6253 | ----    | 1.756.07   | 0.996          | 0.999              | 8.1  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Hexachloroethane        | 1          | 0              | Avg                | 0.5542 | 0.5694 | 0.4472 | 0.5335 | 0.5616 | 0.5939 | 0.5846 | 0.5976 | ----    | 0.5556.15  | 0.999          | 1.00               | 8.8  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| N-Nitroso-di-n-propyla  | 1          | 0              | Qua                | 0.9349 | 0.8620 | 0.6635 | 0.8964 | 0.9515 | 0.9097 | 0.8574 | 0.8374 | 0.7016  | 0.8466.07  | 0.996          | 1.00               | 12   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 3,8,4-Methylphenol      | 1          | 0              | Qua                | 1.2993 | 1.1885 | 1.0292 | 1.2565 | 1.2935 | 1.2335 | 1.1449 | 1.1095 | 0.6817  | 1.1466.07  | 0.995          | 1.00               | 17   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Nitrobenzene-d5         | 1          | 0              | Avg                | 0.1151 | 0.1060 | 0.0872 | 0.1127 | 0.1255 | 0.1322 | 0.1302 | 0.1352 | ----    | 0.11866.20 | 0.997          | 0.999              | 14   | 25.00 | 1.00  | 5.00  | 10.00 | 40.00 | 60.00 | 80.00 | 98.00 | 0.50  |      |
| Nitrobenzene            | 1          | 0              | Avg                | 0.3628 | 0.3667 | 0.2846 | 0.3601 | 0.3804 | 0.3963 | 0.3928 | 0.4072 | ----    | 0.36966.21 | 0.999          | 1.00               | 10   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Isophorone              | 1          | 0              | Avg                | 0.6446 | 0.5827 | 0.4715 | 0.6261 | 0.6752 | 0.7011 | 0.6897 | 0.7177 | ----    | 0.63966.39 | 0.999          | 1.00               | 13   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2-Nitrophenol           | 1          | 0              | Qua                | 0.1722 | 0.1197 | 0.1152 | 0.1660 | 0.1933 | 0.2007 | 0.2047 | 0.2065 | ----    | 0.17266.46 | 0.996          | 0.998              | 21   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2,4-Dimethylphenol      | 1          | 0              | Qua                | 0.3511 | 0.3255 | 0.2687 | 0.3320 | 0.3737 | 0.3810 | 0.3767 | 0.3884 | 0.2437  | 0.33866.48 | 0.999          | 1.00               | 15   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Benzoic Acid            | 1          | 0              | Qua                | 0.1955 | -----  | 0.0256 | 0.1057 | 0.2985 | 0.3593 | 0.3767 | 0.3850 | ----    | 0.25066.59 | 0.986          | 0.995              | 57   | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| bis(2-Chloroethoxy)me   | 1          | 0              | Avg                | 0.4156 | 0.4112 | 0.3228 | 0.4022 | 0.4337 | 0.4386 | 0.4414 | 0.4589 | ----    | 0.41666.56 | 0.999          | 1.00               | 10   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2,4-Dichlorophenol      | 1          | 0              | Qua                | 0.2800 | 0.2257 | 0.1973 | 0.2718 | 0.2991 | 0.3123 | 0.3104 | 0.3062 | 0.1410  | 0.26066.64 | 0.997          | 0.998              | 23   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 1,2,4-Trichlorobenzene  | 1          | 0              | Avg                | 0.3010 | 0.3499 | 0.2498 | 0.2872 | 0.3302 | 0.3306 | 0.3242 | 0.3268 | ----    | 0.31166.70 | 1.00           | 1.00               | 10   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Napthalene              | 1          | 0              | Avg                | 1.0468 | 1.1945 | 0.8684 | 1.0368 | 1.1072 | 1.0951 | 1.0600 | 1.0716 | 1.1459  | 1.0766.77  | 0.999          | 1.00               | 8.5  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 4-Chloroaniline         | 1          | 0              | Qua                | 0.3884 | 0.2899 | 0.2340 | 0.3910 | 0.3902 | 0.3613 | 0.3238 | 0.3005 | 0.2064  | 0.32166.81 | 0.987          | 0.995              | 21   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Hexachlorobutadiene     | 1          | 0              | Avg                | 0.1643 | 0.1798 | 0.1330 | 0.1618 | 0.1695 | 0.1756 | 0.1753 | 0.1739 | ----    | 0.16766.85 | 1.00           | 1.00               | 8.9  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| Caprolactam             | 1          | 0              | Qua                | 0.1008 | 0.0536 | 0.0573 | 0.0998 | 0.1117 | 0.1243 | 0.1227 | 0.1283 | ----    | 0.09997.08 | 0.997          | 0.999              | 29   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 4-Chloro-3-methylphe    | 1          | 0              | Qua                | 0.2831 | 0.2439 | 0.2015 | 0.2696 | 0.3069 | 0.3138 | 0.3105 | 0.3246 | ----    | 0.2827.17  | 0.997          | 0.999              | 15   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50  |      |
| 2-Methylnapthalene      | 1          | 0              | Avg                | 0.7119 | 0.7123 | 0.5527 | 0.6646 | 0.7277 | 0.7220 | 0.7016 | 0.7067 | ----    | 0.6877.30  | 0.999          | 1.00               | 8.4  | 50.00 | 2.00  | 10.00 | 20.00 |       |       |       |       |       |      |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Avg Rsd: 15.3

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound.

| Level # | Data File  | Cal Identifier | Analysis Date/Time |     |     |     |     |     |     |     |     |       |    |       |       |      |      | Level # | Data File | Cal Identifier | Analysis Date/Time |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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|         |            |                | RF1                | RF2 | RF3 | RF4 | RF5 | RF6 | RF7 | RF8 | RF9 | AvgRt | RT | Corr1 | Corr2 | %Rsd | Lvl1 |         |           |                | Lvl2               | Lvl3 | Lvl4 | Lvl5 | Lvl6 | Lvl7 | Lvl8 | Lvl9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| 1       | 5M105695.D | CAL BNA@50PPM  | 10/08/18 12:12     |     |     |     |     |     |     |     |     |       |    |       |       |      |      |         |           |                |                    |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criterion if applicable

Avg Rsd: 15.3

Note:  
Corr 1 = Correlation Coefficient for linear Eq.  
Corr 2 = Correlation Coefficient for quad Eq.  
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

| Level #: | Data File: | Cal Identifier: | Analysis Date/Time | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |
|----------|------------|-----------------|--------------------|----------|------------|-----------------|--------------------|
| 1        | 5M105695.D | CAL BNA@50PPM   | 10/08/18 12:12     | 2        | 5M105696.D | CAL BNA@2PPM    | 10/08/18 12:40     |
| 3        | 5M105687.D | CAL BNA@10PPM   | 10/08/18 08:57     | 4        | 5M105693.D | CAL BNA@20PPM   | 10/08/18 11:26     |
| 5        | 5M105692.D | CAL BNA@80PPM   | 10/08/18 10:57     | 6        | 5M105691.D | CAL BNA@120PPM  | 10/08/18 10:34     |
| 7        | 5M105690.D | CAL BNA@160PPM  | 10/08/18 10:11     | 8        | 5M105689.D | CAL BNA@196PPM  | 10/08/18 09:45     |
| 9        | 5M105694.D | CAL BNA@5PPM    | 10/08/18 11:49     |          |            |                 |                    |

| Compound                | Col | Mr | Fit | RF1    | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9  | AvgRt | RT    | Corr1 | Corr2 | %Rsd | Calibration Level Concentrations |      |       |       |       |       |       |       |  |
|-------------------------|-----|----|-----|--------|--------|--------|--------|--------|--------|--------|--------|------|-------|-------|-------|-------|------|----------------------------------|------|-------|-------|-------|-------|-------|-------|--|
| 4,4'-DDE                | 1   | 0  | Avg | 0.2307 | 0.2084 | 0.1697 | 0.2139 | 0.2519 | 0.2543 | 0.2613 | 0.2548 | ---- | 0.231 | 11.35 | 0.999 | 0.999 | 14   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 4,4'-DDD                | 1   | 0  | Avg | 0.3807 | 0.2707 | 0.2517 | 0.3459 | 0.4172 | 0.4273 | 0.4288 | 0.4361 | ---- | 0.370 | 11.75 | 0.997 | 0.998 | 20   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Butylbenzophthalate     | 1   | 0  | Qua | 0.4882 | 0.2450 | 0.2759 | 0.4325 | 0.5483 | 0.5888 | 0.5912 | 0.5900 | ---- | 0.470 | 12.00 | 0.994 | 0.997 | 30   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 4,4'-DDT                | 1   | 0  | Avg | 0.3414 | ----   | 0.2348 | 0.2988 | 0.3672 | 0.3584 | 0.3559 | 0.3550 | ---- | 0.330 | 12.10 | 0.999 | 1.00  | 14   | 50.00                            |      | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| 3,3'-Dichlorobenzidine  | 1   | 0  | Qua | 0.2869 | 0.1702 | 0.1659 | 0.2856 | 0.3223 | 0.3198 | 0.3054 | 0.2991 | ---- | 0.271 | 12.63 | 0.998 | 0.999 | 24   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzolanthracene        | 1   | 0  | Avg | 1.0690 | 1.0390 | 0.8358 | 1.0230 | 1.1875 | 1.1557 | 1.1633 | 1.1792 | ---- | 1.08  | 12.66 | 0.999 | 0.999 | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Chrysene                | 1   | 0  | Avg | 1.0575 | 1.1132 | 0.8530 | 1.0049 | 1.0716 | 1.0673 | 1.0555 | 1.0633 | ---- | 1.04  | 12.70 | 0.999 | 0.999 | 7.7  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| bis(2-Ethylhexyl)phthal | 1   | 0  | Qua | 0.7334 | 0.3485 | 0.3873 | 0.6351 | 0.7948 | 0.8039 | 0.8066 | 0.8031 | ---- | 0.664 | 12.69 | 1.00  | 1.00  | 29   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Di-n-octylphthalate     | 1   | 0  | Qua | 1.3895 | 0.5085 | 0.5528 | 1.0611 | 1.4679 | 1.6214 | 1.7293 | 1.8192 | ---- | 1.27  | 13.44 | 0.995 | 1.00  | 40   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzobifluoranthene     | 1   | 0  | Avg | 1.1427 | 0.9535 | 0.7714 | 0.9902 | 1.1746 | 1.2500 | 1.3222 | 1.4032 | ---- | 1.13  | 13.87 | 0.992 | 0.999 | 19   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzokifluoranthene     | 1   | 0  | Avg | 1.1784 | 0.9919 | 0.8720 | 1.0336 | 1.1328 | 1.2344 | 1.2456 | 1.3749 | ---- | 1.13  | 13.90 | 0.994 | 0.999 | 14   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzolaprene            | 1   | 0  | Qua | 1.1052 | 0.8759 | 0.7090 | 0.9771 | 1.1813 | 1.2247 | 1.2627 | 1.3437 | ---- | 1.09  | 14.22 | 0.994 | 0.999 | 20   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Indenofl.2,3-cdipyrren  | 1   | 0  | Qua | 1.1884 | 1.0072 | 0.8392 | 0.9912 | 1.3043 | 1.3376 | 1.3789 | 1.4681 | ---- | 1.19  | 15.56 | 0.993 | 0.999 | 19   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Dibenzola,h,anthracen   | 1   | 0  | Qua | 1.0096 | 0.8676 | 0.7134 | 0.8380 | 1.1128 | 1.1387 | 1.1555 | 1.2507 | ---- | 1.01  | 15.57 | 0.996 | 0.999 | 18   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |
| Benzola,h,ilberylene    | 1   | 0  | Qua | 0.9773 | 0.9357 | 0.7366 | 0.8422 | 1.0580 | 1.1317 | 1.1698 | 1.2469 | ---- | 1.01  | 15.92 | 0.996 | 1.00  | 17   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |  |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Avg Rsd: 15.3

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound.



SampleID : CAL BNA@50PPM  
Data File: 5M105695.D  
Acq On : 10/ 8/18 12:12

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 5M 100  
Qt On : 10/08/18 12:30  
Qt Upd On: 10/08/18 12:04

8101509 0318

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.505  | 96   | 61090      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 113641     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 421692     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 254335     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 393814     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 394665     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 300723     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 156974     | 45.45   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 45.45%  |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 244100     | 46.68   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 46.68%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 30342      | 24.64   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.28%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 195524     | 23.70   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 47.40%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 34381      | 39.61   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 39.61%  |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 147477     | 21.54   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 43.08%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.532  | 88   | 76945      | 51.0990 | ng    | 88       |
| 9) Pyridine                    | 3.002  | 79   | 196766     | 43.6679 | ng    | 75       |
| 10) N-Nitrosodimethylamine     | 2.938  | 74   | 109562     | 43.1331 | ng    | 80       |
| 12) Benzaldehyde               | 5.368  | 77   | 95723      | 39.6416 | ng    | 82       |
| 13) Aniline                    | 5.464  | 93   | 250007m    | 43.1755 | ng    |          |
| 14) Pentachloroethane          | 5.497  | 117  | 58967      | 42.4338 | ng    | 77       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 181603     | 43.3552 | ng    | 85       |
| 17) Phenol                     | 5.438  | 94   | 255659     | 41.8937 | ng    | 87       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 179692     | 40.6282 | ng    | 81       |
| 19) N-Decane                   | 5.598  | 57   | 206069     | 42.0822 | ng    | 87       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 200870     | 40.0437 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 208952     | 45.6441 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 195165     | 44.7293 | ng    | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 119615     | 45.9937 | ng    | 74       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 261346     | 44.1663 | ng    | 97       |
| 26) 2-Methylphenol             | 5.951  | 108  | 170769     | 44.0062 | ng    | 98       |
| 27) Acetophenone               | 6.073  | 105  | 268045     | 49.5855 | ng    | 79       |
| 28) Hexachloroethane           | 6.154  | 117  | 78730      | 45.6340 | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 132807     | 45.1253 | ng    | 77       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 184576     | 46.7400 | ng    | 99       |
| 33) Nitrobenzene               | 6.212  | 77   | 191277     | 42.1200 | ng    | 79       |
| 34) Isophorone                 | 6.394  | 82   | 339823     | 43.7565 | ng    | 91       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 90780      | 43.8897 | ng    | 90       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 185109     | 41.7498 | ng    | 96       |
| 37) Benzoic Acid               | 6.586  | 105  | 103058     | 51.2601 | ng    | 90       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 219078     | 47.3862 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 147626     | 43.8055 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 158660     | 41.6594 | ng    | 97       |
| 41) Naphthalene                | 6.768  | 128  | 551809     | 47.8820 | ng    | 100      |
| 42) 4-Chloroaniline            | 6.805  | 127  | 204779     | 44.1271 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 86651      | 38.3071 | ng    | 96       |
| 44) Caprolactam                | 7.083  | 113  | 53170      | 47.7752 | ng    | 67       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 149228     | 41.6872 | ng    | 81       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 375271     | 44.9090 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 366211     | 44.6250 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 736709m    | 89.1912 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 438835     | 43.5490 | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 167754     | 45.9784 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 59573      | 37.9556 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 96661      | 44.1434 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 103533     | 41.4292 | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 324994     | 43.1844 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 283812     | 46.9296 | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 283812     | 46.9296 | ng    | 89       |
| 59) Diphenyl Ether             | 7.751  | 170  | 256184     | 47.5980 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 130063     | 43.8062 | ng    | 59       |
| 61) Coumarin                   | 7.954  | 146  | 137744     | 46.4951 | ng    | 74       |
| 62) Acenaphthylene             | 8.045  | 152  | 504010     | 44.7139 | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 363047     | 40.8290 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 84419      | 43.6770 | ng    | 70       |
| 65) Acenaphthene               | 8.194  | 153  | 339936     | 43.8390 | ng    | 96       |

SampleID : CAL BNA@50PPM  
 Data File: 5M105695.D  
 Acq On : 10/ 8/18 12:12

Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:30  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

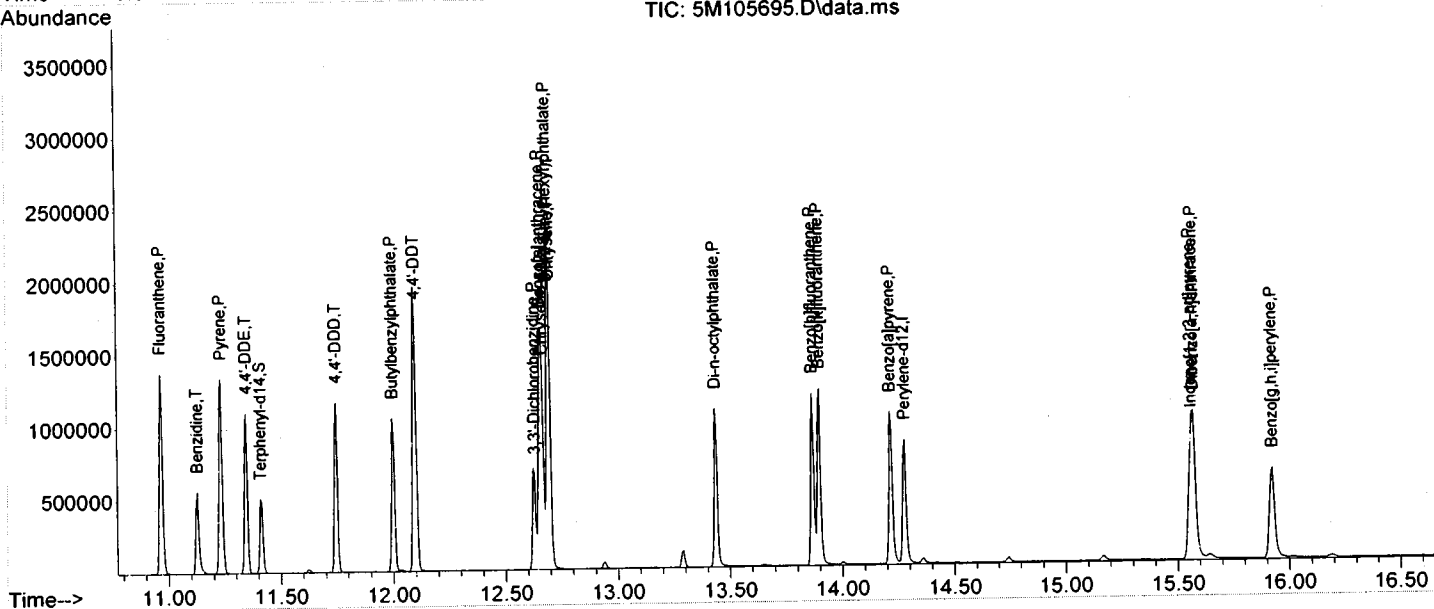
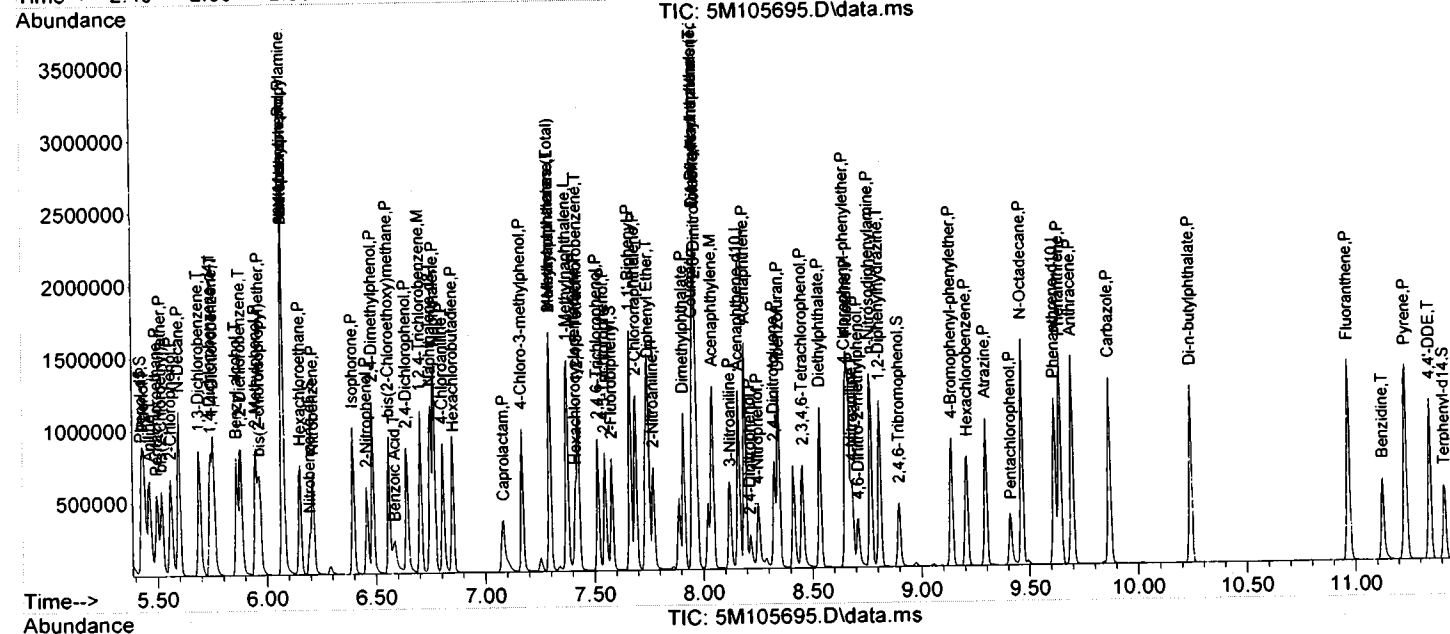
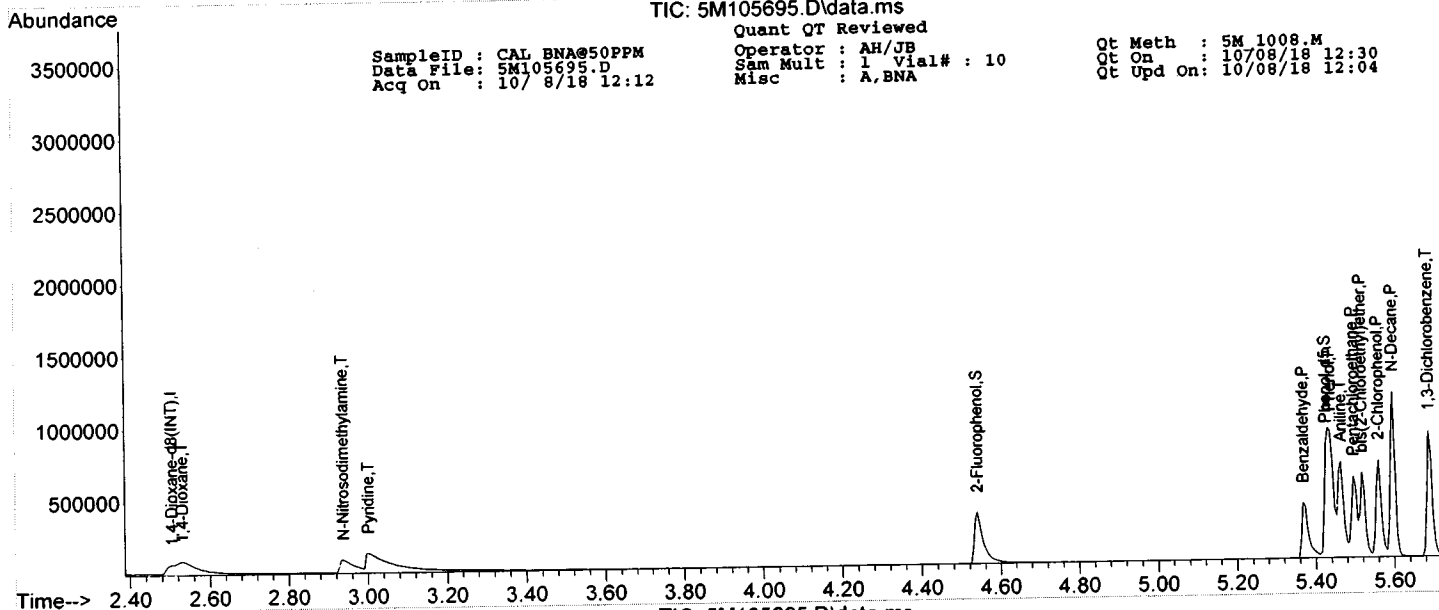
| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 96699    | 47.6297 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 34140    | 39.4860 | ng    | 25       |
| 68) Dibenzofuran               | 8.349  | 168  | 476071   | 45.8889 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 111769   | 44.7329 | ng    | 69       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 69399    | 41.1805 | ng    | 86       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 86738    | 40.0648 | ng    | 84       |
| 72) Fluorene                   | 8.664  | 166  | 375035   | 41.8617 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 166600   | 39.0870 | ng    | 88       |
| 74) Diethylphthalate           | 8.536  | 149  | 363806   | 41.2877 | ng    | 98       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 97919    | 43.5263 | ng    | 82       |
| 76) Atrazine                   | 9.295  | 200  | 101757   | 40.6905 | ng    | 99       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 46352    | 41.2523 | ng    | 62       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 306819   | 45.8299 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 441298   | 49.5724 | ng    | 91       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 90241    | 39.8892 | ng    | 83       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 86168    | 38.1982 | ng    | 74       |
| 84) N-Octadecane               | 9.466  | 57   | 251387   | 49.3370 | ng    | 84       |
| 85) Pentachlorophenol          | 9.412  | 266  | 37660    | 38.5453 | ng    | 97       |
| 86) Phenanthrene               | 9.642  | 178  | 519749   | 44.6441 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178  | 538672   | 45.8051 | ng    | 100      |
| 88) Carbazole                  | 9.866  | 167  | 492545   | 46.1632 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 579681   | 47.1695 | ng    | 97       |
| 90) Fluoranthene               | 10.967 | 202  | 543727   | 42.5135 | ng    | 95       |
| 92) Pyrene                     | 11.234 | 202  | 562158   | 46.1490 | ng    | 88       |
| 93) Benzidine                  | 11.127 | 184  | 210795   | 50.7328 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 114355   | 46.7931 | ng    | 91       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 187833   | 49.5248 | ng    | 90       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 240842   | 46.1337 | ng    | 81       |
| 98) 4,4'-DDT                   | 12.100 | 235  | 168421   | 52.2811 | ng    | 93       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 146478   | 42.7191 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 527400   | 44.8138 | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 521724   | 46.1959 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 361840   | 49.2186 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 522342   | 50.0817 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 429574m  | 46.0602 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 442988   | 48.0748 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.215 | 252  | 415483   | 46.7962 | ng    | 97       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 446759   | 44.6023 | ng    | 96       |
| 109) Dibenzo[a,h]anthracene    | 15.572 | 278  | 379548   | 44.7464 | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.925 | 276  | 367399   | 43.3177 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SampleID : CAL BNA@50PPM  
Data File: 5M105695.D  
Acq On : 10/ 8/18 12:12

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

```
Qt Meth   : 5M 1008.M
Qt On      : 10/08/18 12:30
Qt Upd On: 10/08/18 12:04
```



8101509 0321

SampleID : CAL BNA@2PPM  
 Data File: 5M105696.D  
 Acq On : 10/ 8/18 12:40

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:59  
 Qt Upd On: 10/08/18 12:34

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|------------|--------|-------|----------|
| Internal Standards             |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.505  | 96   | 61353      | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 112107     | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 414944     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 238255     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 425886     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 369346     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 306476     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |        |       |          |
| 11) 2-Fluorophenol             | 4.572  | 112  | 5458m      | 1.77   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 1.77%  |       |          |
| 16) Phenol-d5                  | 5.443  | 99   | 8979       | 1.84   | ng    | 0.02     |
| Spiked Amount 100.000          |        |      | Recovery = | 1.84%  |       |          |
| 32) Nitrobenzene-d5            | 6.207  | 128  | 1100       | 0.90   | ng    | 0.01     |
| Spiked Amount 50.000           |        |      | Recovery = | 1.80%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.585  | 172  | 8043       | 1.06   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 2.12%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.905  | 330  | 894        | 1.23   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 1.23%  |       |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 5711       | 0.97   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 1.94%  |       |          |
| Target Compounds               |        |      |            |        |       |          |
| 8) 1,4-Dioxane                 | 2.548  | 88   | 3015m      | 1.9653 | ng    | 88       |
| 9) Pyridine                    | 3.231  | 79   | 6575m      | 1.7252 | ng    |          |
| 10) N-Nitrosodimethylamine     | 3.055  | 74   | 3685m      | 1.6952 | ng    | 82       |
| 12) Benzaldehyde               | 5.406  | 77   | 3408       | 1.9217 | ng    |          |
| 13) Aniline                    | 5.486  | 93   | 6262m      | 1.2279 | ng    | 78       |
| 14) Pentachloroethane          | 5.497  | 117  | 2512       | 2.0293 | ng    |          |
| 15) bis(2-Chloroethyl)ether    | 5.529  | 93   | 8473       | 2.3669 | ng    | 84       |
| 17) Phenol                     | 5.454  | 94   | 9982       | 1.9312 | ng    |          |
| 18) 2-Chlorophenol             | 5.571  | 128  | 6931       | 1.8938 | ng    | 79       |
| 19) N-Decane                   | 5.598  | 57   | 8633       | 2.0594 | ng    |          |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 8762       | 2.1148 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 9353       | 2.2290 | ng    |          |
| 23) 1,2-Dichlorobenzene        | 5.887  | 146  | 8595       | 2.2176 | ng    | 98       |
| 24) Benzyl alcohol             | 5.881  | 108  | 3477       | 1.5200 | ng    |          |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 11613      | 2.1948 | ng    | 95       |
| 26) 2-Methylphenol             | 5.956  | 108  | 6938       | 2.0709 | ng    |          |
| 27) Acetophenone               | 6.084  | 105  | 10417      | 2.1422 | ng    | 70       |
| 28) Hexachloroethane           | 6.148  | 117  | 3192       | 2.0439 | ng    |          |
| 29) N-Nitroso-di-n-propyla...  | 6.074  | 70   | 4832       | 2.0614 | ng    | 74       |
| 30) 3&4-Methylphenol           | 6.090  | 108  | 6662       | 2.0902 | ng    |          |
| 33) Nitrobenzene               | 6.218  | 77   | 7608       | 1.9847 | ng    | 87       |
| 34) Isophorone                 | 6.399  | 82   | 12090      | 1.8441 | ng    |          |
| 35) 2-Nitrophenol              | 6.469  | 139  | 2485       | 1.3968 | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 6755       | 1.9330 | ng    |          |
| 37) Benzoic Acid               | 0.000  |      | 0          | N.D. d |       | 93       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 8533       | 1.9762 | ng    |          |
| 39) 2,4-Dichlorophenol         | 6.656  | 162  | 4683       | 1.7389 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 7261       | 2.2760 | ng    |          |
| 41) Naphthalene                | 6.768  | 128  | 24784      | 2.1839 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.821  | 127  | 6015       | 1.3262 | ng    |          |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 3732       | 2.1619 | ng    | 99       |
| 44) Caprolactam                | 7.067  | 113  | 1112       | 1.0468 | ng    |          |
| 45) 4-Chloro-3-methylphenol    | 7.174  | 107  | 5061       | 1.7402 | ng    | 84       |
| 46) 2-Methylnaphthalene        | 7.302  | 142  | 14780      | 2.0614 | ng    |          |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 14580      | 2.0690 | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.377  | 142  | 29357m     | 4.1554 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.671  | 154  | 17748      | 2.1152 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 7272       | 2.2221 | ng    |          |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 586        | 0.4985 | ng    | 89       |
| 53) 2,4,6-Trichlorophenol      | 7.527  | 196  | 2764       | 1.4810 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.559  | 196  | 3142       | 1.5903 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 13401      | 2.0993 | ng    |          |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 12335      | 2.3183 | ng    | 88       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 12335      | 2.3183 | ng    |          |
| 59) Diphenyl Ether             | 7.751  | 170  | 10301      | 2.1651 | ng    | 85       |
| 60) 2-Nitroaniline             | 7.778  | 65   | 3958       | 1.5682 | ng    |          |
| 61) Coumarin                   | 7.965  | 146  | 4901       | 2.0023 | ng    | 60       |
| 62) Acenaphthylene             | 8.045  | 152  | 18598      | 1.9420 | ng    |          |
| 63) Dimethylphthalate          | 7.911  | 163  | 14437      | 2.0272 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 2764       | 1.7829 | ng    |          |
| 65) Acenaphthene               | 8.194  | 153  | 14535      | 2.2024 | ng    | 92       |

SampleID : CAL BNA@2PPM  
 Data File: 5M105696.D  
 Acq On : 10/ 8/18 12:40

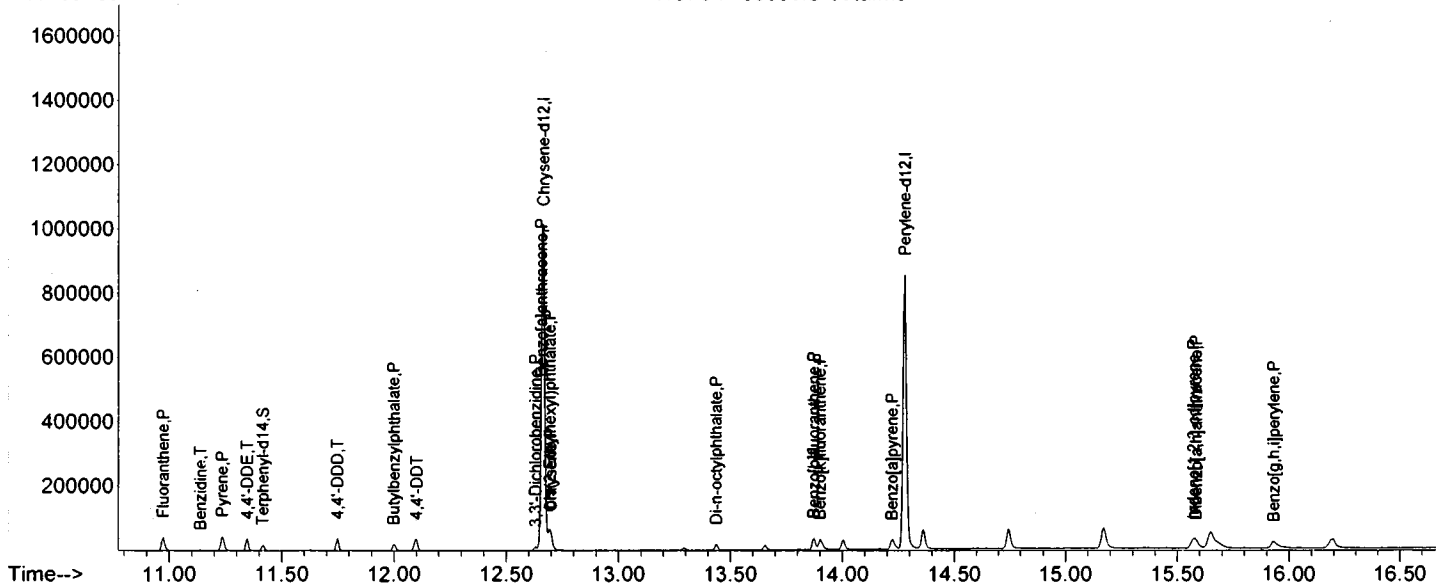
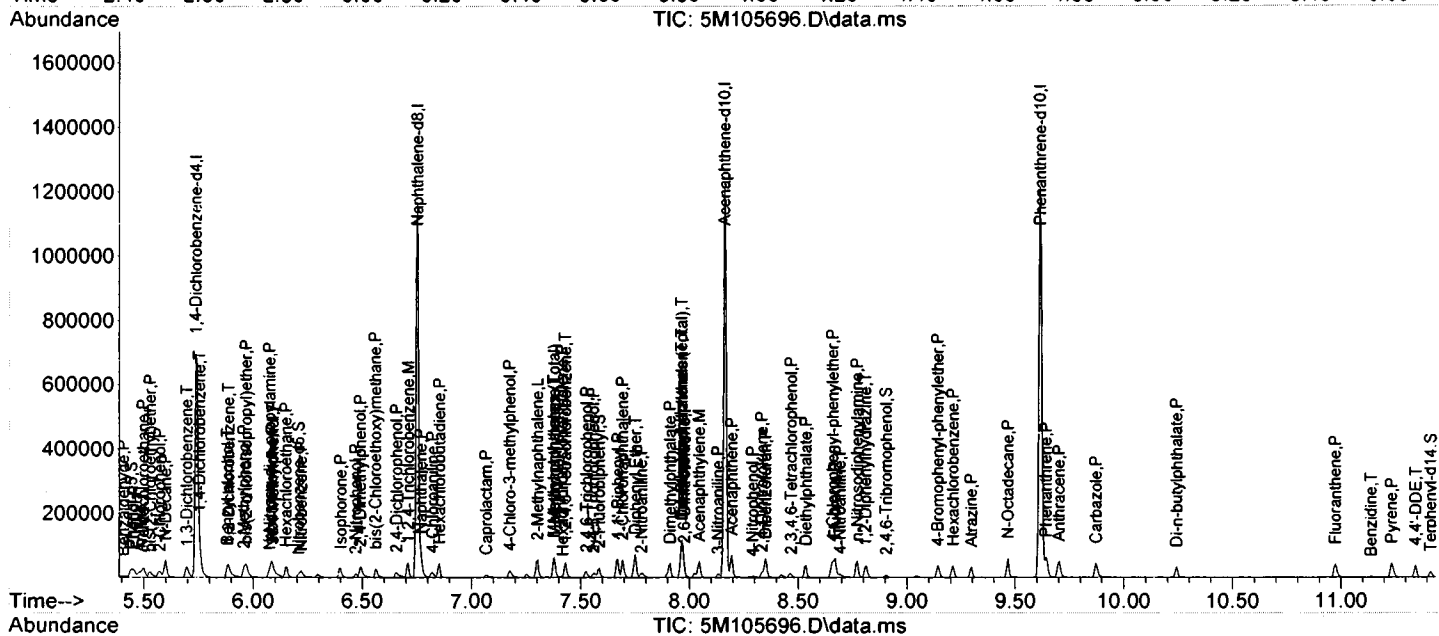
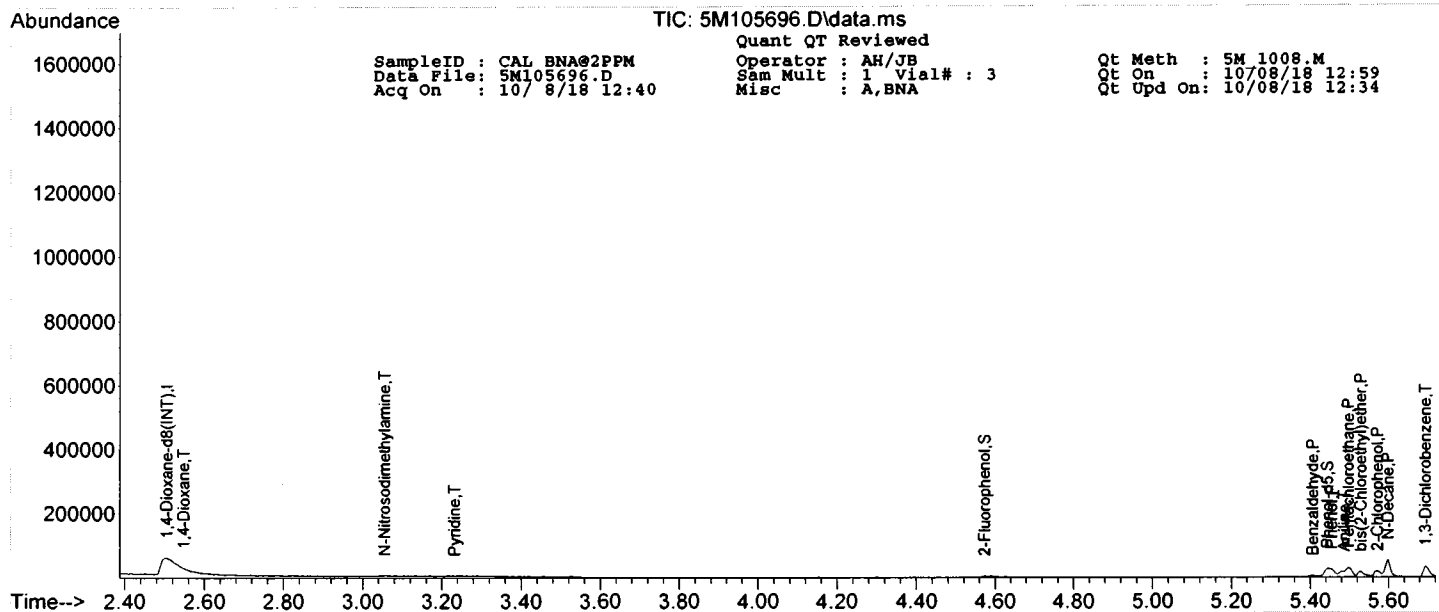
Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:59  
 Qt Upd On: 10/08/18 12:34

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 8.130  | 138  | 2467     | 1.3118 | ng    | 79       |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.349  | 168  | 20440    | 2.1330 | ng    | 94       |
| 69) 2,4-Dinitrotoluene         | 8.333  | 165  | 2963     | 1.3961 | ng    | 76       |
| 70) 4-Nitrophenol              | 8.291  | 65   | 1425     | 1.0919 | ng    | 75       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.467  | 232  | 1981     | 1.2331 | ng    | 88       |
| 72) Fluorene                   | 8.670  | 166  | 14871    | 2.0528 | ng    | 96       |
| 73) 4-Chlorophenyl-phenyle...  | 8.659  | 204  | 6743     | 2.0523 | ng    | 88       |
| 74) Diethylphthalate           | 8.536  | 149  | 13495    | 1.9235 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.691  | 138  | 2122     | 1.0800 | ng    | 95       |
| 76) Atrazine                   | 9.295  | 200  | 3279     | 1.6662 | ng    | 93       |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 11828    | 1.7723 | ng    | 97       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 16482    | 1.7354 | ng    | 91       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 4042     | 2.0404 | ng    | 90       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 4114     | 2.1512 | ng    | 72       |
| 84) N-Octadecane               | 9.466  | 57   | 8754     | 1.6819 | ng    | 86       |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 86) Phenanthrene               | 9.642  | 178  | 25776    | 2.2533 | ng    | 98       |
| 87) Anthracene                 | 9.701  | 178  | 22391    | 1.9549 | ng    | 97       |
| 88) Carbazole                  | 9.872  | 167  | 20327    | 1.9142 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 15460    | 1.1895 | ng    | 98       |
| 90) Fluoranthene               | 10.972 | 202  | 18569    | 1.6032 | ng    | 91       |
| 92) Pyrene                     | 11.234 | 202  | 19881    | 1.9025 | ng    | 92       |
| 93) Benzidine                  | 11.138 | 184  | 2032     | 0.5081 | ng    | 64       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 3850     | 1.8189 | ng    | 92       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 5000     | 1.4863 | ng    | 85       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 4525     | 0.9462 | ng    | 87       |
| 98) 4,4'-DDT                   | 12.100 | 235  | 3732     | 1.3016 | ng    | 92       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 3144     | 1.0433 | ng    | 87       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 19189    | 1.9436 | ng    | 96       |
| 101) Chrysene                  | 12.698 | 228  | 20558    | 2.1600 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.693 | 149  | 6436     | 0.9165 | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 7793     | 0.8233 | ng    | 95       |
| 105) Benzo[b]fluoranthene      | 13.873 | 252  | 14612m   | 1.7010 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 15200    | 1.7599 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 13423    | 1.6463 | ng    | 97       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.572 | 276  | 15435    | 1.6963 | ng    | 92       |
| 109) Dibenzo[a,h]anthracene    | 15.583 | 278  | 13296    | 1.7231 | ng    | 89       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 14339    | 1.8654 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@10PPM  
Data File: 5M105687.D  
Acq On : 10/ 8/18 08:57

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M 1000  
Qt On : 10/08/18 12:05  
Qt Upd On: 08/21/18 13:22

8101509 0324

Data Path : G:\GcMsData\2018\GCMS 5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS 5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| -----                          |        |      |          |         |       |          |
| Internal Standards             |        |      |          |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.500  | 96   | 59151    | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 109412   | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 409237   | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 230363   | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 375941   | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 354389   | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 280783   | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |         |       |          |
| 11) 2-Fluorophenol             | 4.551  | 112  | 20197    | 6.04    | ng    | 0.02     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 6.04% |          |
| 16) Phenol-d5                  | 5.432  | 99   | 37511    | 7.41    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 7.41% |          |
| 32) Nitrobenzene-d5            | 6.202  | 128  | 4464     | 3.73    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 7.46% |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 29185    | 3.91    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 7.82% |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 4145     | 5.00    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 5.00% |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 22311    | 3.63    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 7.26% |          |
| Target Compounds               |        |      |          |         |       |          |
| 8) 1,4-Dioxane                 | 2.537  | 88   | 12027    | 8.5421  | ng    | 95       |
| 9) Pyridine                    | 3.087  | 79   | 25515    | 5.8481  | ng    | 69       |
| 10) N-Nitrosodimethylamine     | 2.980  | 74   | 15323    | 6.2302  | ng    | 86       |
| 12) Benzaldehyde               | 5.379  | 77   | 19028    | 8.1383  | ng    | 79       |
| 13) Aniline                    | 5.470  | 93   | 30767    | 5.5785  | ng    | 61       |
| 14) Pentachloroethane          | 5.497  | 117  | 9087     | 6.7535  | ng    | 72       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 30091    | 7.5944  | ng    | 82       |
| 17) Phenol                     | 5.443  | 94   | 41567    | 7.0347  | ng    | 86       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 27762    | 6.4827  | ng    | 81       |
| 19) N-Decane                   | 5.598  | 57   | 33051    | 6.9707  | ng    | 86       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 32726    | 6.7378  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 33681    | 7.6418  | ng    | 100      |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 31255    | 7.4401  | ng    | 98       |
| 24) Benzyl alcohol             | 5.865  | 108  | 15592    | 6.2271  | ng    | 77       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 43895    | 7.7048  | ng    | 90       |
| 26) 2-Methylphenol             | 5.951  | 108  | 26535    | 7.1022  | ng    | 97       |
| 27) Acetophenone               | 6.074  | 105  | 40707    | 7.8214  | ng    | 79       |
| 28) Hexachloroethane           | 6.148  | 117  | 12233    | 7.3646  | ng    | 80       |
| 29) N-Nitroso-di-n-propyla...  | 6.074  | 70   | 18151    | 6.4058  | ng    | 81       |
| 30) 3&4-Methylphenol           | 6.079  | 108  | 28153    | 7.4047  | ng    | 97       |
| 33) Nitrobenzene               | 6.212  | 77   | 29124    | 6.6084  | ng    | 85       |
| 34) Isophorone                 | 6.394  | 82   | 48247    | 6.4015  | ng    | 91       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 11787    | 5.8721  | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 27495    | 6.3900  | ng    | 99       |
| 37) Benzoic Acid               | 6.592  | 105  | 2627     | 1.7684  | ng    | 82       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 33032    | 7.3622  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 20194    | 6.1746  | ng    | 90       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 25563    | 6.9164  | ng    | 98       |
| 41) Naphthalene                | 6.768  | 128  | 88850    | 8.2110  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.811  | 127  | 23940    | 4.9850  | ng    | 90       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 13608    | 6.1990  | ng    | 96       |
| 44) Caprolactam                | 7.067  | 113  | 5867     | 5.8017  | ng    | 70       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 20621    | 5.9358  | ng    | 77       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 56552    | 6.9736  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 56660    | 7.1145  | ng    | 95       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 112326m  | 14.0129 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 65693    | 6.7176  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 26759    | 8.0974  | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 5127     | 3.9350  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 12386    | 6.5411  | ng    | 97       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 13981    | 6.1767  | ng    | 100      |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 49916    | 7.3229  | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 46158    | 8.4267  | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 46158    | 8.4267  | ng    | 86       |
| 59) Diphenyl Ether             | 7.751  | 170  | 39281    | 8.0577  | ng    | 80       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 17617    | 6.7418  | ng    | 71       |
| 61) Coumarin                   | 7.954  | 146  | 19775    | 7.3696  | ng    | 64       |
| 62) Acenaphthylene             | 8.045  | 152  | 73093    | 7.1593  | ng    | 99       |
| 63) Dimethylphthalate          | 7.906  | 163  | 53582    | 6.6530  | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 11654    | 6.6570  | ng    | 84       |
| 65) Acenaphthene               | 8.194  | 153  | 51707    | 7.3622  | ng    | 96       |

SampleID : CAL\_BNA@10PPM  
 Data File: 5M105687.D  
 Acq On : 10/ 8/18 08:57

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

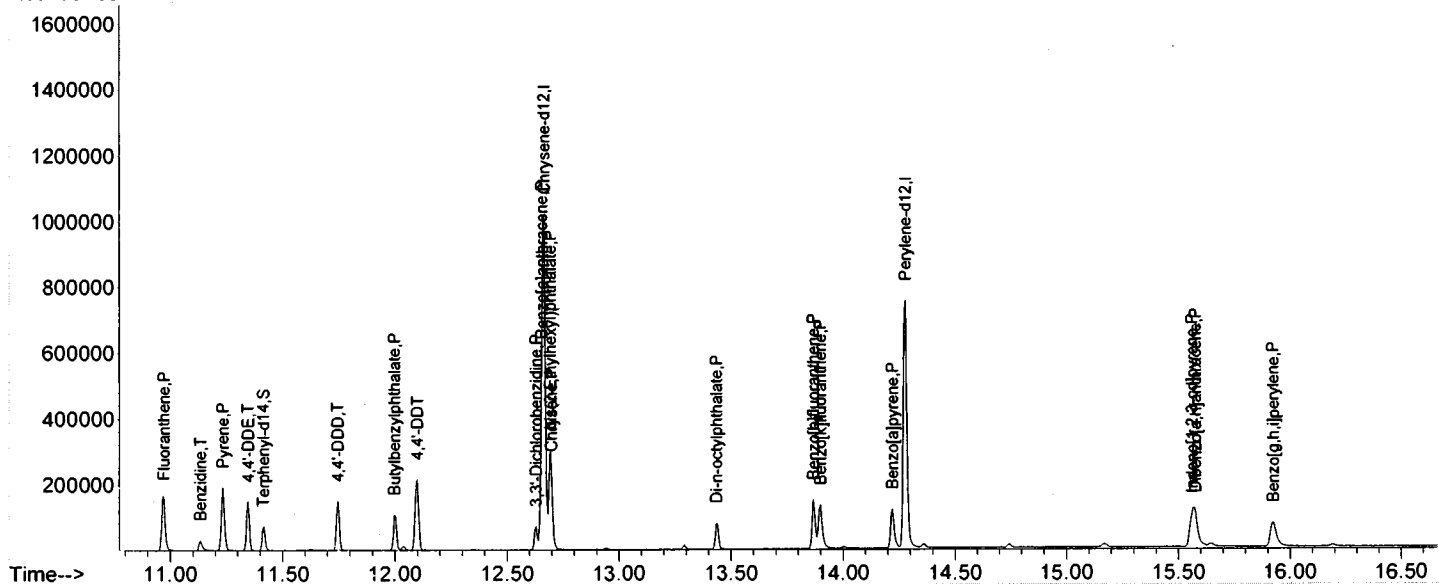
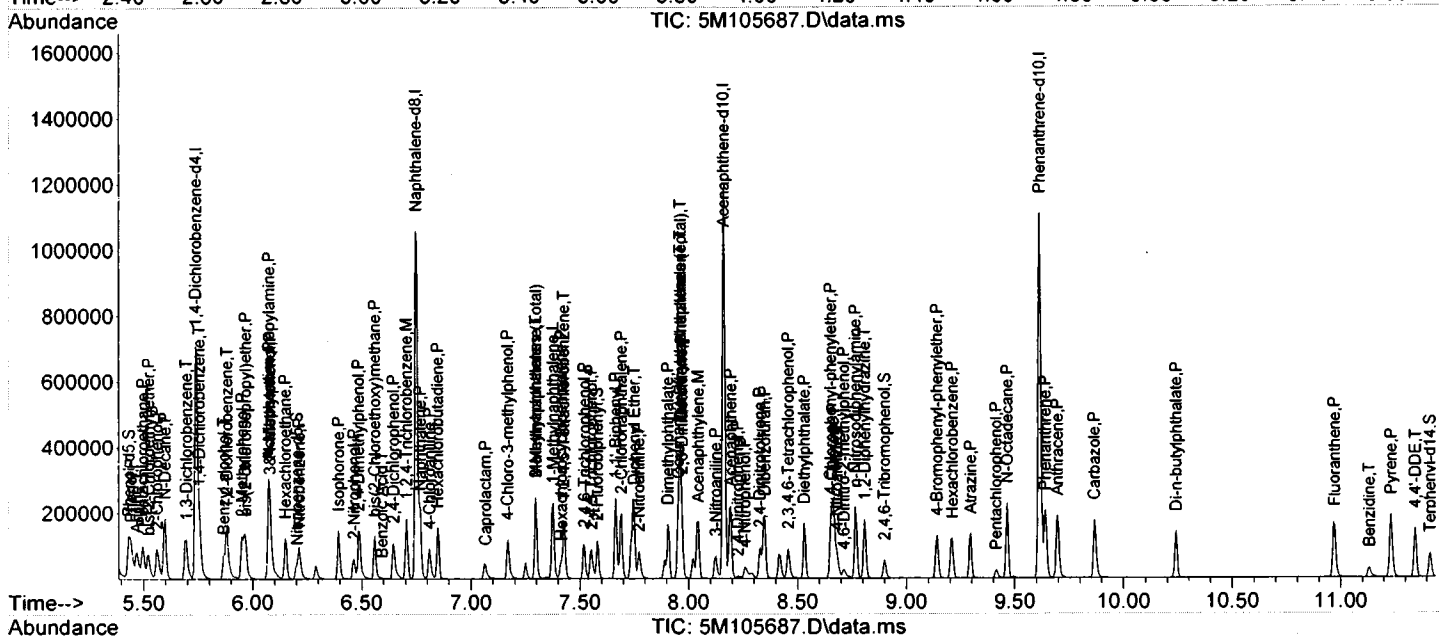
Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 08/21/18 13:22

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.125  | 138  | 11495    | 6.1354 | ng    | 79       |
| 67)  | 2,4-Dinitrophenol         | 8.226  | 184  | 1705     | 2.5331 | ng    | 5        |
| 68)  | Dibenzofuran              | 8.349  | 168  | 72675    | 7.9564 | ng    | 87       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 13980    | 6.4563 | ng    | 74       |
| 70)  | 4-Nitrophenol             | 8.258  | 65   | 6904     | 4.8662 | ng    | 89       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 10968    | 5.5934 | ng    | 82       |
| 72)  | Fluorene                  | 8.664  | 166  | 55631    | 6.8558 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 25252    | 6.5410 | ng    | 90       |
| 74)  | Diethylphthalate          | 8.531  | 149  | 52266    | 6.5488 | ng    | 100      |
| 75)  | 4-Nitroaniline            | 8.681  | 138  | 11790    | 6.0204 | ng    | 88       |
| 76)  | Atrazine                  | 9.295  | 200  | 13342    | 5.8904 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.713  | 198  | 3958     | 3.9892 | ng    | 43       |
| 79)  | n-Nitrosodiphenylamine    | 8.766  | 169  | 46081    | 7.2104 | ng    | 96       |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 68160    | 8.0206 | ng    | 90       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 12999    | 6.0191 | ng    | 83       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 13550    | 6.2923 | ng    | 71       |
| 84)  | N-Octadecane              | 9.466  | 57   | 34688    | 7.1315 | ng    | 86       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 3355     | 4.0713 | ng    | 92       |
| 86)  | Phenanthrene              | 9.642  | 178  | 80039    | 7.2018 | ng    | 99       |
| 87)  | Anthracene                | 9.696  | 178  | 76132    | 6.7815 | ng    | 99       |
| 88)  | Carbazole                 | 9.866  | 167  | 71245    | 6.9948 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 65727    | 5.8884 | ng    | 98       |
| 90)  | Fluoranthene              | 10.972 | 202  | 72427    | 5.9322 | ng    | 92       |
| 92)  | Pyrene                    | 11.234 | 202  | 78432    | 7.1704 | ng    | 89       |
| 93)  | Benzidine                 | 11.133 | 184  | 15686    | 4.1622 | ng    | 86       |
| 95)  | 4,4'-DDE                  | 11.346 | 246  | 15039    | 6.8532 | ng    | 91       |
| 96)  | 4,4'-DDD                  | 11.747 | 235  | 22306    | 6.5497 | ng    | 88       |
| 97)  | Butylbenzylphthalate      | 11.998 | 149  | 24446    | 5.4980 | ng    | 84       |
| 98)  | 4,4'-DDT                  | 12.100 | 235  | 20803    | 7.1916 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.628 | 252  | 14705    | 4.6241 | ng    | 99       |
| 100) | Benzo[a]anthracene        | 12.655 | 228  | 74055    | 7.0077 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 75578    | 7.4526 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.693 | 149  | 34316    | 5.5401 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 38806    | 4.2685 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.868 | 252  | 54149m   | 6.2183 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 61215    | 7.1151 | ng    | 95       |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 49773    | 6.0041 | ng    | 95       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 58909    | 6.2989 | ng    | 94       |
| 109) | Dibenzo[a,h]anthracene    | 15.577 | 278  | 50083    | 6.3238 | ng    | 93       |
| 110) | Benzo[g,h,i]perylene      | 15.925 | 276  | 51709    | 6.5296 | ng    | 79       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@20PPM  
Data File: SM105693.D  
Acq On : 10/ 8/18 11:26

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 5M 100  
Qt On : 10/08/18 12:05  
Qt Upd On: 10/08/18 12:04

8101509 0327

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.505  | 96   | 60709      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 113420     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 410542     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 235917     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.616  | 188  | 387384     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 383384     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.290 | 264  | 328284     | 40.00   | ng    | 0.01     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 58985      | 17.18   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 17.18%  |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 95997      | 18.47   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 18.47%  |       |          |
| 32) Nitrobenzene-d5            | 6.197  | 128  | 11568      | 9.65    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 19.30%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 70295      | 9.19    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 18.38%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 12223      | 14.32   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 14.32%  |       |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 54887      | 8.25    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 16.50%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
|                                |        |      |            |         |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.548  | 88   | 31842m     | 21.7939 | ng    |          |
| 9) Pyridine                    | 3.039  | 79   | 77421      | 17.2897 | ng    | 75       |
| 10) N-Nitrosodimethylamine     | 2.959  | 74   | 43407      | 17.1960 | ng    | 81       |
| 12) Benzaldehyde               | 5.374  | 77   | 50999      | 21.2527 | ng    | 82       |
| 13) Aniline                    | 5.465  | 93   | 98045      | 17.2323 | ng    | 64       |
| 14) Pentachloroethane          | 5.497  | 117  | 22971      | 16.6341 | ng    | 78       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 72051      | 17.6014 | ng    | 87       |
| 17) Phenol                     | 5.443  | 94   | 105356     | 17.3726 | ng    | 84       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 68768      | 15.6460 | ng    | 83       |
| 19) N-Decane                   | 5.598  | 57   | 81525      | 16.7531 | ng    | 85       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 77651      | 15.5770 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 81623      | 17.8647 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 75250      | 17.2799 | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 45187      | 17.4089 | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 101810     | 17.2390 | ng    | 97       |
| 26) 2-Methylphenol             | 5.951  | 108  | 66203      | 17.0934 | ng    | 99       |
| 27) Acetophenone               | 6.074  | 105  | 103060     | 19.1021 | ng    | 80       |
| 28) Hexachloroethane           | 6.148  | 117  | 30259      | 17.5731 | ng    | 82       |
| 29) N-Nitroso-di-n-propyla...  | 6.068  | 70   | 50836      | 17.3068 | ng    | 84       |
| 30) 3&4-Methylphenol           | 6.074  | 108  | 71260      | 18.0803 | ng    | 98       |
| 33) Nitrobenzene               | 6.213  | 77   | 73928      | 16.7214 | ng    | 81       |
| 34) Isophorone                 | 6.394  | 82   | 128527     | 16.9989 | ng    | 90       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 34083      | 16.9257 | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 68158      | 15.7900 | ng    | 95       |
| 37) Benzoic Acid               | 6.565  | 105  | 21700      | 13.5503 | ng    | 90       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 82579      | 18.3468 | ng    | 98       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 55797      | 17.0065 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 58956      | 15.9005 | ng    | 99       |
| 41) Naphthalene                | 6.768  | 128  | 212843     | 19.4230 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.806  | 127  | 80266      | 16.9846 | ng    | 90       |
| 43) Hexachlorobutadiene        | 6.854  | 225  | 33228      | 15.0886 | ng    | 97       |
| 44) Caprolactam                | 7.073  | 113  | 20503      | 19.7633 | ng    | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 55343      | 15.8801 | ng    | 82       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 136430     | 16.7701 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 137693     | 17.2344 | ng    | 95       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 272182m    | 33.8472 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.666  | 154  | 160413     | 16.3514 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 61987      | 18.3159 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.415  | 237  | 17351      | 12.7051 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 32720      | 16.6602 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 37199      | 16.0474 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 121948     | 17.4692 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 111820     | 19.9335 | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 111820     | 19.9335 | ng    | 89       |
| 59) Diphenyl Ether             | 7.751  | 170  | 93203      | 18.6687 | ng    | 79       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 45654      | 16.9245 | ng    | 63       |
| 61) Coumarin                   | 7.954  | 146  | 50474      | 18.3674 | ng    | 69       |
| 62) Acenaphthylene             | 8.045  | 152  | 183308     | 17.5320 | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 137109     | 16.6234 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 31845      | 17.7624 | ng    | 73       |
| 65) Acenaphthene               | 8.195  | 153  | 128384     | 17.8493 | ng    | 96       |

SampleID : CAL BNA@20PPM  
 Data File: 5M105693.D  
 Acq On : 10/ 8/18 11:26

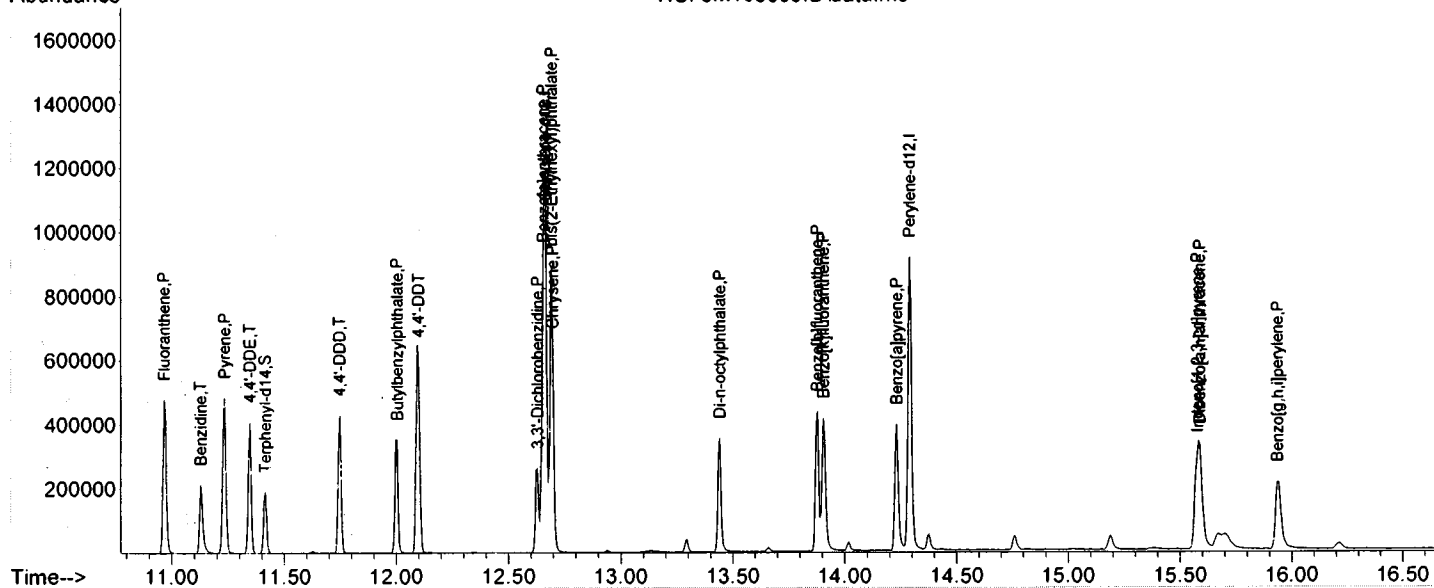
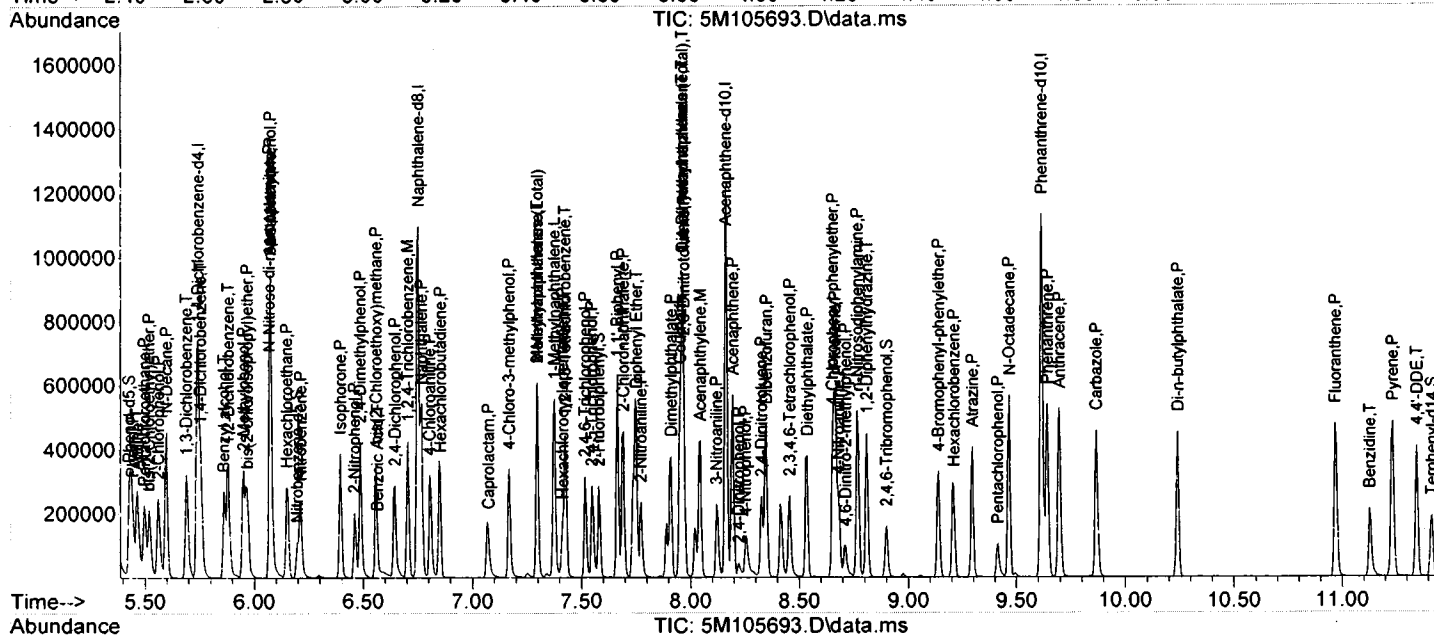
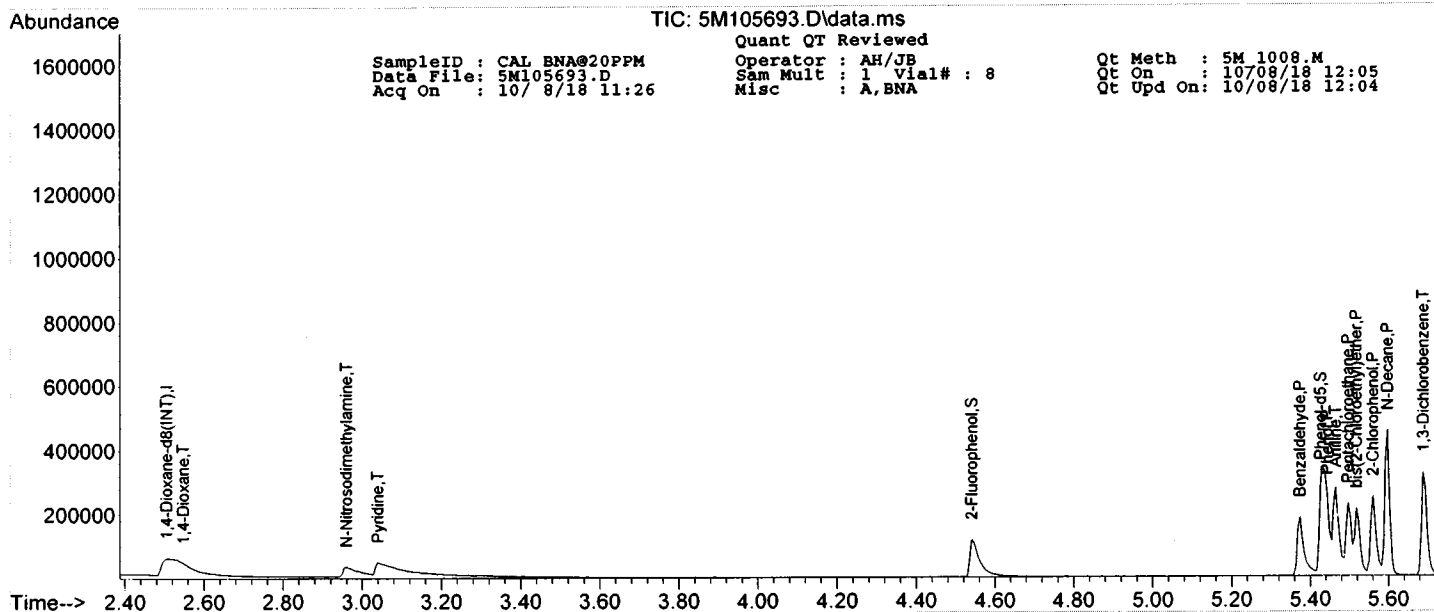
Operator : AH/JB  
 Sam Mult : 1 Vial# : 8  
 Misc : A,BNA

Qt Meth : 5M 1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.120  | 138  | 33944    | 17.7833 | ng    | 80       |
| 67) 2,4-Dinitrophenol          | 8.221  | 184  | 8278     | 11.5485 | ng    | 5        |
| 68) Dibenzofuran               | 8.349  | 168  | 177652   | 18.8361 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 38432    | 17.1158 | ng    | 72       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 22206    | 14.9674 | ng    | 94       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 29890    | 14.8842 | ng    | 83       |
| 72) Fluorene                   | 8.665  | 166  | 141698   | 17.0512 | ng    | 97       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 63043    | 15.9456 | ng    | 90       |
| 74) Diethylphthalate           | 8.536  | 149  | 136081   | 16.6493 | ng    | 99       |
| 75) 4-Nitroaniline             | 8.681  | 138  | 37348    | 18.3772 | ng    | 84       |
| 76) Atrazine                   | 9.295  | 200  | 37346    | 16.0998 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 13867    | 13.2943 | ng    | 57       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 117498   | 17.8421 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 168257   | 19.2146 | ng    | 92       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 33967    | 15.2636 | ng    | 84       |
| 83) Hexachlorobenzene          | 9.210  | 284  | 32674    | 14.7248 | ng    | 74       |
| 84) N-Octadecane               | 9.466  | 57   | 92715    | 18.4982 | ng    | 83       |
| 85) Pentachlorophenol          | 9.413  | 266  | 11365    | 12.9449 | ng    | 90       |
| 86) Phenanthrene               | 9.642  | 178  | 198071   | 17.2958 | ng    | 100      |
| 87) Anthracene                 | 9.696  | 178  | 200499   | 17.3321 | ng    | 99       |
| 88) Carbazole                  | 9.867  | 167  | 182976   | 17.4339 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.241 | 149  | 205574   | 17.6178 | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 195037   | 15.5029 | ng    | 94       |
| 92) Pyrene                     | 11.234 | 202  | 205398   | 17.3578 | ng    | 88       |
| 93) Benzidine                  | 11.127 | 184  | 84102    | 20.7019 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 41006    | 17.2730 | ng    | 90       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 66317    | 17.9999 | ng    | 88       |
| 97) Butylbenzylphthalate       | 12.004 | 149  | 82918    | 16.9779 | ng    | 76       |
| 98) 4,4'-DDT                   | 12.100 | 235  | 57293    | 18.3081 | ng    | 92       |
| 99) 3,3'-Dichlorobenzidine     | 12.629 | 252  | 54756    | 16.0698 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 196104   | 17.1535 | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 192645   | 17.5596 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.693 | 149  | 121743   | 17.8380 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.441 | 149  | 174178   | 16.0913 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.879 | 252  | 162538   | 15.9647 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.905 | 252  | 169668   | 16.8672 | ng    | 95       |
| 107) Benzo[a]pyrene            | 14.231 | 252  | 160397   | 16.5490 | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.578 | 276  | 162702   | 14.8797 | ng    | 93       |
| 109) Dibenzo[a,h]anthracene    | 15.588 | 278  | 137553   | 14.8552 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.935 | 276  | 138243   | 14.9309 | ng    | 79       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



8101509 0330

SampleID : CAL BNA@80PPM  
 Data File: SM105692.D  
 Acq On : 10/ 8/18 10:57

Operator : AH/JB  
 Sam Mult : 1 Vial# : 7  
 Misc : A,BNA

Qt Meth : SM\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|----------|--------|----------|
| -----                          |        |      |          |          |        |          |
| Internal Standards             |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.499  | 96   | 60107    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 111004   | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 404566   | 40.00    | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 226711   | 40.00    | ng     | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 373703   | 40.00    | ng     | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 385959   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 325878   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds    |        |      |          |          |        |          |
| 11) 2-Fluorophenol             | 4.535  | 112  | 266346   | 78.37    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 78.37% |          |
| 16) Phenol-d5                  | 5.432  | 99   | 394317   | 76.65    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 76.65% |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 50778    | 42.98    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 85.96% |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 303615   | 41.29    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 82.58% |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 57793    | 70.17    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 70.17% |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 251836   | 37.62    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 75.24% |          |
| Target Compounds               |        |      |          |          |        |          |
| 8) 1,4-Dioxane                 | 2.532  | 88   | 122713   | 80.8836  | ng     | 85       |
| 9) Pyridine                    | 2.986  | 79   | 323554   | 72.9800  | ng     | 76       |
| 10) N-Nitrosodimethylamine     | 2.927  | 74   | 184628   | 73.8743  | ng     | 78       |
| 12) Benzaldehyde               | 5.368  | 77   | 137168   | 57.7341  | ng     | 78       |
| 13) Aniline                    | 5.464  | 93   | 402282m  | 69.8029  | ng     |          |
| 14) Pentachloroethane          | 5.496  | 117  | 97343    | 71.1956  | ng     | 79       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 296872   | 70.7818  | ng     | 85       |
| 17) Phenol                     | 5.443  | 94   | 414421   | 69.0199  | ng     | 84       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 293580   | 67.4637  | ng     | 82       |
| 19) N-Decane                   | 5.598  | 57   | 335494   | 69.6331  | ng     | 87       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 325318   | 65.9132  | ng     | 97       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 334227   | 74.7439  | ng     | 97       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 312805   | 73.3940  | ng     | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 199970   | 78.7179  | ng     | 73       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 419299   | 72.5430  | ng     | 100      |
| 26) 2-Methylphenol             | 5.951  | 108  | 277267   | 73.1476  | ng     | 96       |
| 27) Acetophenone               | 6.073  | 105  | 414747   | 78.5464  | ng     | 79       |
| 28) Hexachloroethane           | 6.154  | 117  | 124693   | 73.9924  | ng     | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 211249   | 73.4836  | ng     | 73       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 287184   | 74.4509  | ng     | 93       |
| 33) Nitrobenzene               | 6.212  | 77   | 307849   | 70.6592  | ng     | 80       |
| 34) Isophorone                 | 6.394  | 82   | 546344   | 73.3266  | ng     | 92       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 156469   | 78.8508  | ng     | 90       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 302413   | 71.0940  | ng     | 96       |
| 37) Benzoic Acid               | 6.602  | 105  | 241578   | 101.0130 | ng     | 88       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 350932   | 79.1192  | ng     | 97       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 242079   | 74.8736  | ng     | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 259159   | 70.9280  | ng     | 98       |
| 41) Naphthalene                | 6.768  | 128  | 895877   | 79.0150  | ng     | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 315740   | 74.8080  | ng     | 92       |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 137146   | 63.1968  | ng     | 97       |
| 44) Caprolactam                | 7.094  | 113  | 90401    | 80.6442  | ng     | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 248399   | 72.3283  | ng     | 81       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 588812   | 73.4465  | ng     | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 577825   | 73.3921  | ng     | 94       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 1159300m | 146.2945 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 689066   | 71.2761  | ng     | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 266734   | 82.0149  | ng     | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 106094   | 70.2616  | ng     | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 152437   | 75.2774  | ng     | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 172091   | 77.2537  | ng     | 98       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 519592   | 77.4546  | ng     | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.970  | 156  | 450486   | 83.5663  | ng     | 87       |
| 58) Dimethylnaphthalenes (...) | 7.970  | 156  | 450486   | 83.5663  | ng     | 87       |
| 59) Diphenyl Ether             | 7.751  | 170  | 400166   | 83.4085  | ng     | 81       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 209157   | 77.0712  | ng     | 61       |
| 61) Coumarin                   | 7.959  | 146  | 216408   | 81.9485  | ng     | 72       |
| 62) Acenaphthylene             | 8.045  | 152  | 793420   | 78.9661  | ng     | 100      |
| 63) Dimethylphthalate          | 7.917  | 163  | 582526   | 73.4946  | ng     | 99       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 133661   | 77.5803  | ng     | 62       |
| 65) Acenaphthene               | 8.194  | 153  | 535150   | 77.4235  | ng     | 97       |

SampleID : CAL BNA@80PPM  
 Data File: 5M105692.D  
 Acq On : 10/ 8/18 10:57

Operator : AH/JB  
 Sam Mult : 1 Vial# : 7  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 141753   | 79.4796 | ng    | 77       |
| 67) 2,4-Dinitrophenol          | 8.221  | 184  | 64051    | 73.5720 | ng    | 36       |
| 68) Dibenzofuran               | 8.349  | 168  | 750229   | 79.1855 | ng    | 87       |
| 69) 2,4-Dinitrotoluene         | 8.333  | 165  | 171752   | 74.6008 | ng    | 67       |
| 70) 4-Nitrophenol              | 8.258  | 65   | 113370   | 71.2990 | ng    | 86       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 140017   | 72.5552 | ng    | 84       |
| 72) Fluorene                   | 8.670  | 166  | 617153   | 77.2809 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 275935   | 72.6269 | ng    | 89       |
| 74) Diethylphthalate           | 8.536  | 149  | 584527   | 74.4199 | ng    | 99       |
| 75) 4-Nitroaniline             | 8.691  | 138  | 166214   | 79.8750 | ng    | 80       |
| 76) Atrazine                   | 9.300  | 200  | 173121   | 77.6627 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 83642    | 73.6443 | ng    | 47       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 506460   | 79.7217 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 706578   | 83.6436 | ng    | 92       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 151817   | 70.7191 | ng    | 87       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 142714   | 66.6696 | ng    | 76       |
| 84) N-Octadecane               | 9.466  | 57   | 408486   | 84.4834 | ng    | 83       |
| 85) Pentachlorophenol          | 9.412  | 266  | 72071    | 70.2203 | ng    | 98       |
| 86) Phenanthrene               | 9.642  | 178  | 862318   | 78.0553 | ng    | 99       |
| 87) Anthracene                 | 9.701  | 178  | 867349   | 77.7227 | ng    | 100      |
| 88) Carbazole                  | 9.872  | 167  | 822291   | 81.2157 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 972924   | 80.3000 | ng    | 97       |
| 90) Fluoranthene               | 10.972 | 202  | 919100   | 75.7309 | ng    | 92       |
| 92) Pyrene                     | 11.234 | 202  | 944727   | 79.3044 | ng    | 90       |
| 93) Benzidine                  | 11.127 | 184  | 337163   | 83.5721 | ng    | 89       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 194502   | 81.3838 | ng    | 90       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 322063   | 86.8318 | ng    | 89       |
| 97) Butylbenzylphthalate       | 12.003 | 149  | 423283   | 79.5412 | ng    | 74       |
| 98) 4,4'-DDT                   | 12.100 | 235  | 283463   | 89.9771 | ng    | 93       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 248821   | 76.4243 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 916693   | 79.6494 | ng    | 100      |
| 101) Chrysene                  | 12.698 | 228  | 827243   | 74.9002 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.692 | 149  | 613520   | 81.6018 | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.440 | 149  | 956766   | 81.0177 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.873 | 252  | 765584   | 75.7517 | ng    | 97       |
| 106) Benzo[k]fluoranthene      | 13.905 | 252  | 738360m  | 73.9444 | ng    |          |
| 107) Benzo[a]pyrene            | 14.226 | 252  | 769957   | 80.0268 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.567 | 276  | 850136   | 78.3221 | ng    | 95       |
| 109) Dibenzo[a,h]anthracene    | 15.583 | 278  | 725286   | 78.9065 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.935 | 276  | 689584   | 75.0284 | ng    | 82       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



8101509 0333

SampleID : CAL BNA@120PPM  
Data File: 5M105691.D  
Acq On : 10/ 8/18 10:34

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 5M 1000.1  
Qt On : 10/08/18 12:05  
Qt Upd On: 10/08/18 12:04

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 59301    | 40.00    | ng      | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 111021   | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 404863   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.168  | 164  | 233227   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 385060   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.671 | 240  | 391944   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 327733   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 433098   | 129.17   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 129.17% |          |
| 16) Phenol-d5                  | 5.432  | 99   | 622832   | 122.71   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 122.71% |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 80310    | 67.92    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 135.84% |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 468592   | 61.95    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 123.90% |          |
| 80) 2,4,6-Tribromophenol       | 8.905  | 330  | 93774    | 110.50   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 110.50% |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 417456   | 61.40    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 122.80% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.537  | 88   | 185321   | 120.1015 | ng      | 89       |
| 9) Pyridine                    | 2.986  | 79   | 496436   | 113.4968 | ng      | 74       |
| 10) N-Nitrosodimethylamine     | 2.932  | 74   | 286057   | 116.0142 | ng      | 80       |
| 12) Benzaldehyde               | 5.368  | 77   | 188098   | 80.2466  | ng      | 83       |
| 13) Aniline                    | 5.464  | 93   | 648049   | 111.9525 | ng      | 46       |
| 14) Pentachloroethane          | 5.502  | 117  | 155005   | 114.9098 | ng      | 80       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 474881   | 111.8525 | ng      | 83       |
| 17) Phenol                     | 5.448  | 94   | 635051   | 107.2023 | ng      | 85       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 470137   | 109.5044 | ng      | 80       |
| 19) N-Decane                   | 5.598  | 57   | 524842   | 110.4137 | ng      | 88       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 504887   | 103.6864 | ng      | 98       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 519709   | 116.2059 | ng      | 98       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 484048   | 113.5557 | ng      | 98       |
| 24) Benzyl alcohol             | 5.865  | 108  | 312505   | 122.9984 | ng      | 71       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 654780   | 113.2663 | ng      | 100      |
| 26) 2-Methylphenol             | 5.951  | 108  | 433950   | 114.4656 | ng      | 99       |
| 27) Acetophenone               | 6.079  | 105  | 593894   | 112.4567 | ng      | 80       |
| 28) Hexachloroethane           | 6.154  | 117  | 197833   | 117.3754 | ng      | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.079  | 70   | 302992   | 105.3806 | ng      | 69       |
| 30) 3&4-Methylphenol           | 6.079  | 108  | 410839   | 106.4915 | ng      | 99       |
| 33) Nitrobenzene               | 6.212  | 77   | 481355   | 110.4022 | ng      | 83       |
| 34) Isophorone                 | 6.399  | 82   | 851554   | 114.2061 | ng      | 89       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 243866   | 122.8034 | ng      | 92       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 462845   | 108.7300 | ng      | 94       |
| 37) Benzoic Acid               | 6.618  | 105  | 436411   | 152.1162 | ng      | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 532607   | 119.9905 | ng      | 98       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 379367   | 117.2499 | ng      | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 401604   | 109.8325 | ng      | 99       |
| 41) Naphthalene                | 6.768  | 128  | 1330124  | 114.0407 | ng      | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 438848   | 111.1117 | ng      | 91       |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 213364   | 98.2459  | ng      | 97       |
| 44) Caprolactam                | 7.104  | 113  | 151071   | 126.3253 | ng      | 70       |
| 45) 4-Chloro-3-methylphenol    | 7.174  | 107  | 381163   | 110.9048 | ng      | 80       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 876990   | 109.3126 | ng      | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 863188   | 109.5569 | ng      | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 1727823m | 217.8777 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 1040003  | 107.4976 | ng      | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 409183   | 122.2997 | ng      | 97       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 182102   | 107.9717 | ng      | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 248975   | 114.3354 | ng      | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 264686   | 115.5010 | ng      | 98       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 797130   | 115.5068 | ng      | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.970  | 156  | 631164   | 113.8114 | ng      | 93       |
| 58) Dimethylnaphthalenes (...) | 7.970  | 156  | 631164   | 113.8114 | ng      | 93       |
| 59) Diphenyl Ether             | 7.751  | 170  | 587433   | 119.0206 | ng      | 81       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 309869   | 108.4567 | ng      | 67       |
| 61) Coumarin                   | 7.965  | 146  | 303331   | 111.6550 | ng      | 65       |
| 62) Acenaphthylene             | 8.045  | 152  | 1218567  | 117.8909 | ng      | 100      |
| 63) Dimethylphthalate          | 7.922  | 163  | 905331   | 111.0302 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 197023   | 111.1622 | ng      | 73       |
| 65) Acenaphthene               | 8.194  | 153  | 811576   | 114.1354 | ng      | 98       |



SampleID : CAL BNA@120PPM  
Data File: 5M105691.D  
Acq On : 10/ 8/18 10:34

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/08/18 12:05  
Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.130  | 138  | 206856   | 114.5985 | ng    | 73       |
| 67)  | 2,4-Dinitrophenol         | 8.221  | 184  | 109387   | 109.0929 | ng    | 37       |
| 68)  | Dibenzofuran              | 8.349  | 168  | 1153490  | 115.3500 | ng    | 88       |
| 69)  | 2,4-Dinitrotoluene        | 8.333  | 165  | 278851   | 112.9986 | ng    | 73       |
| 70)  | 4-Nitrophenol             | 8.258  | 65   | 181626   | 104.6349 | ng    | 90       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 223574   | 112.6166 | ng    | 85       |
| 72)  | Fluorene                  | 8.670  | 166  | 916626   | 111.5745 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.659  | 204  | 425368   | 108.8301 | ng    | 85       |
| 74)  | Diethylphthalate          | 8.542  | 149  | 909002   | 112.4975 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.696  | 138  | 259974   | 117.0858 | ng    | 80       |
| 76)  | Atrazine                  | 9.305  | 200  | 270752   | 118.0669 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.718  | 198  | 140345   | 111.8505 | ng    | 53       |
| 79)  | n-Nitrosodiphenylamine    | 8.777  | 169  | 793704   | 121.2518 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.814  | 77   | 1098563  | 126.2106 | ng    | 87       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 233645   | 105.6260 | ng    | 88       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 218242   | 98.9459  | ng    | 82       |
| 84)  | N-Octadecane              | 9.466  | 57   | 634037   | 127.2645 | ng    | 84       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 121821   | 104.3307 | ng    | 96       |
| 86)  | Phenanthrene              | 9.647  | 178  | 1306407  | 114.7655 | ng    | 100      |
| 87)  | Anthracene                | 9.701  | 178  | 1378456  | 119.8796 | ng    | 98       |
| 88)  | Carbazole                 | 9.872  | 167  | 1260268  | 120.8024 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 1535960  | 117.9963 | ng    | 98       |
| 90)  | Fluoranthene              | 10.972 | 202  | 1427335  | 114.1392 | ng    | 96       |
| 92)  | Pyrene                    | 11.234 | 202  | 1470638  | 121.5665 | ng    | 93       |
| 93)  | Benzidine                 | 11.127 | 184  | 504521   | 124.2496 | ng    | 89       |
| 95)  | 4,4'-DDE                  | 11.346 | 246  | 299099   | 123.2383 | ng    | 92       |
| 96)  | 4,4'-DDD                  | 11.747 | 235  | 502521   | 133.4165 | ng    | 89       |
| 97)  | Butylbenzylphthalate      | 12.003 | 149  | 692327   | 121.8441 | ng    | 77       |
| 98)  | 4,4'-DDT                  | 12.105 | 235  | 421440   | 131.7312 | ng    | 92       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.634 | 252  | 376142   | 118.1426 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.660 | 228  | 1358980  | 116.2757 | ng    | 99       |
| 101) | Chrysene                  | 12.703 | 228  | 1255017  | 111.8966 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.692 | 149  | 945255   | 118.0016 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.440 | 149  | 1594223  | 126.2951 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.873 | 252  | 1229084  | 120.9250 | ng    | 97       |
| 106) | Benzo[k]fluoranthene      | 13.905 | 252  | 1213747m | 120.8648 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.226 | 252  | 1204141  | 124.4461 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.567 | 276  | 1315164  | 120.4788 | ng    | 97       |
| 109) | Dibenzo[a,h]anthracene    | 15.583 | 278  | 1119605  | 121.1164 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 15.941 | 276  | 1112738  | 120.3833 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@160PPM  
Data File: 5M105690.D  
Acq On : 10/ 8/18 10:11

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/08/18 12:05  
Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.494  | 96   | 58983    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 111440   | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 407314   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.168  | 164  | 230779   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.621  | 188  | 375774   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.671 | 240  | 383131   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.285 | 264  | 309368   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.535  | 112  | 565555   | 169.58   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 169.58% |          |
| 16) Phenol-d5                  | 5.438  | 99   | 819686   | 162.37   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 162.37% |          |
| 32) Nitrobenzene-d5            | 6.202  | 128  | 106077   | 89.17    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 178.34% |          |
| 55) 2-Fluorobiphenyl           | 7.585  | 172  | 623521   | 83.30    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 166.60% |          |
| 80) 2,4,6-Tribromophenol       | 8.905  | 330  | 128801   | 155.52   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 155.52% |          |
| 94) Terphenyl-d14              | 11.421 | 244  | 546394   | 82.22    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 164.44% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.526  | 88   | 250801m  | 158.7300 | ng      |          |
| 9) Pyridine                    | 2.970  | 79   | 683906   | 157.1997 | ng      | 75       |
| 10) N-Nitrosodimethylamine     | 2.916  | 74   | 388010   | 158.2110 | ng      | 80       |
| 12) Benzaldehyde               | 5.368  | 77   | 223050   | 95.6709  | ng      | 80       |
| 13) Aniline                    | 5.465  | 93   | 831406   | 142.5641 | ng      | 46       |
| 14) Pentachloroethane          | 5.497  | 117  | 206544   | 153.9427 | ng      | 81       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 611809   | 142.2153 | ng      | 83       |
| 17) Phenol                     | 5.449  | 94   | 800934   | 135.9337 | ng      | 85       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 613630   | 143.6974 | ng      | 81       |
| 19) N-Decane                   | 5.598  | 57   | 679448   | 143.7096 | ng      | 87       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 669310   | 138.1943 | ng      | 98       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 681613   | 151.8342 | ng      | 97       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 638186   | 149.1529 | ng      | 98       |
| 24) Benzyl alcohol             | 5.865  | 108  | 419516   | 164.4958 | ng      | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 864120   | 148.9167 | ng      | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 574329   | 150.9246 | ng      | 98       |
| 27) Acetophenone               | 6.079  | 105  | 748152   | 141.1336 | ng      | 77       |
| 28) Hexachloroethane           | 6.154  | 117  | 260600   | 154.0341 | ng      | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.079  | 70   | 382209   | 132.4325 | ng      | 68       |
| 30) 3&4-Methylphenol           | 6.084  | 108  | 510367   | 131.7922 | ng      | 98       |
| 33) Nitrobenzene               | 6.212  | 77   | 640121   | 145.9329 | ng      | 84       |
| 34) Isophorone                 | 6.399  | 82   | 1123712  | 149.7996 | ng      | 91       |
| 35) 2-Nitrophenol              | 6.464  | 139  | 333648   | 167.0039 | ng      | 84       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 613816   | 143.3279 | ng      | 97       |
| 37) Benzoic Acid               | 6.635  | 105  | 613831   | 189.6086 | ng      | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.565  | 93   | 719258   | 161.0659 | ng      | 97       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 505746   | 155.3689 | ng      | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 528306   | 143.6141 | ng      | 98       |
| 41) Naphthalene                | 6.768  | 128  | 1727135  | 143.8575 | ng      | 98       |
| 42) 4-Chloroaniline            | 6.811  | 127  | 527701   | 140.7952 | ng      | 94       |
| 43) Hexachlorobutadiene        | 6.854  | 225  | 285693   | 130.7590 | ng      | 96       |
| 44) Caprolactam                | 7.121  | 113  | 199920   | 159.0967 | ng      | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.179  | 107  | 505999   | 146.3417 | ng      | 79       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 1143178  | 141.6342 | ng      | 98       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 1091155  | 137.6574 | ng      | 92       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 2218277m | 278.0404 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.671  | 154  | 1303957  | 133.9696 | ng      | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.431  | 216  | 518364   | 156.5760 | ng      | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 244825   | 138.0173 | ng      | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 321592   | 144.4268 | ng      | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 346789   | 152.9335 | ng      | 95       |
| 56) 2-Chloronaphthalene        | 7.698  | 162  | 1040811  | 152.4168 | ng      | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.970  | 156  | 750556   | 136.7758 | ng      | 96       |
| 58) Dimethylnaphthalenes (...) | 7.970  | 156  | 750556   | 136.7758 | ng      | 96       |
| 59) Diphenyl Ether             | 7.751  | 170  | 703113   | 143.9698 | ng      | 89       |
| 60) 2-Nitroaniline             | 7.778  | 65   | 422591   | 145.5499 | ng      | 64       |
| 61) Coumarin                   | 7.970  | 146  | 359163   | 133.6089 | ng      | 57       |
| 62) Acenaphthylene             | 8.050  | 152  | 1595938  | 156.0377 | ng      | 99       |
| 63) Dimethylphthalate          | 7.927  | 163  | 1188114  | 147.2565 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 7.981  | 165  | 259107   | 147.7413 | ng      | 72       |
| 65) Acenaphthene               | 8.200  | 153  | 1055786  | 150.0547 | ng      | 96       |

SampleID : CAL\_BNA@160PPM  
 Data File: 5M105690.D  
 Acq On : 10/ 8/18 10:11

Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.130  | 138  | 265882   | 151.4812 | ng    | 80       |
| 67) 2,4-Dinitrophenol          | 8.226  | 184  | 162564   | 147.0597 | ng    | 42       |
| 68) Dibenzofuran               | 8.355  | 168  | 1472395  | 145.7048 | ng    | 90       |
| 69) 2,4-Dinitrotoluene         | 8.339  | 165  | 372353   | 147.2114 | ng    | 73       |
| 70) 4-Nitrophenol              | 8.264  | 65   | 259056   | 141.7343 | ng    | 88       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.462  | 232  | 299675   | 152.5508 | ng    | 85       |
| 72) Fluorene                   | 8.675  | 166  | 1175429  | 144.5945 | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.659  | 204  | 541018   | 139.8874 | ng    | 89       |
| 74) Diethylphthalate           | 8.547  | 149  | 1197352  | 149.7554 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.702  | 138  | 352321   | 154.7433 | ng    | 81       |
| 76) Atrazine                   | 9.311  | 200  | 358150   | 157.8353 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.723  | 198  | 196681   | 150.4034 | ng    | 51       |
| 79) n-Nitrosodiphenylamine     | 8.777  | 169  | 993480   | 155.5215 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.814  | 77   | 1462836  | 172.2139 | ng    | 91       |
| 82) 4-Bromophenyl-phenylether  | 9.145  | 248  | 307208   | 142.3143 | ng    | 86       |
| 83) Hexachlorobenzene          | 9.215  | 284  | 287081   | 133.3722 | ng    | 80       |
| 84) N-Octadecane               | 9.471  | 57   | 805884   | 165.7551 | ng    | 80       |
| 85) Pentachlorophenol          | 9.412  | 266  | 172458   | 138.3414 | ng    | 97       |
| 86) Phenanthrene               | 9.648  | 178  | 1707338  | 153.6930 | ng    | 99       |
| 87) Anthracene                 | 9.706  | 178  | 1795002  | 159.9628 | ng    | 99       |
| 88) Carbazole                  | 9.877  | 167  | 1676427  | 164.6641 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.246 | 149  | 2038935  | 154.4041 | ng    | 98       |
| 90) Fluoranthene               | 10.978 | 202  | 1855766  | 152.0665 | ng    | 93       |
| 92) Pyrene                     | 11.240 | 202  | 1892644  | 160.0493 | ng    | 93       |
| 93) Benzidine                  | 11.133 | 184  | 641080   | 162.9000 | ng    | 89       |
| 95) 4,4'-DDE                   | 11.352 | 246  | 400486   | 168.8087 | ng    | 91       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 657247   | 178.5092 | ng    | 89       |
| 97) Butylbenzylphthalate       | 12.009 | 149  | 906067   | 156.7915 | ng    | 75       |
| 98) 4,4'-DDT                   | 12.105 | 235  | 545497   | 174.4303 | ng    | 91       |
| 99) 3,3'-Dichlorobenzidine     | 12.634 | 252  | 468065   | 155.8079 | ng    | 98       |
| 100) Benzo[a]anthracene        | 12.661 | 228  | 1782828  | 156.0493 | ng    | 98       |
| 101) Chrysene                  | 12.709 | 228  | 1617705  | 147.5514 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.693 | 149  | 1236139  | 151.3617 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.446 | 149  | 2140020  | 169.9172 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.879 | 252  | 1636220  | 170.5380 | ng    | 97       |
| 106) Benzo[k]fluoranthene      | 13.911 | 252  | 1541402m | 162.6045 | ng    |          |
| 107) Benzo[a]pyrene            | 14.231 | 252  | 1562557  | 171.0742 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.577 | 276  | 1706410  | 165.5995 | ng    | 96       |
| 109) Dibenzo[a,h]anthracene    | 15.593 | 278  | 1429917  | 163.8679 | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.951 | 276  | 1447609  | 165.9088 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



8101509 0339

SampleID : CAL BNA@196PPM  
 Data File: 5M105689.D  
 Acq On : 10/ 8/18 09:45

Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.499  | 96   | 57836    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 107987   | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 391665   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.168  | 164  | 223278   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.621  | 188  | 364137   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.676 | 240  | 375589   | 40.00    | ng      | 0.01     |
| 103) Perylene-d12              | 14.284 | 264  | 282895   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 686151   | 209.83   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 209.83% |          |
| 16) Phenol-d5                  | 5.438  | 99   | 1003472  | 202.71   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 202.71% |          |
| 32) Nitrobenzene-d5            | 6.202  | 128  | 129743   | 113.42   | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 226.84% |          |
| 55) 2-Fluorobiphenyl           | 7.585  | 172  | 776705   | 107.25   | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 214.50% |          |
| 80) 2,4,6-Tribromophenol       | 8.910  | 330  | 155355   | 193.58   | ng      | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 193.58% |          |
| 94) Terphenyl-d14              | 11.421 | 244  | 676261   | 103.80   | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 207.60% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.526  | 88   | 301356   | 190.0860 | ng      | 88       |
| 9) Pyridine                    | 2.970  | 79   | 812292   | 190.4128 | ng      | 76       |
| 10) N-Nitrosodimethylamine     | 2.922  | 74   | 463358   | 192.6811 | ng      | 82       |
| 12) Benzaldehyde               | 5.368  | 77   | 251964   | 110.2160 | ng      | 80       |
| 13) Aniline                    | 5.464  | 93   | 1016059  | 175.2963 | ng      | 46       |
| 14) Pentachloroethane          | 5.502  | 117  | 246112   | 187.0716 | ng      | 79       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 760049   | 176.5091 | ng      | 85       |
| 17) Phenol                     | 5.454  | 94   | 1079250  | 186.8019 | ng      | 90       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 758801   | 181.2169 | ng      | 82       |
| 19) N-Decane                   | 5.598  | 57   | 820629   | 177.0129 | ng      | 88       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 800163   | 168.4884 | ng      | 97       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 820701   | 188.6629 | ng      | 98       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 764628   | 184.4184 | ng      | 97       |
| 24) Benzyl alcohol             | 5.865  | 108  | 497509   | 201.3154 | ng      | 73       |
| 25) bis(2-chloroisopropyl)...  | 5.972  | 45   | 1050288  | 186.7873 | ng      | 98       |
| 26) 2-Methylphenol             | 5.956  | 108  | 687289   | 186.3838 | ng      | 98       |
| 27) Acetophenone               | 6.079  | 105  | 860037   | 167.4277 | ng      | 75       |
| 28) Hexachloroethane           | 6.154  | 117  | 316247   | 192.9028 | ng      | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.079  | 70   | 443115   | 158.4454 | ng      | 69       |
| 30) 3&4-Methylphenol           | 6.084  | 108  | 587122   | 156.4607 | ng      | 99       |
| 33) Nitrobenzene               | 6.218  | 77   | 781628   | 185.3130 | ng      | 81       |
| 34) Isophorone                 | 6.405  | 82   | 1377435  | 190.9595 | ng      | 89       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 396443   | 206.3637 | ng      | 88       |
| 36) 2,4-Dimethylphenol         | 6.495  | 107  | 745552   | 181.0444 | ng      | 95       |
| 37) Benzoic Acid               | 6.645  | 105  | 738904   | 218.8518 | ng      | 88       |
| 38) bis(2-Chloroethoxy)met...  | 6.565  | 93   | 880807   | 205.1229 | ng      | 97       |
| 39) 2,4-Dichlorophenol         | 6.650  | 162  | 587681   | 187.7534 | ng      | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 627238   | 177.3203 | ng      | 98       |
| 41) Naphthalene                | 6.773  | 128  | 2056610  | 174.1424 | ng      | 99       |
| 42) 4-Chloroaniline            | 6.811  | 127  | 576724   | 170.1461 | ng      | 93       |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 333739   | 158.8523 | ng      | 96       |
| 44) Caprolactam                | 7.131  | 113  | 246400   | 194.8694 | ng      | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.179  | 107  | 622994   | 187.3772 | ng      | 83       |
| 46) 2-Methylnaphthalene        | 7.302  | 142  | 1356349  | 174.7593 | ng      | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 1330528  | 174.5629 | ng      | 93       |
| 48) Methylnaphthalenes (To...  | 7.302  | 142  | 2665562m | 347.4526 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.671  | 154  | 1598438  | 170.7864 | ng      | 97       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 625799   | 195.3780 | ng      | 98       |
| 52) Hexachlorocyclopentadiene  | 7.420  | 237  | 302010   | 166.5948 | ng      | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 395369   | 177.2727 | ng      | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.559  | 196  | 436779   | 199.0900 | ng      | 98       |
| 56) 2-Chloronaphthalene        | 7.697  | 162  | 1254647  | 189.9035 | ng      | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.975  | 156  | 911075   | 171.6052 | ng      | 91       |
| 58) Dimethylnaphthalenes (...) | 7.975  | 156  | 911075   | 171.6052 | ng      | 91       |
| 59) Diphenyl Ether             | 7.751  | 170  | 830978   | 175.8677 | ng      | 87       |
| 60) 2-Nitroaniline             | 7.778  | 65   | 504139   | 175.7140 | ng      | 63       |
| 61) Coumarin                   | 7.975  | 146  | 433427   | 166.6519 | ng      | 55       |
| 62) Acenaphthylene             | 8.050  | 152  | 1915253  | 193.5486 | ng      | 99       |
| 63) Dimethylphthalate          | 7.927  | 163  | 1454338  | 186.3082 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 7.986  | 165  | 316199   | 186.3518 | ng      | 62       |
| 65) Acenaphthene               | 8.200  | 153  | 1256681  | 184.6074 | ng      | 97       |

SampleID : CAL BNA@196PPM

Operator : AH/JB

Qt Meth : 5M\_1008.M

Data File: 5M105689.D

Sam Mult : 1 Vial# : 4

Qt On : 10/08/18 12:05

Acq On : 10/ 8/18 09:45

Misc : A,BNA

Qt Upd On: 10/08/18 12:04

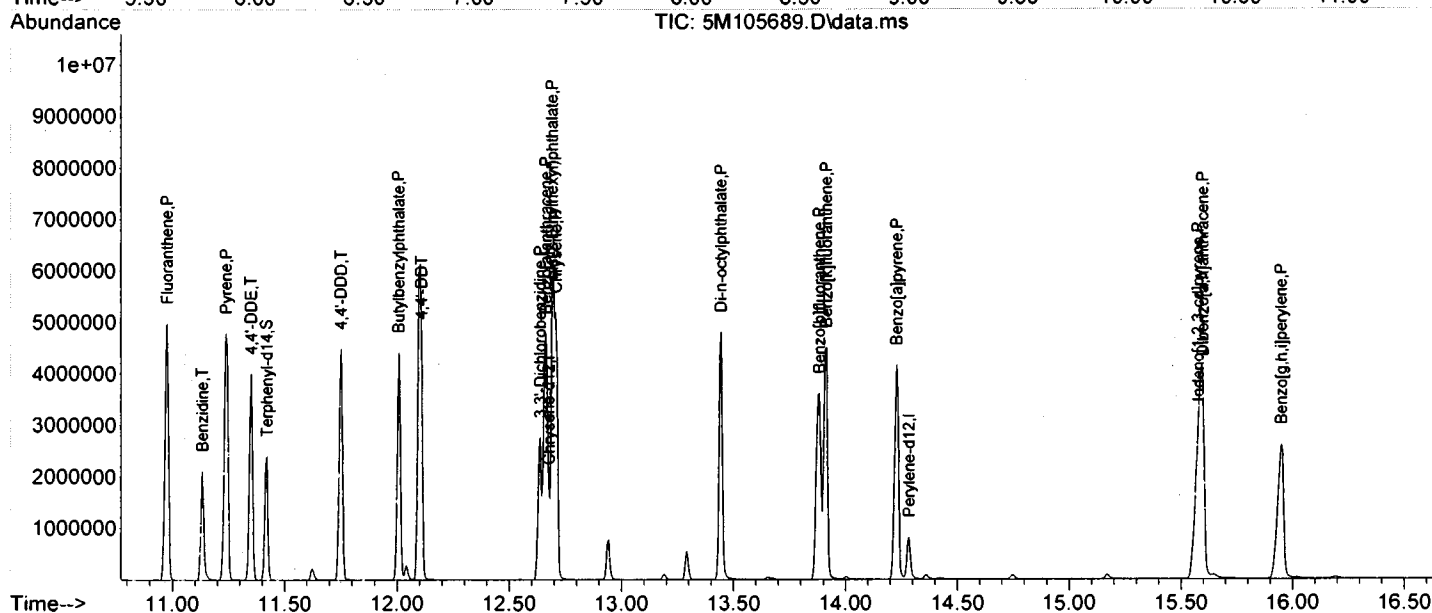
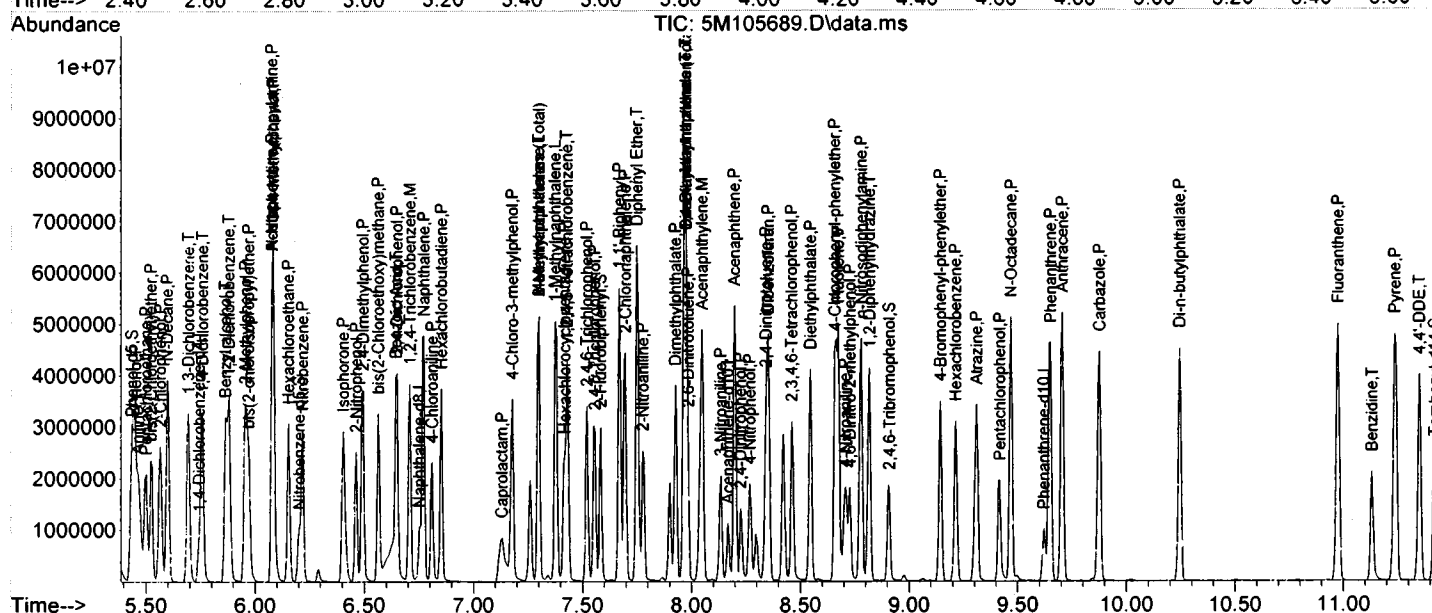
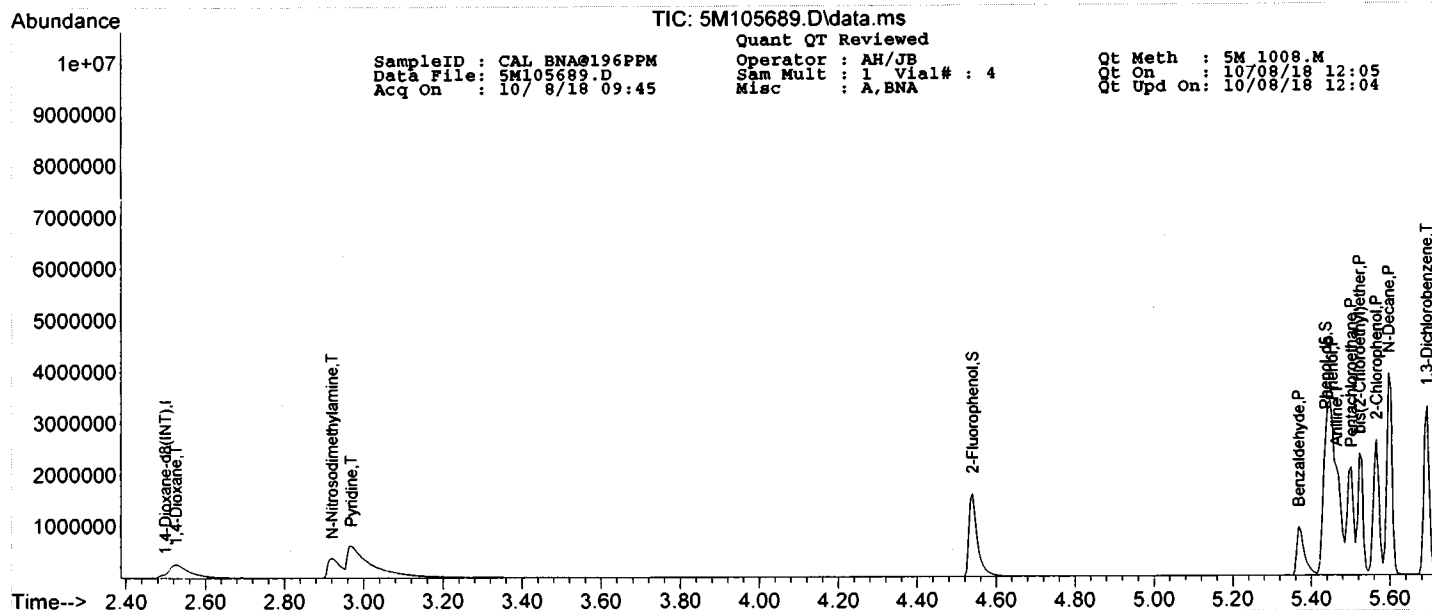
Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\

Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\

Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.136  | 138  | 310797   | 186.0927 | ng    | 75       |
| 67)  | 2,4-Dinitrophenol         | 8.226  | 184  | 182628   | 163.5045 | ng    | 52       |
| 68)  | Dibenzofuran              | 8.355  | 168  | 1767362  | 176.9744 | ng    | 91       |
| 69)  | 2,4-Dinitrotoluene        | 8.344  | 165  | 447109   | 177.3071 | ng    | 73       |
| 70)  | 4-Nitrophenol             | 8.269  | 65   | 306824   | 166.7358 | ng    | 88       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.461  | 232  | 353405   | 185.9460 | ng    | 86       |
| 72)  | Fluorene                  | 8.675  | 166  | 1416158  | 180.0601 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.659  | 204  | 650000   | 173.7123 | ng    | 90       |
| 74)  | Diethylphthalate          | 8.547  | 149  | 1442445  | 186.4706 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.707  | 138  | 423427   | 186.6770 | ng    | 80       |
| 76)  | Atrazine                  | 9.311  | 200  | 438861   | 199.9017 | ng    | 98       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.729  | 198  | 244327   | 182.9750 | ng    | 58       |
| 79)  | n-Nitrosodiphenylamine    | 8.782  | 169  | 1243082  | 200.8135 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.819  | 77   | 1773120  | 215.4133 | ng    | 86       |
| 82)  | 4-Bromophenyl-phenylether | 9.145  | 248  | 371817   | 177.7490 | ng    | 91       |
| 83)  | Hexachlorobenzene         | 9.215  | 284  | 345346   | 165.5683 | ng    | 81       |
| 84)  | N-Octadecane              | 9.471  | 57   | 968954   | 205.6645 | ng    | 79       |
| 85)  | Pentachlorophenol         | 9.418  | 266  | 210848   | 163.9390 | ng    | 98       |
| 86)  | Phenanthrene              | 9.653  | 178  | 1994974  | 185.3249 | ng    | 99       |
| 87)  | Anthracene                | 9.706  | 178  | 2085999  | 191.8359 | ng    | 98       |
| 88)  | Carbazole                 | 9.877  | 167  | 1986937  | 201.4004 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.246 | 149  | 2417419  | 183.3695 | ng    | 98       |
| 90)  | Fluoranthene              | 10.978 | 202  | 2211088  | 186.9728 | ng    | 98       |
| 92)  | Pyrene                    | 11.239 | 202  | 2285147  | 197.1212 | ng    | 95       |
| 93)  | Benzidine                 | 11.133 | 184  | 777338   | 203.3171 | ng    | 88       |
| 95)  | 4,4'-DDE                  | 11.352 | 246  | 469093   | 201.6977 | ng    | 92       |
| 96)  | 4,4'-DDD                  | 11.752 | 235  | 802687   | 222.3887 | ng    | 89       |
| 97)  | Butylbenzylphthalate      | 12.009 | 149  | 1085829  | 185.7034 | ng    | 79       |
| 98)  | 4,4'-DDT                  | 12.110 | 235  | 653416   | 213.1345 | ng    | 91       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.639 | 252  | 550528   | 194.0201 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.666 | 228  | 2170315  | 193.7803 | ng    | 98       |
| 101) | Chrysene                  | 12.709 | 228  | 1957035  | 182.0861 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.692 | 149  | 1478096  | 178.6132 | ng    | 97       |
| 104) | Di-n-octylphthalate       | 13.446 | 149  | 2521801  | 208.9043 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.884 | 252  | 1945134  | 221.7068 | ng    | 96       |
| 106) | Benzo[k]fluoranthene      | 13.916 | 252  | 1905992m | 219.8810 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.231 | 252  | 1862637  | 223.0114 | ng    | 95       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.577 | 276  | 2035149  | 215.9841 | ng    | 98       |
| 109) | Dibenzo[a,h]anthracene    | 15.599 | 278  | 1733736  | 217.2782 | ng    | 92       |
| 110) | Benzo[g,h,i]perylene      | 15.951 | 276  | 1728444  | 216.6325 | ng    | 81       |

(#)=qualifier out of range (m)=manual integration (+)=signals summed





SampleID : CAL BNA@.5PPM  
Data File: 5M105694.D  
Acq On : 10/ 8/18 11:49

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 5M 1000  
Qt On : 10/08/18 12:05  
Qt Upd On: 10/08/18 12:04

8101509 0342

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |        |
|--------------------------------|--------|------|----------|--------|-------|----------|--------|
| -----                          |        |      |          |        |       |          |        |
| Internal Standards             |        |      |          |        |       |          |        |
| 7) 1,4-Dioxane-d8 (INT)        | 2.499  | 96   | 57656    | 40.00  | ng    | 0.00     |        |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 108772   | 40.00  | ng    | 0.00     |        |
| 31) Naphthalene-d8             | 6.747  | 136  | 398826   | 40.00  | ng    | 0.00     |        |
| 50) Acenaphthene-d10           | 8.162  | 164  | 234276   | 40.00  | ng    | 0.00     |        |
| 77) Phenanthrene-d10           | 9.615  | 188  | 407895   | 40.00  | ng    | 0.00     |        |
| 91) Chrysene-d12               | 12.660 | 240  | 351887   | 40.00  | ng    | 0.00     |        |
| 103) Perylene-d12              | 14.274 | 264  | 294290   | 40.00  | ng    | 0.00     |        |
| System Monitoring Compounds    |        |      |          |        |       |          |        |
| 11) 2-Fluorophenol             | 0.000  | 112  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 16) Phenol-d5                  | 0.000  | 99   | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 32) Nitrobenzene-d5            | 0.000  | 128  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| 55) 2-Fluorobiphenyl           | 0.000  | 172  | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| 80) 2,4,6-Tribromophenol       | 0.000  | 330  | 0        | 0.00   | ng    |          |        |
| Spiked Amount 100.000          |        |      | Recovery | =      | 0.00% |          |        |
| 94) Terphenyl-d14              | 0.000  | 244  | 0d       | 0.00   | ng    |          |        |
| Spiked Amount 50.000           |        |      | Recovery | =      | 0.00% |          |        |
| Target Compounds               |        |      |          |        |       |          |        |
| 8) 1,4-Dioxane                 | 2.558  | 88   | 555m     | 0.4072 | ng    |          | Qvalue |
| 9) Pyridine                    | 0.000  |      | 0        | N.D.   |       |          |        |
| 10) N-Nitrosodimethylamine     | 0.000  |      | 0        | N.D.   |       |          |        |
| 12) Benzaldehyde               | 0.000  |      | 0        | N.D.   |       |          |        |
| 13) Aniline                    | 5.512  | 93   | 927m     | 0.1728 | ng    |          |        |
| 14) Pentachloroethane          | 0.000  |      | 0        | N.D. d |       |          |        |
| 15) bis(2-Chloroethyl)ether    | 5.550  | 93   | 1882     | 0.4896 | ng    | 67       |        |
| 17) Phenol                     | 0.000  |      | 0        | N.D. d |       |          |        |
| 18) 2-Chlorophenol             | 0.000  |      | 0        | N.D. d |       |          |        |
| 19) N-Decane                   | 0.000  |      | 0        | N.D. d |       |          |        |
| 20) 1,3-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 22) 1,4-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 23) 1,2-Dichlorobenzene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 24) Benzyl alcohol             | 0.000  |      | 0        | N.D. d |       |          |        |
| 25) bis(2-chloroisopropyl)...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 26) 2-Methylphenol             | 5.972  | 108  | 1487m    | 0.4003 | ng    |          |        |
| 27) Acetophenone               | 0.000  |      | 0        | N.D. d |       |          |        |
| 28) Hexachloroethane           | 0.000  |      | 0        | N.D. d |       |          |        |
| 29) N-Nitroso-di-n-propyla...  | 6.079  | 70   | 954      | 0.3387 | ng    | 70       |        |
| 30) 3&4-Methylphenol           | 6.121  | 108  | 927      | 0.2453 | ng    | 69       |        |
| 33) Nitrobenzene               | 0.000  |      | 0        | N.D. d |       |          |        |
| 34) Isophorone                 | 0.000  |      | 0        | N.D. d |       |          |        |
| 35) 2-Nitrophenol              | 0.000  |      | 0        | N.D.   |       |          |        |
| 36) 2,4-Dimethylphenol         | 6.501  | 107  | 1215     | 0.2897 | ng    | 73       |        |
| 37) Benzoic Acid               | 0.000  |      | 0        | N.D. d |       |          |        |
| 38) bis(2-Chloroethoxy)met...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 39) 2,4-Dichlorophenol         | 6.677  | 162  | 703m     | 0.2206 | ng    |          |        |
| 40) 1,2,4-Trichlorobenzene     | 0.000  |      | 0        | N.D. d |       |          |        |
| 41) Naphthalene                | 6.768  | 128  | 5713     | 0.5453 | ng    | 97       |        |
| 42) 4-Chloroaniline            | 6.837  | 127  | 1029     | 0.2182 | ng    | 68       |        |
| 43) Hexachlorobutadiene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 44) Caprolactam                | 0.000  |      | 0        | N.D.   |       |          |        |
| 45) 4-Chloro-3-methylphenol    | 0.000  |      | 0        | N.D. d |       |          |        |
| 46) 2-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 47) 1-Methylnaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 48) Methylnaphthalenes (To...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 49) 1,1'-Biphenyl              | 0.000  |      | 0        | N.D. d |       |          |        |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000  |      | 0        | N.D. d |       |          |        |
| 52) Hexachlorocyclopentadiene  | 0.000  |      | 0        | N.D.   |       |          |        |
| 53) 2,4,6-Trichlorophenol      | 0.000  |      | 0        | N.D.   |       |          |        |
| 54) 2,4,5-Trichlorophenol      | 0.000  |      | 0        | N.D.   |       |          |        |
| 56) 2-Chloronaphthalene        | 0.000  |      | 0        | N.D. d |       |          |        |
| 57) 1,4-Dimethylnaphthalene    | 0.000  |      | 0        | N.D. d |       |          |        |
| 58) Dimethylnaphthalenes (...) | 0.000  |      | 0        | N.D. d |       |          |        |
| 59) Diphenyl Ether             | 0.000  |      | 0        | N.D. d |       |          |        |
| 60) 2-Nitroaniline             | 0.000  |      | 0        | N.D.   |       |          |        |
| 61) Coumarin                   | 0.000  |      | 0        | N.D. d |       |          |        |
| 62) Acenaphthylene             | 0.000  |      | 0        | N.D. d |       |          |        |
| 63) Dimethylphthalate          | 0.000  |      | 0        | N.D. d |       |          |        |
| 64) 2,6-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |        |
| 65) Acenaphthene               | 0.000  |      | 0        | N.D. d |       |          |        |

SampleID : CAL BNA@.5PPM  
 Data File: 5M105694.D  
 Acq On : 10/ 8/18 11:49

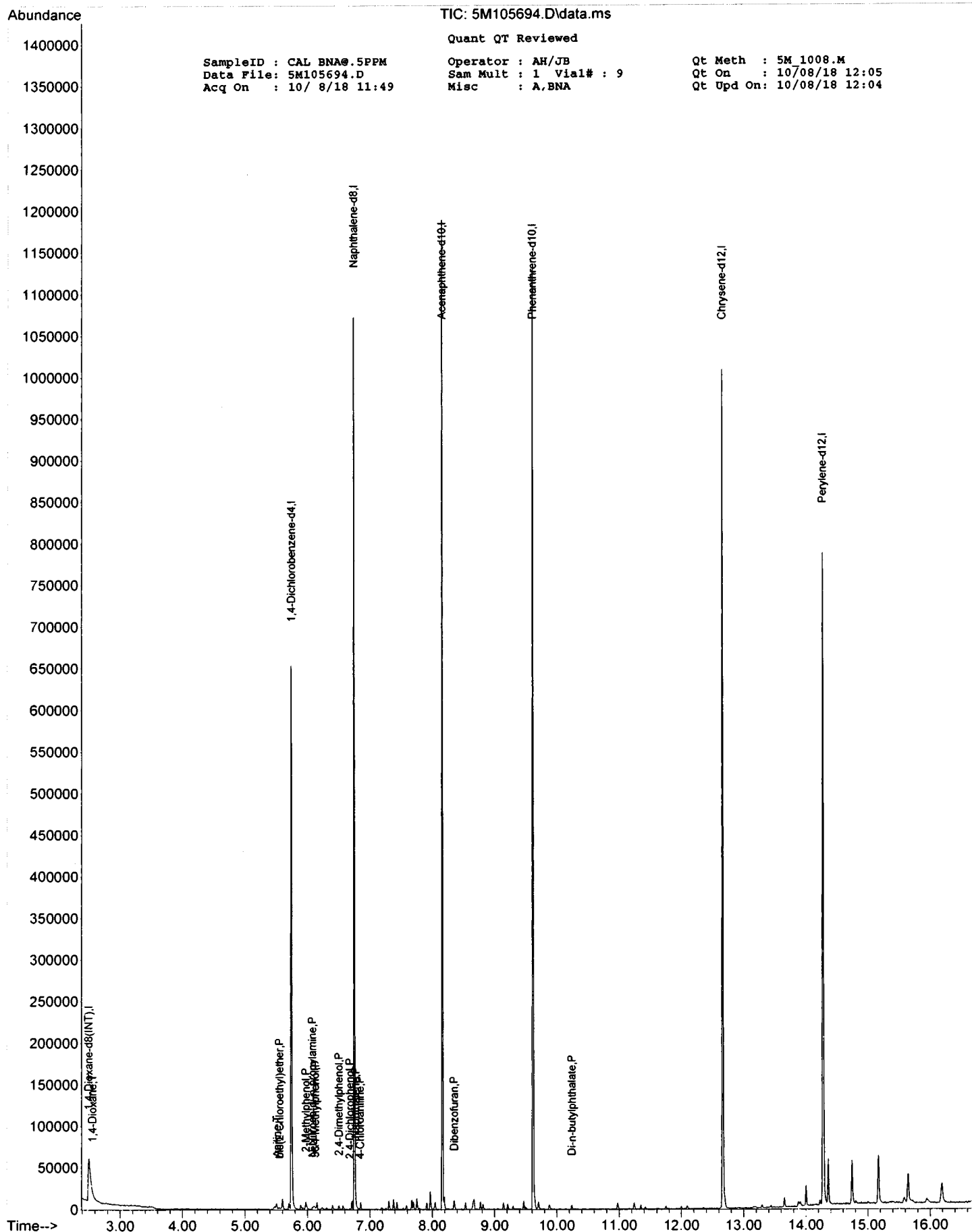
Operator : AH/JB  
 Sam Mult : 1 Vial# : 9  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/08/18 12:05  
 Qt Upd On: 10/08/18 12:04

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |      | 0        | N.D.   |       |          |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.349  | 168  | 4570     | 0.4948 | ng    | 95       |
| 69) 2,4-Dinitrotoluene         | 0.000  |      | 0        | N.D. d |       |          |
| 70) 4-Nitrophenol              | 0.000  |      | 0        | N.D. d |       |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |      | 0        | N.D.   |       |          |
| 72) Fluorene                   | 0.000  |      | 0        | N.D. d |       |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |      | 0        | N.D. d |       |          |
| 74) Diethylphthalate           | 0.000  |      | 0        | N.D. d |       |          |
| 75) 4-Nitroaniline             | 0.000  |      | 0        | N.D.   |       |          |
| 76) Atrazine                   | 0.000  |      | 0        | N.D. d |       |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |      | 0        | N.D. d |       |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |      | 0        | N.D. d |       |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |      | 0        | N.D. d |       |          |
| 83) Hexachlorobenzene          | 0.000  |      | 0        | N.D. d |       |          |
| 84) N-Octadecane               | 0.000  |      | 0        | N.D. d |       |          |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 86) Phenanthrene               | 0.000  |      | 0        | N.D. d |       |          |
| 87) Anthracene                 | 0.000  |      | 0        | N.D. d |       |          |
| 88) Carbazole                  | 0.000  |      | 0        | N.D. d |       |          |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 2837     | 0.2359 | ng    | 91       |
| 90) Fluoranthene               | 0.000  |      | 0        | N.D. d |       |          |
| 92) Pyrene                     | 0.000  |      | 0        | N.D. d |       |          |
| 93) Benzidine                  | 0.000  |      | 0        | N.D.   |       |          |
| 95) 4,4'-DDE                   | 0.000  |      | 0        | N.D. d |       |          |
| 96) 4,4'-DDD                   | 0.000  |      | 0        | N.D. d |       |          |
| 97) Butylbenzylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 98) 4,4'-DDT                   | 0.000  |      | 0        | N.D.   |       |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |      | 0        | N.D. d |       |          |
| 100) Benzo[a]anthracene        | 0.000  |      | 0        | N.D. d |       |          |
| 101) Chrysene                  | 0.000  |      | 0        | N.D. d |       |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |      | 0        | N.D. d |       |          |
| 104) Di-n-octylphthalate       | 0.000  |      | 0        | N.D. d |       |          |
| 105) Benzo[b]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 106) Benzo[k]fluoranthene      | 0.000  |      | 0        | N.D. d |       |          |
| 107) Benzo[a]pyrene            | 0.000  |      | 0        | N.D. d |       |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |      | 0        | N.D. d |       |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |      | 0        | N.D. d |       |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |      | 0        | N.D. d |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



| Level #:                   |           | Data File: |            | Cal Identifier: |        | Analysis Date/Time |           | Level #: |            | Data File: |        | Cal Identifier: |           | Analysis Date/Time |            |          |       |       |       |       |       |       |       |       |       |       |      |
|----------------------------|-----------|------------|------------|-----------------|--------|--------------------|-----------|----------|------------|------------|--------|-----------------|-----------|--------------------|------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1                          | 9M88309.D | CAL        | BNA@50PPM  | 10/08/18        | 13:26  | 2                  | 9M88302.D | CAL      | BNA@2PPM   | 10/08/18   | 10:42  | 3               | 9M88307.D | CAL                | BNA@20PPM  | 10/08/18 | 12:38 |       |       |       |       |       |       |       |       |       |      |
| 3                          | 9M88301.D | CAL        | BNA@10PPM  | 10/08/18        | 10:20  | 4                  | 9M88307.D | CAL      | BNA@20PPM  | 10/08/18   | 11:52  | 5               | 9M88306.D | CAL                | BNA@80PPM  | 10/08/18 | 11:29 |       |       |       |       |       |       |       |       |       |      |
| 5                          | 9M88306.D | CAL        | BNA@80PPM  | 10/08/18        | 12:15  | 6                  | 9M88305.D | CAL      | BNA@120PPM | 10/08/18   | 11:05  | 7               | 9M88304.D | CAL                | BNA@160PPM | 10/08/18 | 11:05 |       |       |       |       |       |       |       |       |       |      |
| 8                          | 9M88304.D | CAL        | BNA@160PPM | 10/08/18        | 11:29  | 8                  | 9M88303.D | CAL      | BNA@196PPM | 10/08/18   | 11:05  | 9               | 9M88308.D | CAL                | BNA@5PPM   | 10/08/18 | 13:02 |       |       |       |       |       |       |       |       |       |      |
| Compound                   |           | Col        | Mr         | Fit:            | RF1    | RF2                | RF3       | RF4      | RF5        | RF6        | RF7    | RF8             | RF9       | AVGrT              | RT         | Corr1    | Corr2 | %Rsd  | Lvl1  | Lvl2  | Lvl3  | Lvl4  | Lvl5  | Lvl6  | Lvl7  | Lvl8  | Lvl9 |
| 1,4-Dioxane                | 1         | 0          | AVG        | 0.9748          | 1.2117 | 0.8572             | 0.9560    | 0.9532   | 1.0014     | 0.9543     | 0.9636 | 0.9703          | 0.9832    | 5.08               | 0.999      | 0.999    | 9.6   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 160.0 | 196.0 | 0.50 |
| Pyridine                   | 1         | 0          | AVG        | 2.4508          | 2.8616 | 2.2303             | 2.2067    | 2.5385   | 2.6743     | 2.6013     | 2.6253 | 2.6253          | 2.52      | 3.04               | 0.999      | 0.999    | 8.8   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 160.0 | 196.0 | 0.50 |
| N-Nitrosodimethylamin      | 1         | 0          | AVG        | 1.4400          | 1.4299 | 1.2359             | 1.3483    | 1.4883   | 1.5713     | 1.5430     | 1.5246 | 1.5246          | 1.45      | 2.96               | 0.999      | 0.999    | 7.7   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 160.0 | 196.0 | 0.50 |
| 2-Fluorophenol             | 1         | 0          | AVG        | 2.2853          | 2.6384 | 1.9057             | 2.2042    | 2.3740   | 2.4546     | 2.4571     | 2.4509 | 2.4509          | 2.35      | 4.59               | 1.00       | 1.00     | 9.4   | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 160.0 | 196.0 | 0.50 |
| Benzaldehyde               | 1         | 0          | AVG        | 1.3443          | 1.5231 | 1.4567             | 1.6189    | 1.2284   | 1.0646     | 0.9356     | 0.9356 | 0.9356          | 1.31      | 5.41               | 0.973      | 0.999    | 19    | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 160.0 | 0.50 |
| Aniline                    | 1         | 0          | AVG        | 3.2196          | 2.7666 | 2.2127             | 3.2256    | 3.2861   | 3.2517     | 3.2631     | 3.3036 | 2.6338          | 3.02      | 5.51               | 1.00       | 1.00     | 13    | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Pentachloroethane          | 1         | 0          | AVG        | 0.8362          | 0.9017 | 0.7409             | 0.8148    | 0.8738   | 0.8986     | 0.8920     | 0.9030 | 0.9030          | 0.85      | 5.55               | 1.00       | 1.00     | 6.7   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| bis(2-Chloroethyl)ether    | 1         | 0          | Qua        | 2.3362          | 2.7616 | 2.0092             | 2.2355    | 2.3855   | 2.4273     | 2.4729     | 2.5180 | 2.8711          | 2.45      | 5.57               | 0.999      | 1.00     | 11    | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Phenol-d5                  | 1         | 0          | AVG        | 3.3025          | 3.6218 | 2.7492             | 3.1946    | 3.4131   | 3.5046     | 3.4947     | 3.5250 | 3.5873          | 3.38      | 5.48               | 1.00       | 1.00     | 8.0   | 0.80  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Phenol                     | 1         | 0          | AVG        | 3.2107          | 3.6167 | 2.6889             | 3.1324    | 3.3537   | 3.4666     | 3.4573     | 3.4890 | 3.4890          | 3.30      | 5.49               | 1.00       | 1.00     | 8.9   | 0.80  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2-Chlorophenol             | 1         | 0          | AVG        | 2.5358          | 2.9142 | 2.1341             | 2.4720    | 2.6294   | 2.7155     | 2.7637     | 2.7746 | 2.7746          | 2.62      | 5.61               | 0.999      | 1.00     | 9.2   | 0.80  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| N-Decane                   | 1         | 0          | AVG        | 2.8929          | 3.5725 | 2.5253             | 2.8444    | 2.9869   | 3.0343     | 2.9744     | 2.9249 | 2.9249          | 2.97      | 5.66               | 0.999      | 1.00     | 9.8   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1,3-Dichlorobenzene        | 1         | 0          | AVG        | 2.7655          | 3.2030 | 2.3146             | 2.7330    | 2.8921   | 2.9539     | 2.9979     | 3.0479 | 3.0479          | 2.86      | 5.74               | 0.999      | 1.00     | 9.4   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1,4-Dichlorobenzene        | 1         | 0          | AVG        | 1.4214          | 1.7008 | 1.2635             | 1.4309    | 1.4615   | 1.5146     | 1.5432     | 1.5885 | 1.5885          | 1.49      | 5.81               | 0.999      | 1.00     | 8.7   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1,2-Dichlorobenzene        | 1         | 0          | AVG        | 1.3450          | 1.6212 | 1.1649             | 1.3313    | 1.3689   | 1.4475     | 1.4530     | 1.4931 | 1.4931          | 1.40      | 5.93               | 0.999      | 1.00     | 9.6   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Benzyl alcohol             | 1         | 0          | AVG        | 0.8370          | 0.8545 | 0.7300             | 0.8167    | 0.8472   | 0.8858     | 0.8929     | 0.9053 | 0.9053          | 0.84      | 5.91               | 0.999      | 1.00     | 6.6   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| bis(2-chloroisopropyl)eth  | 1         | 0          | AVG        | 1.7995          | 2.1614 | 1.6312             | 1.8301    | 1.8078   | 1.8337     | 1.8095     | 1.7714 | 1.7714          | 1.83      | 6.02               | 1.00       | 1.00     | 8.1   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2-Methylphenol             | 1         | 0          | Qua        | 1.1380          | 1.2612 | 1.0294             | 1.1390    | 1.1541   | 1.2052     | 1.2159     | 1.2547 | 1.5177          | 1.21      | 6.00               | 0.999      | 1.00     | 11    | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Acetophenone               | 1         | 0          | AVG        | 1.8474          | 2.0539 | 1.5107             | 1.8309    | 1.8785   | 1.9749     | 1.9956     | 2.0610 | 2.0610          | 1.91      | 6.12               | 0.998      | 1.00     | 7.8   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Hexachloroethane           | 1         | 0          | AVG        | 0.5474          | 0.6500 | 0.4831             | 0.5496    | 0.5678   | 0.5844     | 0.5892     | 0.6040 | 0.6040          | 0.57      | 6.21               | 0.999      | 1.00     | 8.5   | 0.30  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| N-Nitroso-di-n-propylamine | 1         | 0          | AVG        | 0.9457          | 1.1639 | 0.8236             | 0.9449    | 0.9478   | 0.9693     | 0.9796     | 0.9822 | 0.9826          | 0.97      | 6.12               | 0.999      | 1.00     | 9.0   | 0.50  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 3,8,4-Methylphenol         | 1         | 0          | AVG        | 1.2358          | 1.3209 | 1.0632             | 1.1949    | 1.2660   | 1.3321     | 1.3642     | 1.4041 | 1.2955          | 1.28      | 6.12               | 0.998      | 1.00     | 8.0   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Nitrobenzene-d5            | 1         | 0          | AVG        | 0.1256          | 0.1457 | 0.1073             | 0.1280    | 0.1255   | 0.1281     | 0.1285     | 0.1300 | 0.1300          | 0.12      | 6.24               | 1.00       | 1.00     | 8.1   | 0.05  | 25.00 | 1.00  | 5.00  | 10.00 | 40.00 | 60.00 | 80.00 | 98.00 | 0.50 |
| Nitrobenzene               | 1         | 0          | AVG        | 0.3569          | 0.4118 | 0.3057             | 0.3530    | 0.3635   | 0.3656     | 0.3729     | 0.3702 | 0.3702          | 0.36      | 6.26               | 1.00       | 1.00     | 8.0   | 0.20  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Isophorone                 | 1         | 0          | AVG        | 0.6198          | 0.6881 | 0.5440             | 0.6199    | 0.6286   | 0.6431     | 0.6470     | 0.6497 | 0.6497          | 0.63      | 6.44               | 1.00       | 1.00     | 6.5   | 0.40  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2-Nitrophenol              | 1         | 0          | AVG        | 0.1948          | 0.2086 | 0.1652             | 0.1888    | 0.1966   | 0.2038     | 0.2109     | 0.2101 | 0.2101          | 0.19      | 6.51               | 0.998      | 1.00     | 7.7   | 0.10  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2,4-Dimethylphenol         | 1         | 0          | Qua        | 0.3513          | 0.3969 | 0.2951             | 0.3472    | 0.3532   | 0.3630     | 0.3674     | 0.3700 | 0.3618          | 0.35      | 6.54               | 1.00       | 1.00     | 7.6   | 0.20  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Benzoic Acid               | 1         | 0          | Qua        | 0.3746          | 0.0823 | 0.2359             | 0.3101    | 0.4157   | 0.4424     | 0.4535     | 0.4520 | 0.4520          | 0.36      | 6.62               | 0.999      | 0.999    | 38    | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| bis(2-Chloroethoxy)meth    | 1         | 0          | AVG        | 0.3858          | 0.4296 | 0.3215             | 0.3821    | 0.3913   | 0.3943     | 0.4023     | 0.4042 | 0.4042          | 0.38      | 6.61               | 1.00       | 1.00     | 8.0   | 0.30  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2,4-Dichlorophenol         | 1         | 0          | AVG        | 0.2929          | 0.3147 | 0.2512             | 0.2883    | 0.2982   | 0.3074     | 0.3194     | 0.3280 | 0.2464          | 0.29      | 6.70               | 0.998      | 1.00     | 9.7   | 0.20  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1,2,4-Trichlorobenzene     | 1         | 0          | AVG        | 0.3141          | 0.3609 | 0.2667             | 0.3098    | 0.3238   | 0.3354     | 0.3461     | 0.3521 | 0.3521          | 0.32      | 6.76               | 0.999      | 1.00     | 9.2   | 0.05  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Napthalene                 | 1         | 0          | Qua        | 0.9841          | 1.1457 | 0.8555             | 0.9673    | 1.0176   | 1.0469     | 1.0752     | 1.1021 | 1.1871          | 1.04      | 6.82               | 0.999      | 1.00     | 9.6   | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 4-Chloroaniline            | 1         | 0          | Qua        | 0.3924          | 0.3446 | 0.2802             | 0.3852    | 0.3933   | 0.3734     | 0.3451     | 0.3264 | 0.3264          | 0.35      | 6.85               | 0.995      | 0.999    | 11    | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Hexachlorobutadiene        | 1         | 0          | Qua        | 0.1847          | 0.2292 | 0.1562             | 0.1818    | 0.1926   | 0.1963     | 0.2055     | 0.2068 | 0.2068          | 0.19      | 6.91               | 0.999      | 1.00     | 11    | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Caprolactam                | 1         | 0          | AVG        | 0.1113          | 0.1238 | 0.0936             | 0.1111    | 0.1165   | 0.1189     | 0.1197     | 0.1177 | 0.1177          | 0.11      | 7.13               | 1.00       | 1.00     | 8.1   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 4-Chloro-3-methylphenol    | 1         | 0          | AVG        | 0.2966          | 0.3444 | 0.2530             | 0.2955    | 0.3016   | 0.3074     | 0.3116     | 0.3179 | 0.3179          | 0.30      | 7.22               | 0.999      | 1.00     | 8.5   | 0.20  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 2-Methylnaphthalene        | 1         | 0          | AVG        | 0.7013          | 0.7908 | 0.6042             | 0.6874    | 0.7230   | 0.7457     | 0.7673     | 0.7914 | 0.7914          | 0.72      | 7.35               | 0.998      | 1.00     | 8.6   | 0.40  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1-Methylnaphthalene        | 1         | 0          | AVG        | 0.6774          | 0.7698 | 0.5728             | 0.6550    | 0.6981   | 0.7232     | 0.7442     | 0.7618 | 0.7618          | 0.70      | 7.43               | 0.999      | 1.00     | 9.3   | 0.40  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| Methylnaphthalenes (1      | 1         | 0          | AVG        | 0.6893          | 0.7812 | 0.5885             | 0.6702    | 0.7113   | 0.7348     | 0.7555     | 0.7770 | 0.7770          | 0.71      | 7.35               | 0.999      | 1.00     | 9.0   | 0.05  | 100.0 | 4.00  | 20.00 | 40.00 | 160.0 | 240.0 | 320.0 | 392.0 | 0.50 |
| 1,1'-Bi(phenyl)            | 1         | 0          | AVG        | 0.8139          | 0.9300 | 0.6933             | 0.7969    | 0.8597   | 0.8831     | 0.9159     | 0.9478 | 0.9478          | 0.85      | 7.73               | 0.998      | 1.00     | 9.9   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 | 0.50 |
| 1,2,4,5-Tetrachloroben     | 1         | 0          | AVG        | 0.5542          | 0.6436 | 0.4828             | 0.5659    | 0.5924</ |            |            |        |                 |           |                    |            |          |       |       |       |       |       |       |       |       |       |       |      |

| Level #:                   | Data File: | Cal Identifier: | Analysis Date/Time |        |        |        |        | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------|------------|-----------------|--------------------|--------|--------|--------|--------|----------|------------|-----------------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                            |            |                 | RF1                | RF2    | RF3    | RF4    | RF5    |          |            |                 | RF6                | RF7            | RF8   | RF9   | AvgRt | RT    | Corr1 | Corr2 | %Rsd  | Lvl1  | Lvl2  | Lvl3  | Lvl4  | Lvl5  | Lvl6  | Lvl7  |
| 1                          | 9M88309.D  | CAL BNA@50PPM   | 10/08/18 13:26     |        |        |        |        |          | 2          | 9M88302.D       | CAL BNA@2PPM       | 10/08/18 10:42 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 3                          | 9M88301.D  | CAL BNA@10PPM   | 10/08/18 10:20     |        |        |        |        |          | 4          | 9M88307.D       | CAL BNA@20PPM      | 10/08/18 12:38 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 5                          | 9M88306.D  | CAL BNA@80PPM   | 10/08/18 12:15     |        |        |        |        |          | 6          | 9M88305.D       | CAL BNA@120PPM     | 10/08/18 11:52 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 7                          | 9M88304.D  | CAL BNA@160PPM  | 10/08/18 11:29     |        |        |        |        |          | 8          | 9M88303.D       | CAL BNA@196PPM     | 10/08/18 11:05 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 9                          | 9M88308.D  | CAL BNA@5PPM    | 10/08/18 13:02     |        |        |        |        |          |            |                 |                    |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Compound                   | Col        | Mr              | Fit:               | RF1    | RF2    | RF3    | RF4    | RF5      | RF6        | RF7             | RF8                | RF9            | AvgRt | RT    | Corr1 | Corr2 | %Rsd  | Lvl1  | Lvl2  | Lvl3  | Lvl4  | Lvl5  | Lvl6  | Lvl7  | Lvl8  | Lvl9  |
| Hexachlorocyclopenta       | 1          | 0               | Qua                | 0.2037 | 0.0456 | 0.0990 | 0.1551 | 0.2420   | 0.2682     | 0.2867          | 0.2946             | 0.1997         | 7.48  | 0.985 | 0.998 | 46    | 0.05  | a     | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,4,6-Trichlorophenol      | 1          | 0               | Avg                | 0.3463 | 0.3870 | 0.3025 | 0.3523 | 0.3649   | 0.3781     | 0.3911          | 0.3974             | 0.3657         | 7.58  | 0.999 | 1.00  | 8.5   | 0.20  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,4,5-Trichlorophenol      | 1          | 0               | Avg                | 0.3762 | 0.4177 | 0.3195 | 0.3785 | 0.3895   | 0.4046     | 0.4205          | 0.4204             | 0.3917         | 7.61  | 0.998 | 1.00  | 8.7   | 0.20  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2-Fluorobiphenyl           | 1          | 0               | Avg                | 1.2177 | 1.4608 | 1.1224 | 1.2455 | 1.2807   | 1.2974     | 1.3373          | 1.3636             | 1.2977         | 6.4   | 0.998 | 1.00  | 7.9   |       |       | 25.00 | 1.00  | 5.00  | 10.00 | 40.00 | 60.00 | 80.00 | 98.00 |
| 2-Chloronaphthalene        | 1          | 0               | Avg                | 1.0412 | 1.2579 | 0.9341 | 1.0727 | 1.1144   | 1.1440     | 1.1830          | 1.2190             | 1.1277         | 7.5   | 0.997 | 1.00  | 9.3   | 0.80  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 1,4-Dimethylnaphthalene    | 1          | 0               | Avg                | 0.9011 | 1.0270 | 0.7873 | 0.9256 | 0.9659   | 1.0228     | 1.0589          | 1.1048             | 0.9748         | 8.03  | 0.995 | 1.00  | 10    |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Dimethylbiphenyls          | 1          | 0               | Avg                | 0.9011 | 1.0270 | 0.7873 | 0.9256 | 0.9659   | 1.0228     | 1.0589          | 1.1048             | 0.9748         | 8.03  | 0.995 | 1.00  | 10    |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Dibenzyl Ether             | 1          | 0               | Avg                | 0.7980 | 0.9593 | 0.6844 | 0.8148 | 0.8468   | 0.8840     | 0.9146          | 0.9530             | 0.8577         | 7.81  | 0.997 | 1.00  | 11    |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2-Nitroaniline             | 1          | 0               | Avg                | 0.3994 | 0.4293 | 0.3527 | 0.4166 | 0.4176   | 0.4186     | 0.4195          | 0.4123             | 0.4087         | 7.83  | 0.999 | 0.999 | 5.9   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Coumarin                   | 1          | 0               | Avg                | 0.4148 | 0.5039 | 0.3755 | 0.4202 | 0.4373   | 0.4582     | 0.4699          | 0.4877             | 0.4468         | 8.01  | 0.998 | 1.00  | 9.5   |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Acenaphthylene             | 1          | 0               | Avg                | 1.5371 | 1.7940 | 1.3521 | 1.5611 | 1.6197   | 1.6825     | 1.7212          | 1.7688             | 1.6381         | 11    | 0.997 | 1.00  | 8.9   | 0.90  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Dimethylphthalate          | 1          | 0               | Avg                | 1.2271 | 1.4071 | 1.0828 | 1.2551 | 1.2852   | 1.3272     | 1.3544          | 1.3848             | 1.2979         | 7.97  | 0.999 | 1.00  | 8.1   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,6-Dinitrotoluene         | 1          | 0               | Avg                | 0.2895 | 0.3289 | 0.2496 | 0.2927 | 0.3130   | 0.3298     | 0.3409          | 0.3540             | 0.3128         | 8.03  | 0.997 | 1.00  | 11    | 0.20  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Acenaphthene               | 1          | 0               | Avg                | 1.0827 | 1.2681 | 0.9368 | 1.0832 | 1.1530   | 1.1863     | 1.2147          | 1.2558             | 1.1588         | 8.26  | 0.998 | 1.00  | 9.6   | 0.90  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 3-Nitroaniline             | 1          | 0               | Qua                | 0.2997 | 0.3313 | 0.2440 | 0.3054 | 0.2947   | 0.2777     | 0.2687          | 0.2610             | 0.2858         | 8.18  | 0.997 | 1.00  | 9.8   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,4-Dinitrophenol          | 1          | 0               | Qua                | 0.1582 | 0.0954 | 0.1289 | 0.1844 | 0.1983   | 0.2082     | 0.2154          | 0.1708             | 8.27           | 0.996 | 1.00  | 26    | 0.01  |       | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| Dibenzofuran               | 1          | 0               | Qua                | 1.5318 | 1.6969 | 1.3132 | 1.5528 | 1.6078   | 1.6618     | 1.7209          | 1.7612             | 1.6384         | 12    | 0.998 | 1.00  | 9.2   | 0.80  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,4-Dinitrotoluene         | 1          | 0               | Qua                | 0.3848 | 0.4258 | 0.3247 | 0.3874 | 0.4136   | 0.4175     | 0.4296          | 0.4372             | 0.4038         | 8.39  | 0.999 | 1.00  | 9.1   | 0.20  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4-Nitrophenol              | 1          | 0               | Qua                | 0.2265 | 0.1957 | 0.1956 | 0.2315 | 0.2443   | 0.2460     | 0.2476          | 0.2505             | 0.2308         | 8.32  | 1.00  | 1.00  | 9.8   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,3,4,6-Tetrachlorophenol  | 1          | 0               | Avg                | 0.3307 | 0.3454 | 0.2824 | 0.3160 | 0.3418   | 0.3532     | 0.3697          | 0.3859             | 0.3418         | 8.52  | 0.997 | 1.00  | 9.4   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Fluorene                   | 1          | 0               | Avg                | 1.2908 | 1.4274 | 1.0794 | 1.2669 | 1.3452   | 1.4117     | 1.4590          | 1.5036             | 1.3587         | 8.74  | 0.998 | 1.00  | 10    | 0.90  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4-Chlorophenyl-phenyl      | 1          | 0               | Qua                | 0.6247 | 0.7061 | 0.5327 | 0.6362 | 0.6510   | 0.6906     | 0.7092          | 0.7371             | 0.6618         | 8.73  | 0.996 | 1.00  | 9.8   | 0.40  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Diethylphthalate           | 1          | 0               | Avg                | 1.2405 | 1.4815 | 1.0707 | 1.2487 | 1.2744   | 1.3294     | 1.3496          | 1.3777             | 1.3086         | 11    | 0.999 | 1.00  | 9.3   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4-Nitroaniline             | 1          | 0               | Qua                | 0.3480 | 0.3884 | 0.2922 | 0.3487 | 0.3600   | 0.3745     | 0.3753          | 0.3813             | 0.3598         | 8.74  | 0.999 | 1.00  | 8.5   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Atrazine                   | 1          | 0               | Qua                | 0.4087 | 0.4734 | 0.3630 | 0.4299 | 0.4268   | 0.4366     | 0.4498          | 0.4553             | 0.4309         | 9.37  | 0.998 | 1.00  | 7.8   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4,6-Dinitro-2-methylphenol | 1          | 0               | Qua                | 0.1251 | 0.0868 | 0.1178 | 0.1418 | 0.1492   | 0.1517     | 0.1558          | 0.1338             | 8.77           | 0.998 | 1.00  | 19    | 0.01  |       | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| n-Nitrosodiphenylamine     | 1          | 0               | Avg                | 0.6224 | 0.7153 | 0.5414 | 0.6261 | 0.6658   | 0.6854     | 0.7070          | 0.7226             | 0.6618         | 8.84  | 0.997 | 1.00  | 9.3   | 0.01  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 2,4,6-Tribromophenol       | 1          | 0               | Qua                | 0.0979 | 0.1056 | 0.0835 | 0.1001 | 0.1078   | 0.1129     | 0.1165          | 0.1219             | 0.1068         | 8.97  | 0.997 | 1.00  | 11    |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 1,2-Diphenylhydrazine      | 1          | 0               | Avg                | 0.7011 | 0.7774 | 0.5875 | 0.7018 | 0.7294   | 0.7335     | 0.7382          | 0.7536             | 0.7158         | 8.88  | 0.999 | 1.00  | 8.0   |       |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4-Bromophenyl-phenyl       | 1          | 0               | Avg                | 0.2011 | 0.2279 | 0.1743 | 0.2050 | 0.2139   | 0.2213     | 0.2294          | 0.2377             | 0.2149         | 9.21  | 0.998 | 1.00  | 9.5   | 0.10  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Hexachlorobenzene          | 1          | 0               | Avg                | 0.2114 | 0.2557 | 0.1830 | 0.2166 | 0.2270   | 0.2374     | 0.2440          | 0.2544             | 0.2299         | 9.29  | 0.996 | 1.00  | 11    | 0.10  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| n-Octadecane               | 1          | 0               | Avg                | 0.5008 | 0.6029 | 0.4435 | 0.4967 | 0.5066   | 0.5078     | 0.5036          | 0.5039             | 0.5089         | 9.56  | 1.00  | 1.00  | 8.6   | 0.05  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Pentachlorophenol          | 1          | 0               | Qua                | 0.1297 | 0.1086 | 0.1209 | 0.1453 | 0.1528   | 0.1604     | 0.1663          | 0.1419             | 9.49           | 0.996 | 1.00  | 15    | 0.05  |       | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| Phenanthrene               | 1          | 0               | Qua                | 1.0247 | 1.1842 | 0.9062 | 1.0254 | 1.1001   | 1.1437     | 1.1637          | 1.2039             | 1.0997         | 9.72  | 0.998 | 1.00  | 9.3   | 0.70  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Anthracene                 | 1          | 0               | Avg                | 1.0745 | 1.2286 | 0.9039 | 1.0588 | 1.1401   | 1.1813     | 1.2134          | 1.2635             | 1.1397         | 9.77  | 0.998 | 1.00  | 10    | 0.70  |       | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Carbazole                  | 1          | 0               | Avg                | 0.9788 | 1.1526 | 0.8547 | 0.9723 | 1.0359   | 1.0865     | 1.0941          | 1.1247             | 1.0499         | 9.94  | 0.999 | 1.00  | 9.4   | 0.01  |       | 50.00 | 2.0   |       |       |       |       |       |       |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 9.82

| Compound                | Col | Mr | Fit | RF1    | RF2    | RF3    | RF4    | RF5    | RF6    | RF7    | RF8    | RF9  | AvgRt | RT    | Corr1 | Corr2 | %Rsd | Calibration Level Concentrations |      |       |       |       |       |       |       |     |
|-------------------------|-----|----|-----|--------|--------|--------|--------|--------|--------|--------|--------|------|-------|-------|-------|-------|------|----------------------------------|------|-------|-------|-------|-------|-------|-------|-----|
|                         |     |    |     |        |        |        |        |        |        |        |        |      |       |       |       |       |      | Lv1                              | Lv2  | Lv3   | Lv4   | Lv5   | Lv6   | Lv7   | Lv8   | Lv9 |
| 4.4'-DDE                | 1   | 0  | Avg | 0.2338 | 0.2837 | 0.2045 | 0.2314 | 0.2509 | 0.2591 | 0.2540 | 0.2632 | ---- | 0.248 | 11.43 | 0.999 | 0.999 | 9.7  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 4.4'-DDD                | 1   | 0  | Avg | 0.4162 | 0.4551 | 0.3513 | 0.4060 | 0.4423 | 0.4605 | 0.4584 | 0.4694 | ---- | 0.432 | 11.83 | 0.998 | 0.999 | 9.2  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Butylbenzophthalate     | 1   | 0  | Avg | 0.4953 | 0.5795 | 0.4475 | 0.4965 | 0.5125 | 0.5309 | 0.5241 | 0.5290 | ---- | 0.514 | 12.09 | 1.00  | 1.00  | 7.3  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 4.4'-DDT                | 1   | 0  | Avg | 0.3858 | 0.3534 | 0.3045 | 0.3628 | 0.4071 | 0.4301 | 0.4358 | 0.4512 | ---- | 0.391 | 12.19 | 0.998 | 1.00  | 13   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| 3,3'-Dichlorobenzidine  | 1   | 0  | Qua | 0.3641 | 0.3677 | 0.2758 | 0.3795 | 0.3687 | 0.3462 | 0.3215 | 0.3065 | ---- | 0.341 | 12.70 | 0.992 | 1.00  | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzolanthracene        | 1   | 0  | Avg | 1.0361 | 1.2589 | 0.9145 | 1.0441 | 1.0984 | 1.1369 | 1.1388 | 1.1672 | ---- | 1.10  | 12.73 | 0.999 | 1.00  | 9.4  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Chrysene                | 1   | 0  | Qua | 0.9903 | 1.1500 | 0.8398 | 0.9716 | 1.0698 | 1.1252 | 1.1465 | 1.1835 | ---- | 1.06  | 12.78 | 0.998 | 1.00  | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| bis(2-Ethylhexyl)phthal | 1   | 0  | Avg | 0.7033 | 0.8382 | 0.6196 | 0.6878 | 0.7461 | 0.7682 | 0.7820 | 0.8042 | ---- | 0.744 | 12.79 | 0.999 | 1.00  | 9.5  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Di-n-octylphthalate     | 1   | 0  | Qua | 1.3031 | 1.5665 | 1.1478 | 1.2824 | 1.3748 | 1.4327 | 1.4769 | 1.5072 | ---- | 1.39  | 13.54 | 0.998 | 1.00  | 9.9  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzobifluoranthene     | 1   | 0  | Avg | 1.0812 | 1.2132 | 0.9209 | 1.0269 | 1.1662 | 1.1582 | 1.2169 | 1.2504 | ---- | 1.13  | 13.96 | 0.998 | 1.00  | 9.9  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzokilfluoranthene    | 1   | 0  | Avg | 1.0789 | 1.2017 | 0.8862 | 1.1189 | 1.1305 | 1.2478 | 1.2244 | 1.2986 | ---- | 1.15  | 13.99 | 0.997 | 0.999 | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzolaprene            | 1   | 0  | Avg | 1.0465 | 1.2107 | 0.8874 | 1.0246 | 1.1213 | 1.1681 | 1.2027 | 1.2323 | ---- | 1.11  | 14.31 | 0.998 | 1.00  | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Indenofl,2,3-cdipyr     | 1   | 0  | Avg | 1.1462 | 1.2973 | 0.9837 | 1.1324 | 1.2213 | 1.2738 | 1.3129 | 1.3338 | ---- | 1.21  | 15.69 | 0.999 | 1.00  | 9.8  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Dibenzofl,anthracen     | 1   | 0  | Avg | 0.9539 | 1.0792 | 0.8265 | 0.9531 | 1.0306 | 1.0818 | 1.1279 | 1.1571 | ---- | 1.03  | 15.71 | 0.998 | 1.00  | 11   | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |
| Benzofl,h,liberylene    | 1   | 0  | Avg | 0.9397 | 1.1100 | 0.8305 | 0.9513 | 1.0123 | 1.0433 | 1.0671 | 1.0725 | ---- | 1.00  | 16.06 | 0.999 | 1.00  | 9.1  | 50.00                            | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |     |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria (if applicable)

## Note:

Avg Rsd: 9.82

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

SampleID : CAL BNA@50PPM  
Data File: 9M88309.D  
Acq On : 10/ 8/18 13:26

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 9M 1008.M  
Qt On : 10/08/18 13:40  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.544  | 96   | 38833      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.791  | 152  | 76879      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.803  | 136  | 292633     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.232  | 164  | 183035     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.690  | 188  | 321225     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.747 | 240  | 360599     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.373 | 264  | 322704     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.592  | 112  | 110934     | 49.55   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 49.55%  |       |          |
| 16) Phenol-d5                  | 5.479  | 99   | 160310     | 48.69   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.69%  |       |          |
| 32) Nitrobenzene-d5            | 6.240  | 128  | 22975      | 25.64   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 51.28%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.644  | 172  | 139301     | 23.83   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 47.66%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.971  | 330  | 39315      | 62.28   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 62.28%  |       |          |
| 94) Terphenyl-d14              | 11.494 | 244  | 144216     | 25.00   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.00%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.578  | 88   | 47322      | 49.0393 | ng    | 95       |
| 9) Pyridine                    | 3.041  | 79   | 118969     | 43.0585 | ng    | 82       |
| 10) N-Nitrosodimethylamine     | 2.961  | 74   | 69903      | 43.7723 | ng    | 85       |
| 12) Benzaldehyde               | 5.411  | 77   | 65256      | 38.5636 | ng    | 79       |
| 13) Aniline                    | 5.507  | 93   | 156287     | 48.2095 | ng    | 89       |
| 14) Pentachloroethane          | 5.550  | 117  | 40592      | 45.5664 | ng    | 73       |
| 15) bis(2-Chloroethyl) ether   | 5.567  | 93   | 113405     | 44.0342 | ng    | 84       |
| 17) Phenol                     | 5.490  | 94   | 155856     | 44.8668 | ng    | 92       |
| 18) 2-Chlorophenol             | 5.612  | 128  | 123092     | 50.1516 | ng    | 85       |
| 19) N-Decane                   | 5.664  | 57   | 140429     | 40.3550 | ng    | 72       |
| 20) 1,3-Dichlorobenzene        | 5.743  | 146  | 134243     | 51.2300 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.806  | 146  | 136597     | 44.9805 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.931  | 146  | 129261     | 45.8308 | ng    | 96       |
| 24) Benzyl alcohol             | 5.905  | 108  | 80442      | 42.3955 | ng    | 79       |
| 25) bis(2-chloroisopropyl)...  | 6.022  | 45   | 172931     | 32.9273 | ng    | 99       |
| 26) 2-Methylphenol             | 5.999  | 108  | 109360     | 41.5690 | ng    | 98       |
| 27) Acetophenone               | 6.121  | 105  | 177535     | 40.5317 | ng    | 74       |
| 28) Hexachloroethane           | 6.209  | 117  | 52608      | 40.1260 | ng    | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.121  | 70   | 90883      | 37.1424 | ng    | 95       |
| 30) 3&4-Methylphenol           | 6.124  | 108  | 118762     | 40.5955 | ng    | 95       |
| 33) Nitrobenzene               | 6.257  | 77   | 130559     | 40.8059 | ng    | 82       |
| 34) Isophorone                 | 6.445  | 82   | 226725     | 40.4982 | ng    | 86       |
| 35) 2-Nitrophenol              | 6.508  | 139  | 71255      | 51.5320 | ng    | 94       |
| 36) 2,4-Dimethylphenol         | 6.539  | 107  | 128528     | 46.7413 | ng    | 98       |
| 37) Benzoic Acid               | 6.621  | 105  | 137028     | 58.7948 | ng    | 92       |
| 38) bis(2-Chloroethoxy)met...  | 6.610  | 93   | 141123     | 42.3143 | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.695  | 162  | 107158     | 51.4295 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.760  | 180  | 114928     | 52.7853 | ng    | 95       |
| 41) Naphthalene                | 6.820  | 128  | 359988     | 46.4380 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.854  | 127  | 143544     | 47.3264 | ng    | 91       |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 67596      | 57.9830 | ng    | 96       |
| 44) Caprolactam                | 7.127  | 113  | 40738      | 46.8601 | ng    | 71       |
| 45) 4-Chloro-3-methylphenol    | 7.224  | 107  | 108510     | 45.7647 | ng    | 93       |
| 46) 2-Methylnaphthalene        | 7.354  | 142  | 256561     | 46.8200 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.434  | 142  | 247798     | 45.4096 | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.354  | 142  | 504349m    | 92.0463 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.729  | 154  | 297741     | 42.7747 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.488  | 216  | 126809     | 48.8169 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.482  | 237  | 46615      | 33.0352 | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.579  | 196  | 79252      | 48.7810 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.613  | 196  | 86088      | 49.6569 | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.752  | 162  | 238224     | 42.7040 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.033  | 156  | 206185     | 40.5314 | ng    | 93       |
| 58) Dimethylnaphthalenes (...) | 8.033  | 156  | 206185     | 40.5314 | ng    | 93       |
| 59) Diphenyl Ether             | 7.815  | 170  | 182580     | 43.0609 | ng    | 80       |
| 60) 2-Nitroaniline             | 7.826  | 65   | 91398      | 33.0193 | ng    | 65       |
| 61) Coumarin                   | 8.013  | 146  | 94920      | 39.2914 | ng    | 80       |
| 62) Acenaphthylene             | 8.110  | 152  | 351689     | 45.9634 | ng    | 98       |
| 63) Dimethylphthalate          | 7.974  | 163  | 280754     | 43.9025 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.031  | 165  | 66242      | 50.8175 | ng    | 64       |
| 65) Acenaphthene               | 8.261  | 153  | 247723     | 46.3276 | ng    | 96       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 9M\_1008.M  
 Data File: 9M88309.D Sam Mult : 1 Vial# : 10 Qt On : 10/08/18 13:40  
 Acq On : 10/ 8/18 13:26 Misc : A,BNA Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.178  | 138  | 68570    | 44.7396 | ng    | 78       |
| 67)  | 2,4-Dinitrophenol         | 8.275  | 184  | 36207    | 60.5760 | ng    | 37       |
| 68)  | Dibenzofuran              | 8.417  | 168  | 350479   | 48.1784 | ng    | 89       |
| 69)  | 2,4-Dinitrotoluene        | 8.389  | 165  | 88044    | 50.4188 | ng    | 67       |
| 70)  | 4-Nitrophenol             | 8.318  | 65   | 51843    | 37.0784 | ng    | 81       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.525  | 232  | 75661    | 52.8122 | ng    | 85       |
| 72)  | Fluorene                  | 8.738  | 166  | 295342   | 46.0150 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.727  | 204  | 142945   | 46.4314 | ng    | 84       |
| 74)  | Diethylphthalate          | 8.607  | 149  | 283830   | 43.5999 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.744  | 138  | 79624    | 40.3667 | ng    | 81       |
| 76)  | Atrazine                  | 9.372  | 200  | 93515    | 50.2574 | ng    | 94       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.775  | 198  | 50231    | 61.8563 | ng    | 58       |
| 79)  | n-Nitrosodiphenylamine    | 8.837  | 169  | 249924   | 43.7125 | ng    | 97       |
| 81)  | 1,2-Diphenylhydrazine     | 8.883  | 77   | 281524   | 33.9709 | ng    | 84       |
| 82)  | 4-Bromophenyl-phenylether | 9.213  | 248  | 80778    | 56.5658 | ng    | 88       |
| 83)  | Hexachlorobenzene         | 9.289  | 284  | 84890    | 56.5605 | ng    | 67       |
| 84)  | N-Octadecane              | 9.562  | 57   | 201123   | 33.2919 | ng    | 91       |
| 85)  | Pentachlorophenol         | 9.488  | 266  | 52108    | 53.0408 | ng    | 96       |
| 86)  | Phenanthrene              | 9.715  | 178  | 411464   | 47.6052 | ng    | 99       |
| 87)  | Anthracene                | 9.772  | 178  | 431455   | 48.4560 | ng    | 100      |
| 88)  | Carbazole                 | 9.937  | 167  | 393055   | 47.0297 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.324 | 149  | 491448   | 43.5445 | ng    | 98       |
| 90)  | Fluoranthene              | 11.048 | 202  | 470620   | 49.9458 | ng    | 87       |
| 92)  | Pyrene                    | 11.310 | 202  | 479305   | 42.1081 | ng    | 84       |
| 93)  | Benzidine                 | 11.196 | 184  | 205360   | 55.9849 | ng    | 84       |
| 95)  | 4,4'-DDE                  | 11.435 | 246  | 105410   | 45.7207 | ng    | 94       |
| 96)  | 4,4'-DDD                  | 11.832 | 235  | 187628   | 49.2386 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.088 | 149  | 223270   | 40.1703 | ng    | 70       |
| 98)  | 4,4'-DDT                  | 12.190 | 235  | 173915   | 51.8767 | ng    | 99       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.705 | 252  | 164122   | 58.4270 | ng    | 94       |
| 100) | Benzo[a]anthracene        | 12.733 | 228  | 467046   | 45.1069 | ng    | 99       |
| 101) | Chrysene                  | 12.776 | 228  | 446383   | 48.7041 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.787 | 149  | 317053   | 43.0445 | ng    | 95       |
| 104) | Di-n-octylphthalate       | 13.537 | 149  | 525648   | 43.5519 | ng    | 98       |
| 105) | Benzo[b]fluoranthene      | 13.958 | 252  | 436161   | 50.0878 | ng    | 92       |
| 106) | Benzo[k]fluoranthene      | 13.986 | 252  | 435210   | 46.9003 | ng    | 92       |
| 107) | Benzo[a]pyrene            | 14.313 | 252  | 422160   | 48.4269 | ng    | 90       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.688 | 276  | 462355   | 49.7732 | ng    | 83       |
| 109) | Dibenzo[a,h]anthracene    | 15.705 | 278  | 384819   | 54.0529 | ng    | 88       |
| 110) | Benzo[g,h,i]perylene      | 16.060 | 276  | 379087   | 48.5705 | ng    | 75       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@2PPM  
Data File: 9M88302.D  
Acq On : 10/ 8/18 10:42

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:09  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| Internal Standards             |        |      |          |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.544  | 96   | 43359    | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.792  | 152  | 83713    | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.803  | 136  | 320020   | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.230  | 164  | 197447   | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.690  | 188  | 342219   | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.745 | 240  | 378938   | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.378 | 264  | 349977   | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |          |        |       |          |
| 11) 2-Fluorophenol             | 4.590  | 112  | 5720m    | 2.29   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 2.29% |          |
| 16) Phenol-d5                  | 5.479  | 99   | 7852     | 2.14   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 2.14% |          |
| 32) Nitrobenzene-d5            | 6.241  | 128  | 1166     | 1.19   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 2.38% |          |
| 55) 2-Fluorobiphenyl           | 7.641  | 172  | 7211     | 1.14   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 2.28% |          |
| 80) 2,4,6-Tribromophenol       | 8.971  | 330  | 1807     | 3.31   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =      | 3.31% |          |
| 94) Terphenyl-d14              | 11.494 | 244  | 7134     | 1.18   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =      | 2.36% |          |
| Target Compounds               |        |      |          |        |       |          |
| 8) 1,4-Dioxane                 | 2.584  | 88   | 2627     | 2.4382 | ng    | 79       |
| 9) Pyridine                    | 3.169  | 79   | 6204m    | 2.0110 | ng    |          |
| 10) N-Nitrosodimethylamine     | 3.007  | 74   | 3100m    | 1.7386 | ng    |          |
| 12) Benzaldehyde               | 5.411  | 77   | 3302     | 1.7477 | ng    | 84       |
| 13) Aniline                    | 5.507  | 93   | 5998     | 1.6571 | ng    | 51       |
| 14) Pentachloroethane          | 5.547  | 117  | 1955     | 1.9655 | ng    | 56       |
| 15) bis(2-Chloroethyl)ether    | 5.564  | 93   | 5987     | 2.0820 | ng    | 77       |
| 17) Phenol                     | 5.490  | 94   | 7841     | 2.0216 | ng    | 90       |
| 18) 2-Chlorophenol             | 5.610  | 128  | 6318     | 2.3055 | ng    | 80       |
| 19) N-Decane                   | 5.661  | 57   | 7745     | 1.9934 | ng    | 72       |
| 20) 1,3-Dichlorobenzene        | 5.740  | 146  | 6944     | 2.3734 | ng    | 91       |
| 22) 1,4-Dichlorobenzene        | 5.806  | 146  | 7119     | 2.1529 | ng    | 96       |
| 23) 1,2-Dichlorobenzene        | 5.931  | 146  | 6786     | 2.2096 | ng    | 95       |
| 24) Benzyl alcohol             | 5.905  | 108  | 3577     | 1.7313 | ng    | 85       |
| 25) bis(2-chloroisopropyl)...  | 6.019  | 45   | 9047     | 1.5820 | ng    | 91       |
| 26) 2-Methylphenol             | 5.999  | 108  | 5279     | 1.8428 | ng    | 91       |
| 27) Acetophenone               | 6.118  | 105  | 8597     | 1.8025 | ng    | 66       |
| 28) Hexachloroethane           | 6.206  | 117  | 2721     | 1.9060 | ng    | 96       |
| 29) N-Nitroso-di-n-propyla...  | 6.118  | 70   | 4872     | 1.8286 | ng    | 98       |
| 30) 3&4-Methylphenol           | 6.124  | 108  | 5529     | 1.7356 | ng    | 83       |
| 33) Nitrobenzene               | 6.255  | 77   | 6590     | 1.8834 | ng    | 74       |
| 34) Isophorone                 | 6.442  | 82   | 11011    | 1.7985 | ng    | 94       |
| 35) 2-Nitrophenol              | 6.508  | 139  | 3338     | 2.2075 | ng    | 91       |
| 36) 2,4-Dimethylphenol         | 6.536  | 107  | 6352     | 2.2273 | ng    | 86       |
| 37) Benzoic Acid               | 6.587  | 105  | 1318     | 0.5637 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.607  | 93   | 6875     | 1.8850 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.695  | 162  | 5036     | 2.2101 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.758  | 180  | 5776     | 2.6096 | ng    | 96       |
| 41) Naphthalene                | 6.817  | 128  | 18333    | 2.2663 | ng    | 95       |
| 42) 4-Chloroaniline            | 6.857  | 127  | 5515     | 1.5565 | ng    | 99       |
| 43) Hexachlorobutadiene        | 6.911  | 225  | 3668     | 3.3808 | ng    | 91       |
| 44) Caprolactam                | 7.104  | 113  | 1982     | 2.0847 | ng    | 74       |
| 45) 4-Chloro-3-methylphenol    | 7.224  | 107  | 5512     | 2.1258 | ng    | 95       |
| 46) 2-Methylnaphthalene        | 7.354  | 142  | 12655    | 2.1118 | ng    | 96       |
| 47) 1-Methylnaphthalene        | 7.434  | 142  | 12319    | 2.0643 | ng    | 85       |
| 48) Methylnaphthalenes (To...  | 7.354  | 142  | 25001m   | 4.1723 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.729  | 154  | 14882    | 1.9550 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.488  | 216  | 6354     | 2.5445 | ng    | 94       |
| 52) Hexachlorocyclopentadiene  | 7.479  | 237  | 451m     | 0.3253 | ng    |          |
| 53) 2,4,6-Trichlorophenol      | 7.576  | 196  | 3821     | 2.1802 | ng    | 86       |
| 54) 2,4,5-Trichlorophenol      | 7.616  | 196  | 4124     | 2.2052 | ng    | 95       |
| 56) 2-Chloronaphthalene        | 7.752  | 162  | 12419    | 2.0637 | ng    | 87       |
| 57) 1,4-Dimethylnaphthalene    | 8.031  | 156  | 10139    | 1.8476 | ng    | 91       |
| 58) Dimethylnaphthalenes (...) | 8.031  | 156  | 10139    | 1.8476 | ng    | 91       |
| 59) Diphenyl Ether             | 7.812  | 170  | 9471     | 2.0707 | ng    | 84       |
| 60) 2-Nitroaniline             | 7.826  | 65   | 4239     | 1.4294 | ng    | 69       |
| 61) Coumarin                   | 8.005  | 146  | 4975     | 1.9090 | ng    | 86       |
| 62) Acenaphthylene             | 8.107  | 152  | 17711    | 2.3374 | ng    | 94       |
| 63) Dimethylphthalate          | 7.968  | 163  | 13892    | 2.0138 | ng    | 96       |
| 64) 2,6-Dinitrotoluene         | 8.025  | 165  | 3247     | 2.8209 | ng    | 55       |
| 65) Acenaphthene               | 8.261  | 153  | 12520    | 2.4319 | ng    | 88       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM

Operator : AH/JB

Qt Meth : 9M\_1008.M

Data File: 9M88302.D

Sam Mult : 1 Vial# : 3

Qt On : 10/08/18 12:09

Acq On : 10/ 8/18 10:42

Misc : A,BNA

Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\

Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\

Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.176  | 138  | 3271     | 1.9384 | ng    | 68       |
| 67)  | 2,4-Dinitrophenol         | 0.000  |      | 0        | N.D.   |       |          |
| 68)  | Dibenzofuran              | 8.414  | 168  | 16753    | 2.3174 | ng    | 99       |
| 69)  | 2,4-Dinitrotoluene        | 8.386  | 165  | 4204     | 2.3801 | ng    | 66       |
| 70)  | 4-Nitrophenol             | 8.332  | 65   | 1932     | 1.3523 | ng    | 71       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.525  | 232  | 3410     | 2.2065 | ng    | 80       |
| 72)  | Fluorene                  | 8.738  | 166  | 14092    | 2.2464 | ng    | 96       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.724  | 204  | 6971     | 2.0990 | ng    | 84       |
| 74)  | Diethylphthalate          | 8.602  | 149  | 14626    | 2.0827 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.738  | 138  | 3835     | 1.8384 | ng    | 79       |
| 76)  | Atrazine                  | 9.366  | 200  | 4674     | 2.4742 | ng    | 92       |
| 78)  | 4,6-Dinitro-2-methylph... | 0.000  |      | 0        | N.D. d |       |          |
| 79)  | n-Nitrosodiphenylamine    | 8.835  | 169  | 12241    | 2.0096 | ng    | 97       |
| 81)  | 1,2-Diphenylhydrazine     | 8.880  | 77   | 13302    | 1.5067 | ng    | 77       |
| 82)  | 4-Bromophenyl-phenylether | 9.213  | 248  | 3901     | 3.0521 | ng    | 86       |
| 83)  | Hexachlorobenzene         | 9.287  | 284  | 4376     | 3.2446 | ng    | 65       |
| 84)  | N-Octadecane              | 9.559  | 57   | 10317    | 1.6030 | ng    | 84       |
| 85)  | Pentachlorophenol         | 0.000  |      | 0        | N.D. d |       |          |
| 86)  | Phenanthrene              | 9.716  | 178  | 20263    | 2.4389 | ng    | 98       |
| 87)  | Anthracene                | 9.770  | 178  | 21024    | 2.4866 | ng    | 98       |
| 88)  | Carbazole                 | 9.937  | 167  | 19722    | 2.4346 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.324 | 149  | 23756    | 2.0785 | ng    | 97       |
| 90)  | Fluoranthene              | 11.045 | 202  | 23422    | 2.6690 | ng    | 88       |
| 92)  | Pyrene                    | 11.310 | 202  | 23512    | 1.9656 | ng    | 83       |
| 93)  | Benzidine                 | 11.199 | 184  | 5674     | 1.3378 | ng    | 86       |
| 95)  | 4,4'-DDE                  | 11.432 | 246  | 5376     | 2.2189 | ng    | 93       |
| 96)  | 4,4'-DDD                  | 11.832 | 235  | 8624     | 2.1536 | ng    | 90       |
| 97)  | Butylbenzylphthalate      | 12.085 | 149  | 10981    | 1.8801 | ng    | 68       |
| 98)  | 4,4'-DDT                  | 12.191 | 235  | 6697     | 1.9010 | ng    | 97       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.705 | 252  | 6967     | 2.1659 | ng    | 98       |
| 100) | Benzo[a]anthracene        | 12.730 | 228  | 23854    | 2.1923 | ng    | 98       |
| 101) | Chrysene                  | 12.773 | 228  | 21790    | 2.4883 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.790 | 149  | 15883    | 2.1376 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.540 | 149  | 27413    | 2.3491 | ng    | 98       |
| 105) | Benzo[b]fluoranthene      | 13.958 | 252  | 21230    | 2.6471 | ng    | 89       |
| 106) | Benzo[k]fluoranthene      | 13.986 | 252  | 21029    | 2.4323 | ng    | 93       |
| 107) | Benzo[a]pyrene            | 14.313 | 252  | 21186    | 2.5724 | ng    | 88       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.685 | 276  | 22702    | 2.2535 | ng    | 100      |
| 109) | Dibenzo[a,h]anthracene    | 15.708 | 278  | 18886    | 2.9413 | ng    | 87       |
| 110) | Benzo[g,h,i]perylene      | 16.058 | 276  | 19424    | 2.2948 | ng    | 81       |

(#)= qualifier out of range (m)= manual integration (+)= signals summed



SampleID : CAL BNA@10PPM  
Data File: 9M88301.D  
Acq On : 10/ 8/18 10:20

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:09  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|---------|--------|----------|
| Internal Standards             |        |      |          |         |        |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.547  | 96   | 46819    | 40.00   | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.794  | 152  | 88053    | 40.00   | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.814  | 136  | 338146   | 40.00   | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.246  | 164  | 203823   | 40.00   | ng     | 0.01     |
| 77) Phenanthrene-d10           | 9.704  | 188  | 355448   | 40.00   | ng     | 0.01     |
| 91) Chrysene-d12               | 12.753 | 240  | 386511   | 40.00   | ng     | 0.00     |
| 103) Perylene-d12              | 14.410 | 264  | 356911   | 40.00   | ng     | 0.04     |
| System Monitoring Compounds    |        |      |          |         |        |          |
| 11) 2-Fluorophenol             | 4.595  | 112  | 22306    | 8.26    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.26%  |          |
| 16) Phenol-d5                  | 5.482  | 99   | 32179    | 8.11    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.11%  |          |
| 32) Nitrobenzene-d5            | 6.243  | 128  | 4538     | 4.38    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.76%  |          |
| 55) 2-Fluorobiphenyl           | 7.658  | 172  | 28598    | 4.39    | ng     | 0.01     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.78%  |          |
| 80) 2,4,6-Tribromophenol       | 8.985  | 330  | 7427     | 12.62   | ng     | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 12.62% |          |
| 94) Terphenyl-d14              | 11.503 | 244  | 27215    | 4.40    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.80%  |          |
| Target Compounds               |        |      |          |         |        |          |
| 8) 1,4-Dioxane                 | 2.581  | 88   | 10034    | 8.6245  | ng     | 65       |
| 9) Pyridine                    | 3.101  | 79   | 26106m   | 7.8369  | ng     |          |
| 10) N-Nitrosodimethylamine     | 2.981  | 74   | 14467m   | 7.5138  | ng     |          |
| 12) Benzaldehyde               | 5.414  | 77   | 17051    | 8.3577  | ng     | 76       |
| 13) Aniline                    | 5.510  | 93   | 25900m   | 6.6266  | ng     |          |
| 14) Pentachloroethane          | 5.553  | 117  | 8673     | 8.0752  | ng     | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.567  | 93   | 23518    | 7.5742  | ng     | 85       |
| 17) Phenol                     | 5.493  | 94   | 31474    | 7.5151  | ng     | 91       |
| 18) 2-Chlorophenol             | 5.615  | 128  | 24980    | 8.4416  | ng     | 84       |
| 19) N-Decane                   | 5.666  | 57   | 29559    | 7.0455  | ng     | 71       |
| 20) 1,3-Dichlorobenzene        | 5.746  | 146  | 27092    | 8.5754  | ng     | 98       |
| 22) 1,4-Dichlorobenzene        | 5.808  | 146  | 27815    | 7.9970  | ng     | 99       |
| 23) 1,2-Dichlorobenzene        | 5.933  | 146  | 25645    | 7.9388  | ng     | 98       |
| 24) Benzyl alcohol             | 5.908  | 108  | 16070    | 7.3946  | ng     | 73       |
| 25) bis(2-chloroisopropyl)...  | 6.024  | 45   | 35910    | 5.9698  | ng     | 92       |
| 26) 2-Methylphenol             | 6.002  | 108  | 22662    | 7.5210  | ng     | 97       |
| 27) Acetophenone               | 6.121  | 105  | 35457    | 7.0677  | ng     | 73       |
| 28) Hexachloroethane           | 6.212  | 117  | 10636    | 7.0830  | ng     | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.121  | 70   | 18131    | 6.4695  | ng     | 94       |
| 30) 3&4-Methylphenol           | 6.130  | 108  | 23405    | 6.9851  | ng     | 97       |
| 33) Nitrobenzene               | 6.257  | 77   | 25848    | 6.9914  | ng     | 82       |
| 34) Isophorone                 | 6.451  | 82   | 45989    | 7.1090  | ng     | 91       |
| 35) 2-Nitrophenol              | 6.513  | 139  | 13971    | 8.7440  | ng     | 92       |
| 36) 2,4-Dimethylphenol         | 6.544  | 107  | 24951    | 8.2197  | ng     | 97       |
| 37) Benzoic Acid               | 6.587  | 105  | 19946    | 7.9819  | ng     | 83       |
| 38) bis(2-Chloroethoxy)met...  | 6.615  | 93   | 27182    | 7.0533  | ng     | 97       |
| 39) 2,4-Dichlorophenol         | 6.704  | 162  | 21237    | 8.8206  | ng     | 84       |
| 40) 1,2,4-Trichlorobenzene     | 6.766  | 180  | 22552    | 9.5429  | ng     | 97       |
| 41) Naphthalene                | 6.829  | 128  | 72323    | 8.4052  | ng     | 82       |
| 42) 4-Chloroaniline            | 6.865  | 127  | 23690    | 6.3704  | ng     | 89       |
| 43) Hexachlorobutadiene        | 6.925  | 225  | 13211    | 11.2406 | ng     | 95       |
| 44) Caprolactam                | 7.121  | 113  | 7916     | 7.8800  | ng     | 73       |
| 45) 4-Chloro-3-methylphenol    | 7.235  | 107  | 21392    | 7.8079  | ng     | 99       |
| 46) 2-Methylnaphthalene        | 7.368  | 142  | 51078    | 8.0667  | ng     | 95       |
| 47) 1-Methylnaphthalene        | 7.448  | 142  | 48429    | 7.6802  | ng     | 89       |
| 48) Methylnaphthalenes (To...  | 7.368  | 142  | 99506m   | 15.7161 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.743  | 154  | 58614    | 7.2873  | ng     | 90       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.502  | 216  | 24605    | 9.3758  | ng     | 98       |
| 52) Hexachlorocyclopentadiene  | 7.496  | 237  | 5049     | 3.4945  | ng     | 92       |
| 53) 2,4,6-Trichlorophenol      | 7.593  | 196  | 15416    | 8.5210  | ng     | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.627  | 196  | 16282    | 8.4339  | ng     | 97       |
| 56) 2-Chloronaphthalene        | 7.766  | 162  | 47599    | 7.6623  | ng     | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.048  | 156  | 40120    | 7.0823  | ng     | 88       |
| 58) Dimethylnaphthalenes (...) | 8.048  | 156  | 40120    | 7.0823  | ng     | 88       |
| 59) Diphenyl Ether             | 7.829  | 170  | 34875    | 7.3863  | ng     | 85       |
| 60) 2-Nitroaniline             | 7.840  | 65   | 17974    | 5.8656  | ng     | 75       |
| 61) Coumarin                   | 8.025  | 146  | 19136    | 7.1133  | ng     | 83       |
| 62) Acenaphthylene             | 8.124  | 152  | 68901    | 8.6955  | ng     | 97       |
| 63) Dimethylphthalate          | 7.988  | 163  | 55176    | 7.7481  | ng     | 98       |
| 64) 2,6-Dinitrotoluene         | 8.045  | 165  | 12722    | 10.3472 | ng     | 66       |
| 65) Acenaphthene               | 8.278  | 153  | 47740    | 8.8282  | ng     | 91       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM  
 Data File: 9M88301.D  
 Acq On : 10/ 8/18 10:20

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 9M\_1008.M  
 Qt On : 10/08/18 12:09  
 Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.192  | 138  | 12433    | 7.1551  | ng    | 75       |
| 67) 2,4-Dinitrophenol          | 8.289  | 184  | 4862     | 10.0495 | ng    | 25       |
| 68) Dibenzofuran               | 8.431  | 168  | 66919    | 8.8591  | ng    | 91       |
| 69) 2,4-Dinitrotoluene         | 8.406  | 165  | 16546    | 8.9923  | ng    | 58       |
| 70) 4-Nitrophenol              | 8.343  | 65   | 9969     | 6.7036  | ng    | 92       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.542  | 232  | 14391    | 9.0206  | ng    | 84       |
| 72) Fluorene                   | 8.755  | 166  | 55002    | 8.3722  | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.744  | 204  | 27144    | 7.9177  | ng    | 82       |
| 74) Diethylphthalate           | 8.621  | 149  | 54562    | 7.5266  | ng    | 97       |
| 75) 4-Nitroaniline             | 8.755  | 138  | 14890    | 6.8965  | ng    | 79       |
| 76) Atrazine                   | 9.383  | 200  | 18498    | 9.4003  | ng    | 99       |
| 78) 4,6-Dinitro-2-methylph...  | 8.789  | 198  | 7720     | 10.0830 | ng    | 51       |
| 79) n-Nitrosodiphenylamine     | 8.854  | 169  | 48110    | 7.6044  | ng    | 95       |
| 81) 1,2-Diphenylhydrazine      | 8.897  | 77   | 52212    | 5.6937  | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.230  | 248  | 15492    | 11.3358 | ng    | 82       |
| 83) Hexachlorobenzene          | 9.301  | 284  | 16264    | 11.2939 | ng    | 69       |
| 84) N-Octadecane               | 9.576  | 57   | 39410    | 5.8954  | ng    | 87       |
| 85) Pentachlorophenol          | 9.505  | 266  | 9658     | 10.1053 | ng    | 92       |
| 86) Phenanthrene               | 9.730  | 178  | 80531    | 9.1835  | ng    | 98       |
| 87) Anthracene                 | 9.784  | 178  | 80328    | 8.9918  | ng    | 98       |
| 88) Carbazole                  | 9.951  | 167  | 75953    | 8.8994  | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.335 | 149  | 92388    | 7.7278  | ng    | 97       |
| 90) Fluoranthene               | 11.057 | 202  | 89118    | 9.5759  | ng    | 88       |
| 92) Pyrene                     | 11.321 | 202  | 88967    | 7.2920  | ng    | 83       |
| 93) Benzidine                  | 11.207 | 184  | 37822    | 8.8536  | ng    | 90       |
| 95) 4,4'-DDE                   | 11.443 | 246  | 19764    | 7.9978  | ng    | 95       |
| 96) 4,4'-DDD                   | 11.841 | 235  | 33946    | 8.3111  | ng    | 92       |
| 97) Butylbenzylphthalate       | 12.094 | 149  | 43250    | 7.2598  | ng    | 69       |
| 98) 4,4'-DDT                   | 12.199 | 235  | 29431    | 8.1904  | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.710 | 252  | 26658    | 8.1973  | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.742 | 228  | 88371    | 7.9626  | ng    | 98       |
| 101) Chrysene                  | 12.781 | 228  | 81152    | 8.9604  | ng    | 96       |
| 102) bis(2-Ethylhexyl)phtha... | 12.798 | 149  | 59872    | 7.8541  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.557 | 149  | 102420   | 8.4539  | ng    | 98       |
| 105) Benzo[b]fluoranthene      | 13.983 | 252  | 82175    | 9.7856  | ng    | 93       |
| 106) Benzo[k]fluoranthene      | 14.015 | 252  | 79076    | 8.7640  | ng    | 92       |
| 107) Benzo[a]pyrene            | 14.344 | 252  | 79182    | 9.2292  | ng    | 89       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.725 | 276  | 87778    | 8.5438  | ng    | 72       |
| 109) Dibenzo[a,h]anthracene    | 15.748 | 278  | 73755    | 10.9184 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.100 | 276  | 74111    | 8.5854  | ng    | 77       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@20PPM  
Data File: 9M88307.D  
Acq On : 10/ 8/18 12:38

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 13:00  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.549  | 96   | 41655    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.791  | 152  | 79684    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.806  | 136  | 302917   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.235  | 164  | 182887   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.690  | 188  | 320085   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.744 | 240  | 361759   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.373 | 264  | 324385   | 40.00 | ng    | 0.00     |

|                             |        |     |            |        |    |      |
|-----------------------------|--------|-----|------------|--------|----|------|
| System Monitoring Compounds |        |     |            |        |    |      |
| 11) 2-Fluorophenol          | 4.589  | 112 | 45909      | 19.12  | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 19.12% |    |      |
| 16) Phenol-d5               | 5.479  | 99  | 66536      | 18.84  | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 18.84% |    |      |
| 32) Nitrobenzene-d5         | 6.240  | 128 | 9698       | 10.46  | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 20.92% |    |      |
| 55) 2-Fluorobiphenyl        | 7.644  | 172 | 56949      | 9.75   | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 19.50% |    |      |
| 80) 2,4,6-Tribromophenol    | 8.971  | 330 | 16032      | 28.54  | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 28.54% |    |      |
| 94) Terphenyl-d14           | 11.494 | 244 | 58007      | 10.02  | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 20.04% |    |      |

|                                |       |     |         |         |    |        |
|--------------------------------|-------|-----|---------|---------|----|--------|
| Target Compounds               |       |     |         |         |    | Qvalue |
| 8) 1,4-Dioxane                 | 2.583 | 88  | 19913   | 19.2377 | ng | 85     |
| 9) Pyridine                    | 3.061 | 79  | 45960   | 15.5074 | ng | 80     |
| 10) N-Nitrosodimethylamine     | 2.967 | 74  | 28083   | 16.3939 | ng | 83     |
| 12) Benzaldehyde               | 5.411 | 77  | 33718   | 18.5760 | ng | 79     |
| 13) Aniline                    | 5.507 | 93  | 67182   | 19.3195 | ng | 86     |
| 14) Pentachloroethane          | 5.550 | 117 | 16972   | 17.7611 | ng | 71     |
| 15) bis(2-Chloroethyl)ether    | 5.564 | 93  | 46560   | 16.8540 | ng | 87     |
| 17) Phenol                     | 5.490 | 94  | 65241   | 17.5088 | ng | 91     |
| 18) 2-Chlorophenol             | 5.609 | 128 | 51487   | 19.5563 | ng | 83     |
| 19) N-Decane                   | 5.663 | 57  | 59243   | 15.8713 | ng | 76     |
| 20) 1,3-Dichlorobenzene        | 5.740 | 146 | 56923   | 20.2514 | ng | 95     |
| 22) 1,4-Dichlorobenzene        | 5.806 | 146 | 57013   | 18.1131 | ng | 98     |
| 23) 1,2-Dichlorobenzene        | 5.931 | 146 | 53045   | 18.1456 | ng | 98     |
| 24) Benzyl alcohol             | 5.905 | 108 | 32541   | 16.5464 | ng | 76     |
| 25) bis(2-chloroisopropyl)...  | 6.019 | 45  | 72916   | 13.3950 | ng | 99     |
| 26) 2-Methylphenol             | 5.999 | 108 | 45381   | 16.6426 | ng | 97     |
| 27) Acetophenone               | 6.118 | 105 | 72950   | 16.0684 | ng | 70     |
| 28) Hexachloroethane           | 6.209 | 117 | 21898   | 16.1145 | ng | 85     |
| 29) N-Nitroso-di-n-propyla...  | 6.118 | 70  | 37647   | 14.8441 | ng | 96     |
| 30) 3&4-Methylphenol           | 6.124 | 108 | 47608   | 15.7006 | ng | 95     |
| 33) Nitrobenzene               | 6.255 | 77  | 53477   | 16.1467 | ng | 82     |
| 34) Isophorone                 | 6.445 | 82  | 93890   | 16.2015 | ng | 82     |
| 35) 2-Nitrophenol              | 6.507 | 139 | 28602   | 19.9829 | ng | 89     |
| 36) 2,4-Dimethylphenol         | 6.539 | 107 | 52593   | 19.0890 | ng | 95     |
| 37) Benzoic Acid               | 6.598 | 105 | 46967   | 20.5841 | ng | 86     |
| 38) bis(2-Chloroethoxy)met...  | 6.607 | 93  | 57874   | 16.7638 | ng | 97     |
| 39) 2,4-Dichlorophenol         | 6.695 | 162 | 43675   | 20.2498 | ng | 86     |
| 40) 1,2,4-Trichlorobenzene     | 6.760 | 180 | 46925   | 21.7681 | ng | 95     |
| 41) Naphthalene                | 6.820 | 128 | 146510  | 18.7964 | ng | 83     |
| 42) 4-Chloroaniline            | 6.854 | 127 | 58354   | 17.8027 | ng | 87     |
| 43) Hexachlorobutadiene        | 6.914 | 225 | 27535   | 25.0688 | ng | 95     |
| 44) Caprolactam                | 7.115 | 113 | 16834   | 18.7064 | ng | 68     |
| 45) 4-Chloro-3-methylphenol    | 7.223 | 107 | 44757   | 18.2357 | ng | 96     |
| 46) 2-Methylnaphthalene        | 7.357 | 142 | 104118  | 18.3555 | ng | 96     |
| 47) 1-Methylnaphthalene        | 7.437 | 142 | 99206   | 17.5625 | ng | 89     |
| 48) Methylnaphthalenes (To...  | 7.357 | 142 | 203039m | 35.7976 | ng |        |
| 49) 1,1'-Biphenyl              | 7.729 | 154 | 120702  | 16.7518 | ng | 90     |
| 51) 1,2,4,5-Tetrachloroben...  | 7.491 | 216 | 51748   | 21.3162 | ng | 95     |
| 52) Hexachlorocyclopentadiene  | 7.482 | 237 | 14186   | 10.7131 | ng | 98     |
| 53) 2,4,6-Trichlorophenol      | 7.579 | 196 | 32218   | 19.8468 | ng | 96     |
| 54) 2,4,5-Trichlorophenol      | 7.613 | 196 | 34614   | 19.9821 | ng | 93     |
| 56) 2-Chloronaphthalene        | 7.752 | 162 | 98098   | 17.5993 | ng | 92     |
| 57) 1,4-Dimethylnaphthalene    | 8.033 | 156 | 84646   | 16.6530 | ng | 90     |
| 58) Dimethylnaphthalenes (...) | 8.033 | 156 | 84646   | 16.6530 | ng | 90     |
| 59) Diphenyl Ether             | 7.814 | 170 | 74514   | 17.5881 | ng | 80     |
| 60) 2-Nitroaniline             | 7.829 | 65  | 38095   | 13.8310 | ng | 68     |
| 61) Coumarin                   | 8.011 | 146 | 38429   | 15.9203 | ng | 81     |
| 62) Acenaphthylene             | 8.110 | 152 | 142758  | 19.6442 | ng | 96     |
| 63) Dimethylphthalate          | 7.974 | 163 | 114774  | 17.9622 | ng | 98     |
| 64) 2,6-Dinitrotoluene         | 8.030 | 165 | 26767   | 22.9688 | ng | 66     |
| 65) Acenaphthene               | 8.263 | 153 | 99055   | 19.8263 | ng | 91     |



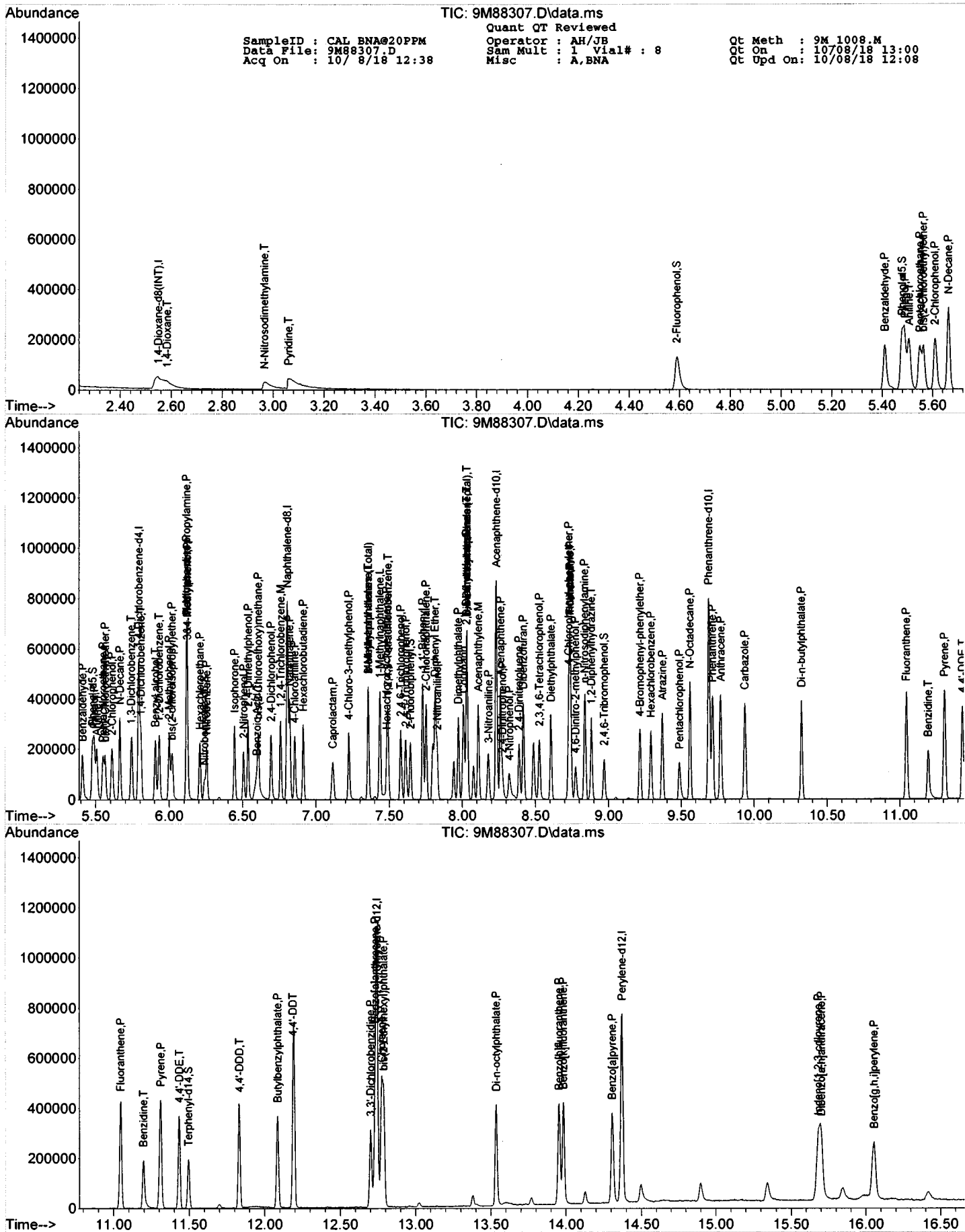
## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 9M\_1008.M  
 Data File: 9M88307.D Sam Mult : 1 Vial# : 8 Qt On : 10/08/18 13:00  
 Acq On : 10/ 8/18 12:38 Misc : A,BNA Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.181  | 138  | 27933    | 18.0079 | ng    | 71       |
| 67)  | 2,4-Dinitrophenol         | 8.275  | 184  | 11792    | 24.5238 | ng    | 43       |
| 68)  | Dibenzofuran              | 8.417  | 168  | 141998   | 20.5102 | ng    | 88       |
| 69)  | 2,4-Dinitrotoluene        | 8.388  | 165  | 35427    | 21.1070 | ng    | 65       |
| 70)  | 4-Nitrophenol             | 8.323  | 65   | 21169    | 15.6479 | ng    | 99       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.528  | 232  | 28896    | 20.1860 | ng    | 86       |
| 72)  | Fluorene                  | 8.738  | 166  | 115854   | 19.1700 | ng    | 97       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.729  | 204  | 58177    | 18.9123 | ng    | 81       |
| 74)  | Diethylphthalate          | 8.607  | 149  | 114194   | 17.5558 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.738  | 138  | 31895    | 16.3831 | ng    | 81       |
| 76)  | Atrazine                  | 9.369  | 200  | 39317    | 21.9119 | ng    | 92       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.775  | 198  | 18867    | 25.9796 | ng    | 57       |
| 79)  | n-Nitrosodiphenylamine    | 8.837  | 169  | 100208   | 17.5891 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.883  | 77   | 112328   | 13.6026 | ng    | 83       |
| 82)  | 4-Bromophenyl-phenylether | 9.215  | 248  | 32816    | 25.4272 | ng    | 81       |
| 83)  | Hexachlorobenzene         | 9.289  | 284  | 34665    | 25.5041 | ng    | 71       |
| 84)  | N-Octadecane              | 9.562  | 57   | 79505    | 13.2073 | ng    | 91       |
| 85)  | Pentachlorophenol         | 9.488  | 266  | 19349    | 21.6788 | ng    | 95       |
| 86)  | Phenanthrene              | 9.715  | 178  | 164107   | 20.2529 | ng    | 99       |
| 87)  | Anthracene                | 9.772  | 178  | 169465   | 20.4542 | ng    | 98       |
| 88)  | Carbazole                 | 9.937  | 167  | 155621   | 19.7769 | ng    | 96       |
| 89)  | Di-n-butylphthalate       | 10.323 | 149  | 199606   | 18.2998 | ng    | 97       |
| 90)  | Fluoranthene              | 11.045 | 202  | 189699   | 21.8374 | ng    | 88       |
| 92)  | Pyrene                    | 11.309 | 202  | 190699   | 16.6997 | ng    | 85       |
| 93)  | Benzidine                 | 11.196 | 184  | 89235    | 22.8588 | ng    | 87       |
| 95)  | 4,4'-DDE                  | 11.434 | 246  | 41867    | 18.1012 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.832 | 235  | 73452    | 19.2139 | ng    | 94       |
| 97)  | Butylbenzylphthalate      | 12.085 | 149  | 89819    | 16.1083 | ng    | 72       |
| 98)  | 4,4'-DDT                  | 12.187 | 235  | 65635    | 19.5153 | ng    | 99       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.702 | 252  | 68656    | 23.0623 | ng    | 95       |
| 100) | Benzo[a]anthracene        | 12.733 | 228  | 188859   | 18.1814 | ng    | 99       |
| 101) | Chrysene                  | 12.776 | 228  | 175752   | 20.2465 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.787 | 149  | 124417   | 17.2731 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.537 | 149  | 207995   | 18.3618 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.955 | 252  | 166555   | 20.9680 | ng    | 91       |
| 106) | Benzo[k]fluoranthene      | 13.983 | 252  | 181483   | 21.1824 | ng    | 92       |
| 107) | Benzo[a]pyrene            | 14.307 | 252  | 166192   | 20.5758 | ng    | 91       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.682 | 276  | 183678   | 19.6708 | ng    | 81       |
| 109) | Dibenzo[a,h]anthracene    | 15.702 | 278  | 154591   | 23.9773 | ng    | 85       |
| 110) | Benzo[g,h,i]perylene      | 16.055 | 276  | 154301   | 19.6674 | ng    | 75       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@80PPM  
Data File: 9M88306.D  
Acq On : 10/ 8/18 12:15

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:36  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.546  | 96   | 38165      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.791  | 152  | 76781      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.806  | 136  | 290205     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.235  | 164  | 177627     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.693  | 188  | 306432     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.747 | 240  | 343097     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.367 | 264  | 307663     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.592  | 112  | 181209     | 82.36    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 82.36%   |       |          |
| 16) Phenol-d5                  | 5.482  | 99   | 260524     | 80.51    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 80.51%   |       |          |
| 32) Nitrobenzene-d5            | 6.240  | 128  | 36443      | 41.01    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 82.02%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.644  | 172  | 227488     | 40.10    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 80.20%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.971  | 330  | 66087      | 98.46    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 98.46%   |       |          |
| 94) Terphenyl-d14              | 11.497 | 244  | 234038     | 42.64    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 85.28%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.578  | 88   | 72759      | 76.7192  | ng    | 96       |
| 9) Pyridine                    | 3.035  | 79   | 193767     | 71.3576  | ng    | 80       |
| 10) N-Nitrosodimethylamine     | 2.958  | 74   | 113606     | 72.3837  | ng    | 80       |
| 12) Benzaldehyde               | 5.411  | 77   | 93769      | 56.3836  | ng    | 77       |
| 13) Aniline                    | 5.507  | 93   | 250831     | 78.7275  | ng    | 93       |
| 14) Pentachloroethane          | 5.550  | 117  | 66702      | 76.1866  | ng    | 74       |
| 15) bis(2-Chloroethyl) ether   | 5.567  | 93   | 182085     | 71.9395  | ng    | 85       |
| 17) Phenol                     | 5.493  | 94   | 255989     | 74.9822  | ng    | 92       |
| 18) 2-Chlorophenol             | 5.612  | 128  | 200702     | 83.2037  | ng    | 83       |
| 19) N-Decane                   | 5.663  | 57   | 227997     | 66.6661  | ng    | 73       |
| 20) 1,3-Dichlorobenzene        | 5.743  | 146  | 220754     | 85.7190  | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.806  | 146  | 224434     | 73.9989  | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.931  | 146  | 210216     | 74.6293  | ng    | 98       |
| 24) Benzyl alcohol             | 5.908  | 108  | 130107     | 68.6581  | ng    | 79       |
| 25) bis(2-chloroisopropyl) ... | 6.021  | 45   | 277621     | 52.9284  | ng    | 99       |
| 26) 2-Methylphenol             | 6.002  | 108  | 177230     | 67.4532  | ng    | 99       |
| 27) Acetophenone               | 6.121  | 105  | 288467     | 65.9418  | ng    | 72       |
| 28) Hexachloroethane           | 6.209  | 117  | 87104      | 66.5222  | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.124  | 70   | 145547     | 59.5586  | ng    | 94       |
| 30) 3&4-Methylphenol           | 6.127  | 108  | 194413     | 66.5395  | ng    | 95       |
| 33) Nitrobenzene               | 6.257  | 77   | 210990     | 66.4961  | ng    | 80       |
| 34) Isophorone                 | 6.448  | 82   | 364875     | 65.7202  | ng    | 85       |
| 35) 2-Nitrophenol              | 6.507  | 139  | 114131     | 83.2307  | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.539  | 107  | 205053     | 72.9752  | ng    | 96       |
| 37) Benzoic Acid               | 6.641  | 105  | 241284     | 98.7881  | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.610  | 93   | 227157     | 68.6806  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.695  | 162  | 173130     | 83.7874  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.760  | 180  | 187939     | 83.4494  | ng    | 96       |
| 41) Naphthalene                | 6.820  | 128  | 590679     | 74.6515  | ng    | 83       |
| 42) 4-Chloroaniline            | 6.854  | 127  | 228298     | 79.7544  | ng    | 91       |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 111804     | 89.1311  | ng    | 96       |
| 44) Caprolactam                | 7.138  | 113  | 67617      | 78.4293  | ng    | 71       |
| 45) 4-Chloro-3-methylphenol    | 7.226  | 107  | 175082     | 74.4597  | ng    | 95       |
| 46) 2-Methylnaphthalene        | 7.357  | 142  | 419650     | 77.2229  | ng    | 95       |
| 47) 1-Methylnaphthalene        | 7.437  | 142  | 405227     | 74.8801  | ng    | 89       |
| 48) Methylnaphthalenes (To...  | 7.357  | 142  | 825771m    | 151.9684 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.729  | 154  | 498995     | 72.2875  | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.491  | 216  | 210455     | 78.1038  | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.482  | 237  | 85997      | 58.6958  | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.579  | 196  | 129647     | 82.2296  | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.613  | 196  | 138377     | 82.2482  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.752  | 162  | 395915     | 73.1325  | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 8.036  | 156  | 343162     | 69.5119  | ng    | 92       |
| 58) Dimethylnaphthalenes (...) | 8.036  | 156  | 343162     | 69.5119  | ng    | 92       |
| 59) Diphenyl Ether             | 7.814  | 170  | 300848     | 73.1143  | ng    | 80       |
| 60) 2-Nitroaniline             | 7.829  | 65   | 148353     | 54.9665  | ng    | 62       |
| 61) Coumarin                   | 8.016  | 146  | 155362     | 66.2690  | ng    | 81       |
| 62) Acenaphthylene             | 8.110  | 152  | 575429     | 73.6604  | ng    | 97       |
| 63) Dimethylphthalate          | 7.979  | 163  | 456587     | 73.5720  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.033  | 165  | 111197     | 79.3457  | ng    | 60       |
| 65) Acenaphthene               | 8.263  | 153  | 409615     | 73.9368  | ng    | 95       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM  
 Data File: 9M88306.D  
 Acq On : 10/ 8/18 12:15

Operator : AH/JB  
 Sam Mult : 1 Vial# : 7  
 Misc : A,BNA

Qt Meth : 9M\_1008.M  
 Qt On : 10/08/18 12:36  
 Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.181  | 138  | 104704   | 71.3093  | ng    | 77       |
| 67)  | 2,4-Dinitrophenol         | 8.275  | 184  | 65515    | 95.1582  | ng    | 42       |
| 68)  | Dibenzofuran              | 8.420  | 168  | 571198   | 77.0832  | ng    | 87       |
| 69)  | 2,4-Dinitrotoluene        | 8.391  | 165  | 146935   | 83.1692  | ng    | 64       |
| 70)  | 4-Nitrophenol             | 8.320  | 65   | 86790    | 61.7158  | ng    | 81       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.528  | 232  | 121438   | 87.3458  | ng    | 84       |
| 72)  | Fluorene                  | 8.741  | 166  | 477898   | 72.5836  | ng    | 97       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.729  | 204  | 231296   | 77.4169  | ng    | 83       |
| 74)  | Diethylphthalate          | 8.607  | 149  | 452742   | 71.6643  | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.746  | 138  | 127909   | 65.9593  | ng    | 79       |
| 76)  | Atrazine                  | 9.374  | 200  | 151648   | 80.9249  | ng    | 94       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.778  | 198  | 86902    | 100.9167 | ng    | 64       |
| 79)  | n-Nitrosodiphenylamine    | 8.840  | 169  | 408074   | 74.8189  | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.886  | 77   | 447048   | 56.5485  | ng    | 83       |
| 82)  | 4-Bromophenyl-phenylether | 9.215  | 248  | 131108   | 87.9834  | ng    | 83       |
| 83)  | Hexachlorobenzene         | 9.289  | 284  | 139153   | 88.7896  | ng    | 66       |
| 84)  | N-Octadecane              | 9.562  | 57   | 310484   | 53.8754  | ng    | 85       |
| 85)  | Pentachlorophenol         | 9.488  | 266  | 89090    | 86.8125  | ng    | 97       |
| 86)  | Phenanthrene              | 9.718  | 178  | 674234   | 76.8990  | ng    | 98       |
| 87)  | Anthracene                | 9.775  | 178  | 698753   | 77.0544  | ng    | 99       |
| 88)  | Carbazole                 | 9.940  | 167  | 634897   | 75.3227  | ng    | 95       |
| 89)  | Di-n-butylphthalate       | 10.326 | 149  | 786596   | 70.7640  | ng    | 97       |
| 90)  | Fluoranthene              | 11.048 | 202  | 764671   | 78.9710  | ng    | 87       |
| 92)  | Pyrene                    | 11.315 | 202  | 775373   | 71.5933  | ng    | 84       |
| 93)  | Benzidine                 | 11.199 | 184  | 297367   | 91.0696  | ng    | 86       |
| 95)  | 4,4'-DDE                  | 11.434 | 246  | 172178   | 78.4903  | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.835 | 235  | 303513   | 83.7129  | ng    | 96       |
| 97)  | Butylbenzylphthalate      | 12.088 | 149  | 351691   | 66.5034  | ng    | 70       |
| 98)  | 4,4'-DDT                  | 12.190 | 235  | 279376   | 87.5854  | ng    | 98       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.707 | 252  | 253030   | 101.6886 | ng    | 94       |
| 100) | Benzo[a]anthracene        | 12.736 | 228  | 753777   | 76.5128  | ng    | 99       |
| 101) | Chrysene                  | 12.781 | 228  | 734112   | 79.3962  | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.790 | 149  | 511986   | 71.1020  | ng    | 93       |
| 104) | Di-n-octylphthalate       | 13.537 | 149  | 846002   | 68.9180  | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.955 | 252  | 717602   | 79.1330  | ng    | 93       |
| 106) | Benzo[k]fluoranthene      | 13.986 | 252  | 695650   | 72.6908  | ng    | 92       |
| 107) | Benzo[a]pyrene            | 14.310 | 252  | 690014   | 76.8766  | ng    | 91       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.685 | 276  | 751500   | 84.8552  | ng    | 79       |
| 109) | Dibenzo[a,h]anthracene    | 15.702 | 278  | 634190   | 84.8336  | ng    | 87       |
| 110) | Benzo[g,h,i]perylene      | 16.060 | 276  | 622914   | 83.7126  | ng    | 74       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@120PPM  
Data File: 9M88305.D  
Acq On : 10/ 8/18 11:52

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:10  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.546  | 96   | 37155      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.791  | 152  | 74085      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.806  | 136  | 286486     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.235  | 164  | 175647     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.693  | 188  | 305309     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.750 | 240  | 341164     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.373 | 264  | 303710     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.595  | 112  | 273608     | 127.73   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 127.73%  |       |          |
| 16) Phenol-d5                  | 5.485  | 99   | 390644     | 124.00   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 124.00%  |       |          |
| 32) Nitrobenzene-d5            | 6.243  | 128  | 55055      | 62.76    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 125.52%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.644  | 172  | 341827     | 60.93    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 121.86%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.974  | 330  | 103430     | 138.75   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 138.75%  |       |          |
| 94) Terphenyl-d14              | 11.497 | 244  | 360515     | 66.06    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 132.12%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.575  | 88   | 111622     | 120.8969 | ng    | 97       |
| 9) Pyridine                    | 3.032  | 79   | 298099     | 112.7636 | ng    | 81       |
| 10) N-Nitrosodimethylamine     | 2.956  | 74   | 175150     | 114.6299 | ng    | 81       |
| 12) Benzaldehyde               | 5.413  | 77   | 118670     | 73.2963  | ng    | 79       |
| 13) Aniline                    | 5.510  | 93   | 362461m    | 116.8570 | ng    |          |
| 14) Pentachloroethane          | 5.550  | 117  | 100163     | 117.5155 | ng    | 74       |
| 15) bis(2-Chloroethyl) ether   | 5.570  | 93   | 270565     | 109.8026 | ng    | 84       |
| 17) Phenol                     | 5.496  | 94   | 386414     | 116.2621 | ng    | 94       |
| 18) 2-Chlorophenol             | 5.615  | 128  | 302688     | 128.8944 | ng    | 80       |
| 19) N-Decane                   | 5.664  | 57   | 338218     | 101.5830 | ng    | 72       |
| 20) 1,3-Dichlorobenzene        | 5.743  | 146  | 329257     | 131.3262 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.806  | 146  | 336630     | 115.0305 | ng    | 99       |
| 23) 1,2-Dichlorobenzene        | 5.931  | 146  | 321727     | 118.3735 | ng    | 97       |
| 24) Benzyl alcohol             | 5.908  | 108  | 196890     | 107.6808 | ng    | 76       |
| 25) bis(2-chloroisopropyl)...  | 6.022  | 45   | 407568     | 80.5305  | ng    | 99       |
| 26) 2-Methylphenol             | 6.005  | 108  | 267873     | 105.6617 | ng    | 98       |
| 27) Acetophenone               | 6.124  | 105  | 438942     | 103.9909 | ng    | 71       |
| 28) Hexachloroethane           | 6.209  | 117  | 129886     | 102.8050 | ng    | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.127  | 70   | 215440     | 91.3674  | ng    | 93       |
| 30) 3&4-Methylphenol           | 6.127  | 108  | 296079     | 105.0232 | ng    | 95       |
| 33) Nitrobenzene               | 6.260  | 77   | 314286     | 100.3369 | ng    | 79       |
| 34) Isophorone                 | 6.451  | 82   | 552747     | 100.8515 | ng    | 85       |
| 35) 2-Nitrophenol              | 6.510  | 139  | 175232     | 129.4479 | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.542  | 107  | 312063     | 108.2101 | ng    | 95       |
| 37) Benzoic Acid               | 6.658  | 105  | 380271     | 147.9481 | ng    | 88       |
| 38) bis(2-Chloroethoxy)met...  | 6.613  | 93   | 338944     | 103.8096 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.698  | 162  | 264224     | 129.5329 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.760  | 180  | 288331     | 123.1166 | ng    | 97       |
| 41) Naphthalene                | 6.823  | 128  | 899812     | 111.1168 | ng    | 83       |
| 42) 4-Chloroaniline            | 6.857  | 127  | 320971m    | 121.5386 | ng    |          |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 170427     | 125.9622 | ng    | 97       |
| 44) Caprolactam                | 7.150  | 113  | 102240     | 120.1281 | ng    | 70       |
| 45) 4-Chloro-3-methylphenol    | 7.229  | 107  | 264218     | 113.8265 | ng    | 97       |
| 46) 2-Methylnaphthalene        | 7.357  | 142  | 640924     | 119.4722 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.437  | 142  | 621619     | 116.3574 | ng    | 89       |
| 48) Methylnaphthalenes (To...  | 7.357  | 142  | 1263203m   | 235.4878 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.732  | 154  | 759041     | 111.3867 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.491  | 216  | 322963     | 112.6460 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.482  | 237  | 141365     | 90.3043  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.579  | 196  | 199244     | 127.7965 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.616  | 196  | 213223     | 128.1636 | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.755  | 162  | 602842     | 112.6108 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 8.039  | 156  | 538954     | 110.4027 | ng    | 88       |
| 58) Dimethylnaphthalenes (...) | 8.039  | 156  | 538954     | 110.4027 | ng    | 88       |
| 59) Diphenyl Ether             | 7.814  | 170  | 465836     | 114.4871 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.832  | 65   | 220616     | 82.1813  | ng    | 58       |
| 61) Coumarin                   | 8.019  | 146  | 241470     | 104.1590 | ng    | 82       |
| 62) Acenaphthylene             | 8.113  | 152  | 886614     | 108.1195 | ng    | 97       |
| 63) Dimethylphthalate          | 7.982  | 163  | 699388     | 113.9660 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.036  | 165  | 173807     | 112.6291 | ng    | 59       |
| 65) Acenaphthene               | 8.266  | 153  | 625157     | 106.2420 | ng    | 95       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM

Operator : AH/JB

Qt Meth : 9M\_1008.M

Data File: 9M88305.D

Sam Mult : 1 Vial# : 6

Qt On : 10/08/18 12:10

Acq On : 10/ 8/18 11:52

Misc : A,BNA

Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.184  | 138  | 146379   | 102.3691 | ng    | 78       |
| 67) 2,4-Dinitrophenol          | 8.278  | 184  | 104516   | 131.6432 | ng    | 40       |
| 68) Dibenzofuran               | 8.420  | 168  | 875714   | 112.8944 | ng    | 87       |
| 69) 2,4-Dinitrotoluene         | 8.394  | 165  | 219999   | 120.3563 | ng    | 64       |
| 70) 4-Nitrophenol              | 8.323  | 65   | 129651   | 89.6611  | ng    | 84       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.528  | 232  | 186163   | 135.4094 | ng    | 84       |
| 72) Fluorene                   | 8.741  | 166  | 743886   | 106.8250 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.729  | 204  | 363907   | 123.1761 | ng    | 81       |
| 74) Diethylphthalate           | 8.610  | 149  | 700561   | 112.1415 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.752  | 138  | 197338   | 101.1200 | ng    | 78       |
| 76) Atrazine                   | 9.377  | 200  | 230107   | 118.8325 | ng    | 94       |
| 78) 4,6-Dinitro-2-methylph...  | 8.783  | 198  | 136733   | 143.6084 | ng    | 68       |
| 79) n-Nitrosodiphenylamine     | 8.843  | 169  | 627834   | 115.5345 | ng    | 97       |
| 81) 1,2-Diphenylhydrazine      | 8.886  | 77   | 671844   | 85.2962  | ng    | 83       |
| 82) 4-Bromophenyl-phenylether  | 9.215  | 248  | 202749   | 124.2520 | ng    | 85       |
| 83) Hexachlorobenzene          | 9.292  | 284  | 217460   | 126.4801 | ng    | 65       |
| 84) N-Octadecane               | 9.565  | 57   | 465184   | 81.0160  | ng    | 87       |
| 85) Pentachlorophenol          | 9.488  | 266  | 140038   | 124.7838 | ng    | 97       |
| 86) Phenanthrene               | 9.721  | 178  | 1047591  | 111.9404 | ng    | 99       |
| 87) Anthracene                 | 9.775  | 178  | 1081984  | 111.3100 | ng    | 99       |
| 88) Carbazole                  | 9.943  | 167  | 978684   | 109.4021 | ng    | 95       |
| 89) Di-n-butylphthalate        | 10.326 | 149  | 1215018  | 105.4793 | ng    | 97       |
| 90) Fluoranthene               | 11.051 | 202  | 1180828  | 112.9262 | ng    | 86       |
| 92) Pyrene                     | 11.315 | 202  | 1192445  | 110.7271 | ng    | 84       |
| 93) Benzidine                  | 11.201 | 184  | 419387   | 144.2028 | ng    | 83       |
| 95) 4,4'-DDE                   | 11.434 | 246  | 265284   | 121.6195 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.835 | 235  | 471360   | 130.7440 | ng    | 97       |
| 97) Butylbenzylphthalate       | 12.091 | 149  | 543369   | 103.3312 | ng    | 69       |
| 98) 4,4'-DDT                   | 12.193 | 235  | 440296   | 138.8165 | ng    | 98       |
| 99) 3,3'-Dichlorobenzidine     | 12.707 | 252  | 354331   | 158.7071 | ng    | 94       |
| 100) Benzo[a]anthracene        | 12.739 | 228  | 1163672  | 118.7888 | ng    | 99       |
| 101) Chrysene                  | 12.784 | 228  | 1151670  | 117.0853 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.790 | 149  | 786280   | 106.2540 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.537 | 149  | 1305426  | 100.0426 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.961 | 252  | 1055274  | 108.5817 | ng    | 92       |
| 106) Benzo[k]fluoranthene      | 13.992 | 252  | 1136976  | 108.8307 | ng    | 92       |
| 107) Benzo[a]pyrene            | 14.316 | 252  | 1064356  | 110.4701 | ng    | 90       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.697 | 276  | 1160616  | 132.7560 | ng    | 83       |
| 109) Dibenzo[a,h]anthracene    | 15.714 | 278  | 985702   | 120.6473 | ng    | 87       |
| 110) Benzo[g,h,i]perylene      | 16.072 | 276  | 950638   | 129.4178 | ng    | 74       |

(#)= qualifier out of range (m)= manual integration (+)= signals summed





SampleID : CAL BNA@160PPM  
Data File: 9M88304.D  
Acq On : 10/ 8/18 11:29

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:10  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.544  | 96   | 38723    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.791  | 152  | 77301    | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.806  | 136  | 295287   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.235  | 164  | 182343   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.693  | 188  | 316509   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.756 | 240  | 365032   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.384 | 264  | 313850   | 40.00    | ng      | 0.01     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.595  | 112  | 380592   | 170.48   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 170.48% |          |
| 16) Phenol-d5                  | 5.487  | 99   | 541312   | 164.87   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 164.87% |          |
| 32) Nitrobenzene-d5            | 6.246  | 128  | 75926    | 83.97    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 167.94% |          |
| 55) 2-Fluorobiphenyl           | 7.647  | 172  | 487717   | 83.74    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 167.48% |          |
| 80) 2,4,6-Tribromophenol       | 8.977  | 330  | 147551   | 174.84   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 174.84% |          |
| 94) Terphenyl-d14              | 11.500 | 244  | 512614   | 87.79    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 175.58% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.578  | 88   | 147828   | 153.6279 | ng      | 99       |
| 9) Pyridine                    | 3.027  | 79   | 402932   | 146.2475 | ng      | 80       |
| 10) N-Nitrosodimethylamine     | 2.958  | 74   | 239006   | 150.0876 | ng      | 81       |
| 12) Benzaldehyde               | 5.413  | 77   | 144919   | 85.8845  | ng      | 78       |
| 13) Aniline                    | 5.510  | 93   | 505442   | 156.3555 | ng      | 58       |
| 14) Pentachloroethane          | 5.553  | 117  | 138175   | 155.5484 | ng      | 73       |
| 15) bis(2-Chloroethyl) ether   | 5.573  | 93   | 383035   | 149.1516 | ng      | 82       |
| 17) Phenol                     | 5.499  | 94   | 535514   | 154.5981 | ng      | 96       |
| 18) 2-Chlorophenol             | 5.618  | 128  | 428078   | 174.9081 | ng      | 82       |
| 19) N-Decane                   | 5.666  | 57   | 460720   | 132.7729 | ng      | 73       |
| 20) 1,3-Dichlorobenzene        | 5.746  | 146  | 464364   | 177.7146 | ng      | 97       |
| 22) 1,4-Dichlorobenzene        | 5.808  | 146  | 477192   | 156.2782 | ng      | 97       |
| 23) 1,2-Dichlorobenzene        | 5.933  | 146  | 449282   | 158.4277 | ng      | 98       |
| 24) Benzyl alcohol             | 5.911  | 108  | 276092   | 144.7150 | ng      | 76       |
| 25) bis(2-chloroisopropyl)...  | 6.021  | 45   | 559512   | 105.9534 | ng      | 100      |
| 26) 2-Methylphenol             | 6.007  | 108  | 375980   | 142.1342 | ng      | 99       |
| 27) Acetophenone               | 6.127  | 105  | 617069   | 140.1093 | ng      | 70       |
| 28) Hexachloroethane           | 6.212  | 117  | 182186   | 138.2013 | ng      | 89       |
| 29) N-Nitroso-di-n-propyla...  | 6.129  | 70   | 302920   | 123.1227 | ng      | 91       |
| 30) 3&4-Methylphenol           | 6.129  | 108  | 421815   | 143.3985 | ng      | 95       |
| 33) Nitrobenzene               | 6.263  | 77   | 440466   | 136.4292 | ng      | 80       |
| 34) Isophorone                 | 6.453  | 82   | 764204   | 135.2772 | ng      | 84       |
| 35) 2-Nitrophenol              | 6.510  | 139  | 249137   | 178.5578 | ng      | 86       |
| 36) 2,4-Dimethylphenol         | 6.544  | 107  | 433982   | 140.9978 | ng      | 95       |
| 37) Benzoic Acid               | 6.675  | 105  | 535723   | 191.6624 | ng      | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.612  | 93   | 475171   | 141.1948 | ng      | 97       |
| 39) 2,4-Dichlorophenol         | 6.701  | 162  | 377313   | 179.4605 | ng      | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.763  | 180  | 408790   | 161.4454 | ng      | 97       |
| 41) Naphthalene                | 6.823  | 128  | 1269981  | 147.0263 | ng      | 83       |
| 42) 4-Chloroaniline            | 6.857  | 127  | 407611m  | 160.0878 | ng      |          |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 242835   | 161.1002 | ng      | 98       |
| 44) Caprolactam                | 7.158  | 113  | 141495   | 161.2961 | ng      | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.232  | 107  | 368076   | 153.8430 | ng      | 97       |
| 46) 2-Methylnaphthalene        | 7.357  | 142  | 906320   | 163.9083 | ng      | 98       |
| 47) 1-Methylnaphthalene        | 7.439  | 142  | 879111   | 159.6513 | ng      | 89       |
| 48) Methylnaphthalenes (To...  | 7.357  | 142  | 1784751m | 322.7989 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.732  | 154  | 1081887  | 154.0314 | ng      | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.491  | 216  | 463437   | 145.8146 | ng      | 96       |
| 52) Hexachlorocyclopentadiene  | 7.482  | 237  | 209174   | 120.2325 | ng      | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.581  | 196  | 285281   | 176.2618 | ng      | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.616  | 196  | 306737   | 177.6023 | ng      | 100      |
| 56) 2-Chloronaphthalene        | 7.755  | 162  | 862894   | 155.2693 | ng      | 89       |
| 57) 1,4-Dimethylnaphthalene    | 8.039  | 156  | 772334   | 152.3999 | ng      | 87       |
| 58) Dimethylnaphthalenes (...) | 8.039  | 156  | 772334   | 152.3999 | ng      | 87       |
| 59) Diphenyl Ether             | 7.814  | 170  | 667096   | 157.9296 | ng      | 76       |
| 60) 2-Nitroaniline             | 7.834  | 65   | 305992   | 109.1689 | ng      | 54       |
| 61) Coumarin                   | 8.025  | 146  | 342773   | 142.4269 | ng      | 72       |
| 62) Acenaphthylene             | 8.116  | 152  | 1255442  | 139.9724 | ng      | 97       |
| 63) Dimethylphthalate          | 7.985  | 163  | 987883   | 155.0652 | ng      | 98       |
| 64) 2,6-Dinitrotoluene         | 8.039  | 165  | 248679   | 142.2951 | ng      | 58       |
| 65) Acenaphthene               | 8.266  | 153  | 885997   | 136.2940 | ng      | 95       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM

Operator : AH/JB

Qt Meth : 9M\_1008.M

Data File: 9M88304.D

Sam Mult : 1 Vial# : 5

Qt On : 10/08/18 12:10

Acq On : 10/ 8/18 11:29

Misc : A,BNA

Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\

Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.187  | 138  | 196048   | 134.1876 | ng    | 74       |
| 67)  | 2,4-Dinitrophenol         | 8.280  | 184  | 151857   | 163.7305 | ng    | 39       |
| 68)  | Dibenzofuran              | 8.422  | 168  | 1255231  | 147.8809 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.397  | 165  | 313399   | 158.0642 | ng    | 62       |
| 70)  | 4-Nitrophenol             | 8.326  | 65   | 180629   | 116.1165 | ng    | 87       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.530  | 232  | 269683   | 188.9560 | ng    | 83       |
| 72)  | Fluorene                  | 8.744  | 166  | 1064216  | 138.7880 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.732  | 204  | 517282   | 168.6611 | ng    | 81       |
| 74)  | Diethylphthalate          | 8.613  | 149  | 984394   | 151.7892 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.758  | 138  | 273730   | 133.0163 | ng    | 79       |
| 76)  | Atrazine                  | 9.380  | 200  | 328100   | 156.5185 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.786  | 198  | 192152   | 179.6664 | ng    | 67       |
| 79)  | n-Nitrosodiphenylamine    | 8.846  | 169  | 895207   | 158.9073 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.889  | 77   | 934630   | 114.4602 | ng    | 80       |
| 82)  | 4-Bromophenyl-phenylether | 9.218  | 248  | 290538   | 158.3389 | ng    | 82       |
| 83)  | Hexachlorobenzene         | 9.292  | 284  | 309002   | 160.2039 | ng    | 65       |
| 84)  | N-Octadecane              | 9.565  | 57   | 637629   | 107.1193 | ng    | 85       |
| 85)  | Pentachlorophenol         | 9.491  | 266  | 203150   | 160.9751 | ng    | 98       |
| 86)  | Phenanthrene              | 9.721  | 178  | 1473362  | 143.3229 | ng    | 99       |
| 87)  | Anthracene                | 9.778  | 178  | 1536274  | 143.0922 | ng    | 99       |
| 88)  | Carbazole                 | 9.946  | 167  | 1385218  | 141.2778 | ng    | 95       |
| 89)  | Di-n-butylphthalate       | 10.329 | 149  | 1712478  | 138.3546 | ng    | 97       |
| 90)  | Fluoranthene              | 11.054 | 202  | 1687057  | 145.0214 | ng    | 86       |
| 92)  | Pyrene                    | 11.318 | 202  | 1697058  | 147.2802 | ng    | 84       |
| 93)  | Benzidine                 | 11.201 | 184  | 561270   | 211.6388 | ng    | 84       |
| 95)  | 4,4'-DDE                  | 11.437 | 246  | 370876   | 158.9108 | ng    | 93       |
| 96)  | 4,4'-DDD                  | 11.835 | 235  | 669354   | 173.5230 | ng    | 97       |
| 97)  | Butylbenzylphthalate      | 12.094 | 149  | 765344   | 136.0271 | ng    | 66       |
| 98)  | 4,4'-DDT                  | 12.193 | 235  | 636414   | 187.5290 | ng    | 97       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.713 | 252  | 469562   | 224.7381 | ng    | 95       |
| 100) | Benzo[a]anthracene        | 12.744 | 228  | 1662810  | 158.6425 | ng    | 99       |
| 101) | Chrysene                  | 12.790 | 228  | 1674114  | 150.3948 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.793 | 149  | 1141916  | 139.8852 | ng    | 93       |
| 104) | Di-n-octylphthalate       | 13.548 | 149  | 1854203  | 128.9598 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.972 | 252  | 1527767m | 140.2281 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 14.006 | 252  | 1537154  | 133.6111 | ng    | 92       |
| 107) | Benzo[a]pyrene            | 14.330 | 252  | 1509868  | 141.2453 | ng    | 90       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.711 | 276  | 1648275  | 182.4451 | ng    | 82       |
| 109) | Dibenzo[a,h]anthracene    | 15.731 | 278  | 1416051  | 153.8973 | ng    | 88       |
| 110) | Benzo[g,h,i]perylene      | 16.094 | 276  | 1339690  | 176.4900 | ng    | 74       |

(#)= qualifier out of range (m) = manual integration (+) = signals summed

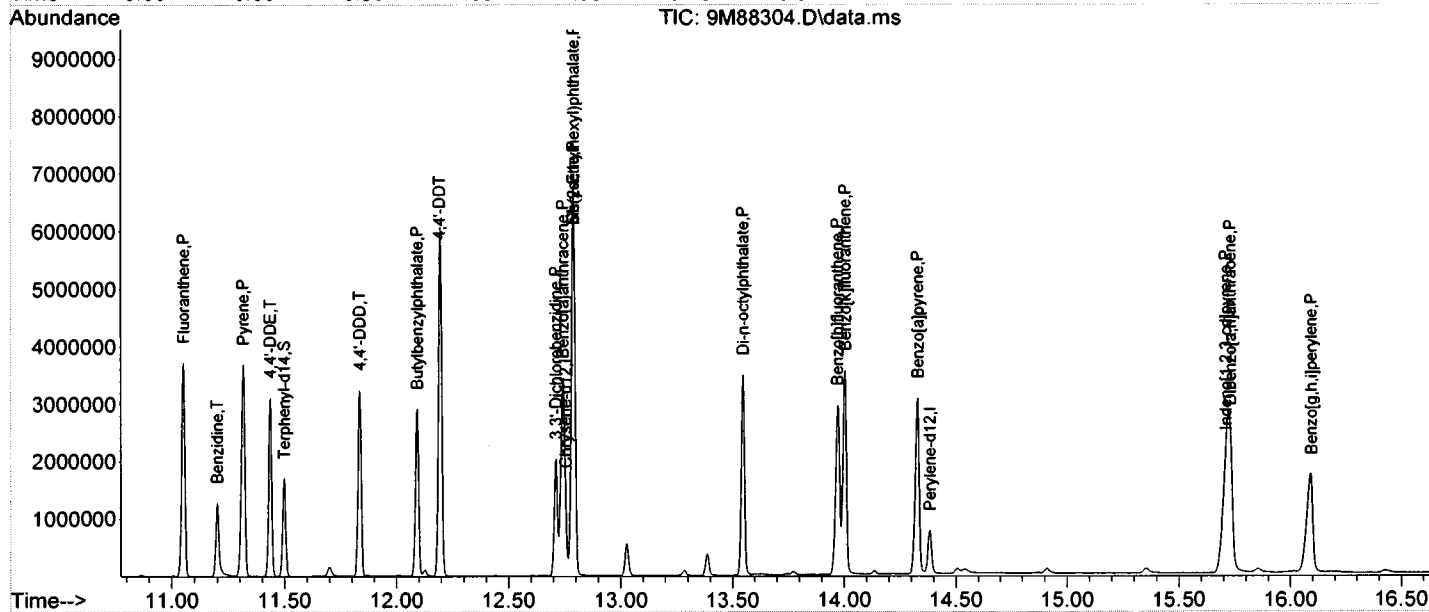
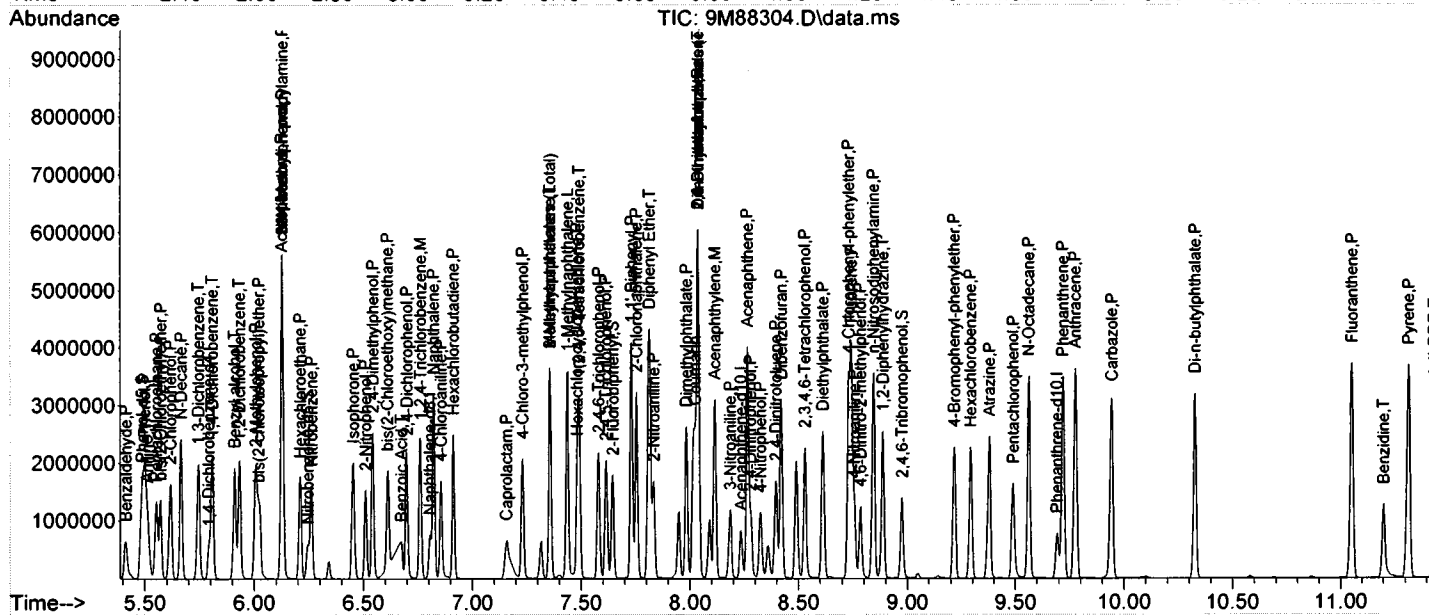
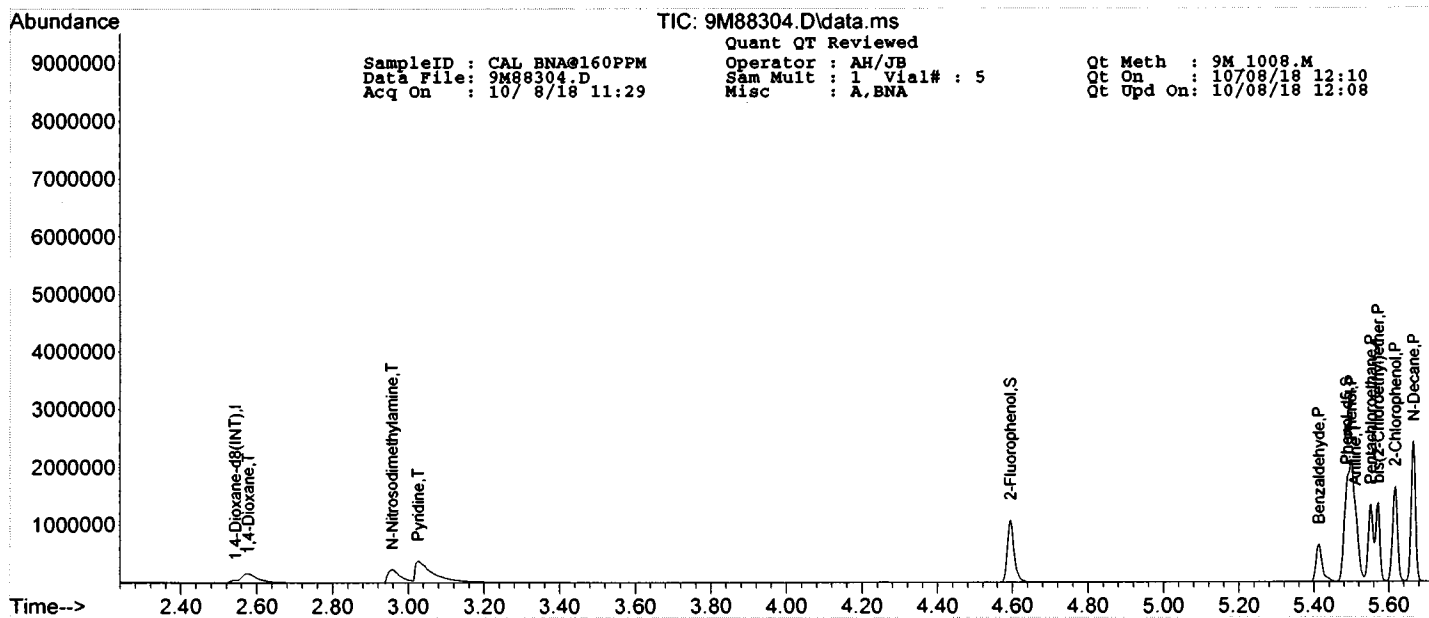
TIC: 9M88304.D\data.ms

SampleID : CAL BNA@160PPM  
Data File: 9M88304.D  
Acq On : 10/ 8/18 11:29

Quant QT Reviewed

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

```
Qt Meth   : 9M 1008.M
Qt On      : 10/08/18 12:10
Qt Upd On : 10/08/18 12:08
```



SampleID : CAL BNA@196PPM  
Data File: 9M88303.D  
Acq On : 10/ 8/18 11:05

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 12:09  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.541  | 96   | 39900      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.792  | 152  | 79169      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.806  | 136  | 308563     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.238  | 164  | 192321     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.696  | 188  | 330720     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.753 | 240  | 382634     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.378 | 264  | 329075     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.595  | 112  | 479192     | 208.31   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 208.31%  |       |          |
| 16) Phenol-d5                  | 5.490  | 99   | 689183     | 203.72   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 203.72%  |       |          |
| 32) Nitrobenzene-d5            | 6.246  | 128  | 98321      | 104.06   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 208.12%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.647  | 172  | 642539     | 104.60   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 209.20%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.980  | 330  | 197591     | 207.97   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 207.97%  |       |          |
| 94) Terphenyl-d14              | 11.500 | 244  | 672730     | 109.91   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 219.82%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.575  | 88   | 188408     | 190.0242 | ng    | 98       |
| 9) Pyridine                    | 3.021  | 79   | 513280     | 180.8037 | ng    | 81       |
| 10) N-Nitrosodimethylamine     | 2.956  | 74   | 298076     | 181.6599 | ng    | 81       |
| 12) Benzaldehyde               | 5.414  | 77   | 162903     | 93.6946  | ng    | 79       |
| 13) Aniline                    | 5.513  | 93   | 645903m    | 193.9122 | ng    |          |
| 14) Pentachloroethane          | 5.553  | 117  | 176558     | 192.8944 | ng    | 72       |
| 15) bis(2-Chloroethyl) ether   | 5.573  | 93   | 492307     | 186.0465 | ng    | 82       |
| 17) Phenol                     | 5.502  | 94   | 682147     | 191.1206 | ng    | 99       |
| 18) 2-Chlorophenol             | 5.618  | 128  | 542480     | 215.1131 | ng    | 80       |
| 19) N-Decane                   | 5.667  | 57   | 571858     | 159.9399 | ng    | 74       |
| 20) 1,3-Dichlorobenzene        | 5.746  | 146  | 595907     | 221.3294 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.809  | 146  | 616232     | 197.0514 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.934  | 146  | 579216     | 199.4264 | ng    | 98       |
| 24) Benzyl alcohol             | 5.914  | 108  | 351196     | 179.7377 | ng    | 77       |
| 25) bis(2-chloroisopropyl)...  | 6.025  | 45   | 687182     | 127.0595 | ng    | 99       |
| 26) 2-Methylphenol             | 6.008  | 108  | 486733     | 179.6613 | ng    | 99       |
| 27) Acetophenone               | 6.130  | 105  | 799554     | 177.2601 | ng    | 69       |
| 28) Hexachloroethane           | 6.209  | 117  | 234318     | 173.5533 | ng    | 90       |
| 29) N-Nitroso-di-n-propyla...  | 6.133  | 70   | 381053     | 151.2256 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.133  | 108  | 544706     | 180.8068 | ng    | 97       |
| 33) Nitrobenzene               | 6.263  | 77   | 559838     | 165.9425 | ng    | 79       |
| 34) Isophorone                 | 6.456  | 82   | 982314     | 166.4049 | ng    | 84       |
| 35) 2-Nitrophenol              | 6.510  | 139  | 317656     | 217.8704 | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.545  | 107  | 559453     | 168.9965 | ng    | 93       |
| 37) Benzoic Acid               | 6.687  | 105  | 683404     | 225.0172 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.616  | 93   | 611240     | 173.8125 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.701  | 162  | 495924     | 225.7265 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.763  | 180  | 532442     | 193.6406 | ng    | 96       |
| 41) Naphthalene                | 6.826  | 128  | 1666420    | 179.2088 | ng    | 83       |
| 42) 4-Chloroaniline            | 6.857  | 127  | 456580     | 176.9511 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 312729     | 187.8445 | ng    | 96       |
| 44) Caprolactam                | 7.170  | 113  | 177988     | 194.1663 | ng    | 71       |
| 45) 4-Chloro-3-methylphenol    | 7.235  | 107  | 480794     | 192.3090 | ng    | 97       |
| 46) 2-Methylnaphthalene        | 7.360  | 142  | 1196571    | 207.0896 | ng    | 97       |
| 47) 1-Methylnaphthalene        | 7.440  | 142  | 1151872    | 200.1859 | ng    | 90       |
| 48) Methylnaphthalenes (To...  | 7.360  | 142  | 2349617m   | 406.6791 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.732  | 154  | 1433120    | 195.2587 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.494  | 216  | 614305     | 173.9009 | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.485  | 237  | 277702     | 143.8576 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.582  | 196  | 374514     | 219.3895 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.619  | 196  | 396253     | 217.5290 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.758  | 162  | 1148827    | 195.9951 | ng    | 89       |
| 57) 1,4-Dimethylnaphthalene    | 8.042  | 156  | 1041195    | 194.7933 | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 8.042  | 156  | 1041195    | 194.7933 | ng    | 86       |
| 59) Diphenyl Ether             | 7.817  | 170  | 898105     | 201.5880 | ng    | 73       |
| 60) 2-Nitroaniline             | 7.835  | 65   | 388564     | 130.8334 | ng    | 58       |
| 61) Coumarin                   | 8.028  | 146  | 459646     | 181.0803 | ng    | 75       |
| 62) Acenaphthylene             | 8.119  | 152  | 1666883    | 168.5198 | ng    | 98       |
| 63) Dimethylphthalate          | 7.991  | 163  | 1305004    | 194.2151 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.042  | 165  | 333675     | 168.5790 | ng    | 58       |
| 65) Acenaphthene               | 8.269  | 153  | 1183433    | 163.6282 | ng    | 96       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM  
 Data File: 9M88303.D  
 Acq On : 10/ 8/18 11:05

Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

Qt Meth : 9M\_1008.M  
 Qt On : 10/08/18 12:09  
 Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIOn | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.190  | 138  | 245978   | 161.8876 | ng    | 75       |
| 67) 2,4-Dinitrophenol          | 8.283  | 184  | 203037   | 190.1331 | ng    | 40       |
| 68) Dibenzofuran               | 8.423  | 168  | 1659723  | 177.6384 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.403  | 165  | 412090   | 190.1162 | ng    | 61       |
| 70) 4-Nitrophenol              | 8.332  | 65   | 236128   | 139.5844 | ng    | 86       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.534  | 232  | 363700   | 241.6088 | ng    | 83       |
| 72) Fluorene                   | 8.747  | 166  | 1417015  | 166.8322 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.732  | 204  | 694686   | 214.7526 | ng    | 80       |
| 74) Diethylphthalate           | 8.616  | 149  | 1298391  | 189.8191 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.764  | 138  | 359349   | 163.1674 | ng    | 79       |
| 76) Atrazine                   | 9.386  | 200  | 429115   | 187.7109 | ng    | 94       |
| 78) 4,6-Dinitro-2-methylph...  | 8.792  | 198  | 252553   | 211.5674 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.849  | 169  | 1171001  | 198.9314 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.892  | 77   | 1221262  | 143.1361 | ng    | 79       |
| 82) 4-Bromophenyl-phenylether  | 9.218  | 248  | 385325   | 188.1316 | ng    | 81       |
| 83) Hexachlorobenzene          | 9.295  | 284  | 412330   | 191.2328 | ng    | 63       |
| 84) N-Octadecane               | 9.565  | 57   | 816673   | 131.3026 | ng    | 82       |
| 85) Pentachlorophenol          | 9.491  | 266  | 269585   | 191.7172 | ng    | 99       |
| 86) Phenanthrene               | 9.724  | 178  | 1951012  | 172.5813 | ng    | 100      |
| 87) Anthracene                 | 9.781  | 178  | 2047675  | 172.6650 | ng    | 100      |
| 88) Carbazole                  | 9.949  | 167  | 1822737  | 169.7130 | ng    | 95       |
| 89) Di-n-butylphthalate        | 10.332 | 149  | 2251513  | 168.6211 | ng    | 96       |
| 90) Fluoranthene               | 11.054 | 202  | 2224500  | 172.8070 | ng    | 87       |
| 92) Pyrene                     | 11.321 | 202  | 2234362  | 184.9901 | ng    | 84       |
| 95) 4,4'-DDE                   | 11.437 | 246  | 493483   | 201.7178 | ng    | 93       |
| 96) 4,4'-DDD                   | 11.838 | 235  | 880243   | 217.6964 | ng    | 97       |
| 97) Butylbenzylphthalate       | 12.094 | 149  | 991985   | 168.1982 | ng    | 69       |
| 98) 4,4'-DDT                   | 12.196 | 235  | 846016   | 237.8234 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.745 | 228  | 2188523  | 199.1937 | ng    | 99       |
| 101) Chrysene                  | 12.790 | 228  | 2219121  | 181.0846 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.793 | 149  | 1507836  | 171.3855 | ng    | 92       |
| 104) Di-n-octylphthalate       | 13.546 | 149  | 2430440  | 153.2241 | ng    | 98       |
| 105) Benzo[b]fluoranthene      | 13.969 | 252  | 2016314  | 165.9593 | ng    | 92       |
| 106) Benzo[k]fluoranthene      | 14.003 | 252  | 2094072  | 162.1122 | ng    | 92       |
| 107) Benzo[a]pyrene            | 14.327 | 252  | 1987151  | 167.4945 | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.711 | 276  | 2150838  | 227.0584 | ng    | 81       |
| 109) Dibenzo[a,h]anthracene    | 15.731 | 278  | 1865818  | 181.1559 | ng    | 87       |
| 110) Benzo[g,h,i]perylene      | 16.092 | 276  | 1729466  | 217.2976 | ng    | 75       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@.SPPM  
Data File: 9M88308.D  
Acq On : 10/ 8/18 13:02

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/08/18 13:28  
Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.    | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|---------|------|----------|--------|-------|----------|
| Internal Standards             |         |      |          |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.547   | 96   | 38089    | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.792   | 152  | 74902m   | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.803   | 136  | 287012   | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.229   | 164  | 174925   | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.690   | 188  | 307469   | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.742  | 240  | 336446   | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.378  | 264  | 301465   | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |         |      |          |        |       |          |
| 11) 2-Fluorophenol             | 0.000   | 112  | 0        | 0.00   | ng    |          |
| Spiked Amount                  | 100.000 |      | Recovery | =      | 0.00% |          |
| 16) Phenol-d5                  | 5.482   | 99   | 1708     | 0.53   | ng    | 0.00     |
| Spiked Amount                  | 100.000 |      | Recovery | =      | 0.53% |          |
| 32) Nitrobenzene-d5            | 0.000   | 128  | 0        | 0.00   | ng    |          |
| Spiked Amount                  | 50.000  |      | Recovery | =      | 0.00% |          |
| 55) 2-Fluorobiphenyl           | 0.000   | 172  | 0d       | 0.00   | ng    |          |
| Spiked Amount                  | 50.000  |      | Recovery | =      | 0.00% |          |
| 80) 2,4,6-Tribromophenol       | 0.000   | 330  | 0        | 0.00   | ng    |          |
| Spiked Amount                  | 100.000 |      | Recovery | =      | 0.00% |          |
| 94) Terphenyl-d14              | 0.000   | 244  | 0d       | 0.00   | ng    |          |
| Spiked Amount                  | 50.000  |      | Recovery | =      | 0.00% |          |
| Target Compounds               |         |      |          |        |       |          |
| 8) 1,4-Dioxane                 | 2.581   | 88   | 462m     | 0.4881 | ng    |          |
| 9) Pyridine                    | 0.000   |      | 0        | N.D.   |       |          |
| 10) N-Nitrosodimethylamine     | 0.000   |      | 0        | N.D.   |       |          |
| 12) Benzaldehyde               | 0.000   |      | 0        | N.D. d |       |          |
| 13) Aniline                    | 5.510   | 93   | 1254m    | 0.3944 | ng    |          |
| 14) Pentachloroethane          | 0.000   |      | 0        | N.D. d |       |          |
| 15) bis(2-Chloroethyl) ether   | 5.564   | 93   | 1367     | 0.5412 | ng    | 73       |
| 17) Phenol                     | 0.000   |      | 0        | N.D. d |       |          |
| 18) 2-Chlorophenol             | 0.000   |      | 0        | N.D. d |       |          |
| 19) N-Decane                   | 0.000   |      | 0        | N.D. d |       |          |
| 20) 1,3-Dichlorobenzene        | 0.000   |      | 0        | N.D. d |       |          |
| 22) 1,4-Dichlorobenzene        | 0.000   |      | 0        | N.D. d |       |          |
| 23) 1,2-Dichlorobenzene        | 0.000   |      | 0        | N.D. d |       |          |
| 24) Benzyl alcohol             | 0.000   |      | 0        | N.D. d |       |          |
| 25) bis(2-chloroisopropyl)...  | 0.000   |      | 0        | N.D. d |       |          |
| 26) 2-Methylphenol             | 6.002   | 108  | 1421     | 0.5544 | ng    | 84       |
| 27) Acetophenone               | 0.000   |      | 0        | N.D. d |       |          |
| 28) Hexachloroethane           | 0.000   |      | 0        | N.D. d |       |          |
| 29) N-Nitroso-di-n-propyla...  | 6.124   | 70   | 920      | 0.3859 | ng    | 78       |
| 30) 3&4-Methylphenol           | 6.130   | 108  | 1213     | 0.4256 | ng    | 88       |
| 33) Nitrobenzene               | 0.000   |      | 0        | N.D. d |       |          |
| 34) Isophorone                 | 0.000   |      | 0        | N.D. d |       |          |
| 35) 2-Nitrophenol              | 0.000   |      | 0        | N.D. d |       |          |
| 36) 2,4-Dimethylphenol         | 6.539   | 107  | 1298     | 0.5085 | ng    | 93       |
| 37) Benzoic Acid               | 0.000   |      | 0        | N.D.   |       |          |
| 38) bis(2-Chloroethoxy)met...  | 0.000   |      | 0        | N.D. d |       |          |
| 39) 2,4-Dichlorophenol         | 6.701   | 162  | 884      | 0.4326 | ng    | 84       |
| 40) 1,2,4-Trichlorobenzene     | 0.000   |      | 0        | N.D. d |       |          |
| 41) Naphthalene                | 6.817   | 128  | 4259     | 0.5881 | ng    | 79       |
| 42) 4-Chloroaniline            | 6.857   | 127  | 1171     | 0.3679 | ng    | 88       |
| 43) Hexachlorobutadiene        | 0.000   |      | 0        | N.D. d |       |          |
| 44) Caprolactam                | 0.000   |      | 0        | N.D.   |       |          |
| 45) 4-Chloro-3-methylphenol    | 0.000   |      | 0        | N.D. d |       |          |
| 46) 2-Methylnaphthalene        | 0.000   |      | 0        | N.D. d |       |          |
| 47) 1-Methylnaphthalene        | 0.000   |      | 0        | N.D. d |       |          |
| 48) Methylnaphthalenes (To...  | 0.000   |      | 0        | N.D. d |       |          |
| 49) 1,1'-Biphenyl              | 0.000   |      | 0        | N.D. d |       |          |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000   |      | 0        | N.D. d |       |          |
| 52) Hexachlorocyclopentadiene  | 0.000   |      | 0        | N.D.   |       |          |
| 53) 2,4,6-Trichlorophenol      | 0.000   |      | 0        | N.D. d |       |          |
| 54) 2,4,5-Trichlorophenol      | 0.000   |      | 0        | N.D. d |       |          |
| 56) 2-Chloronaphthalene        | 0.000   |      | 0        | N.D. d |       |          |
| 57) 1,4-Dimethylnaphthalene    | 0.000   |      | 0        | N.D. d |       |          |
| 58) Dimethylnaphthalenes (...) | 0.000   |      | 0        | N.D. d |       |          |
| 59) Diphenyl Ether             | 0.000   |      | 0        | N.D. d |       |          |
| 60) 2-Nitroaniline             | 0.000   |      | 0        | N.D. d |       |          |
| 61) Coumarin                   | 0.000   |      | 0        | N.D. d |       |          |
| 62) Acenaphthylene             | 0.000   |      | 0        | N.D. d |       |          |
| 63) Dimethylphthalate          | 0.000   |      | 0        | N.D. d |       |          |
| 64) 2,6-Dinitrotoluene         | 0.000   |      | 0        | N.D. d |       |          |
| 65) Acenaphthene               | 0.000   |      | 0        | N.D. d |       |          |

## Quantitation Report (QT Reviewed)

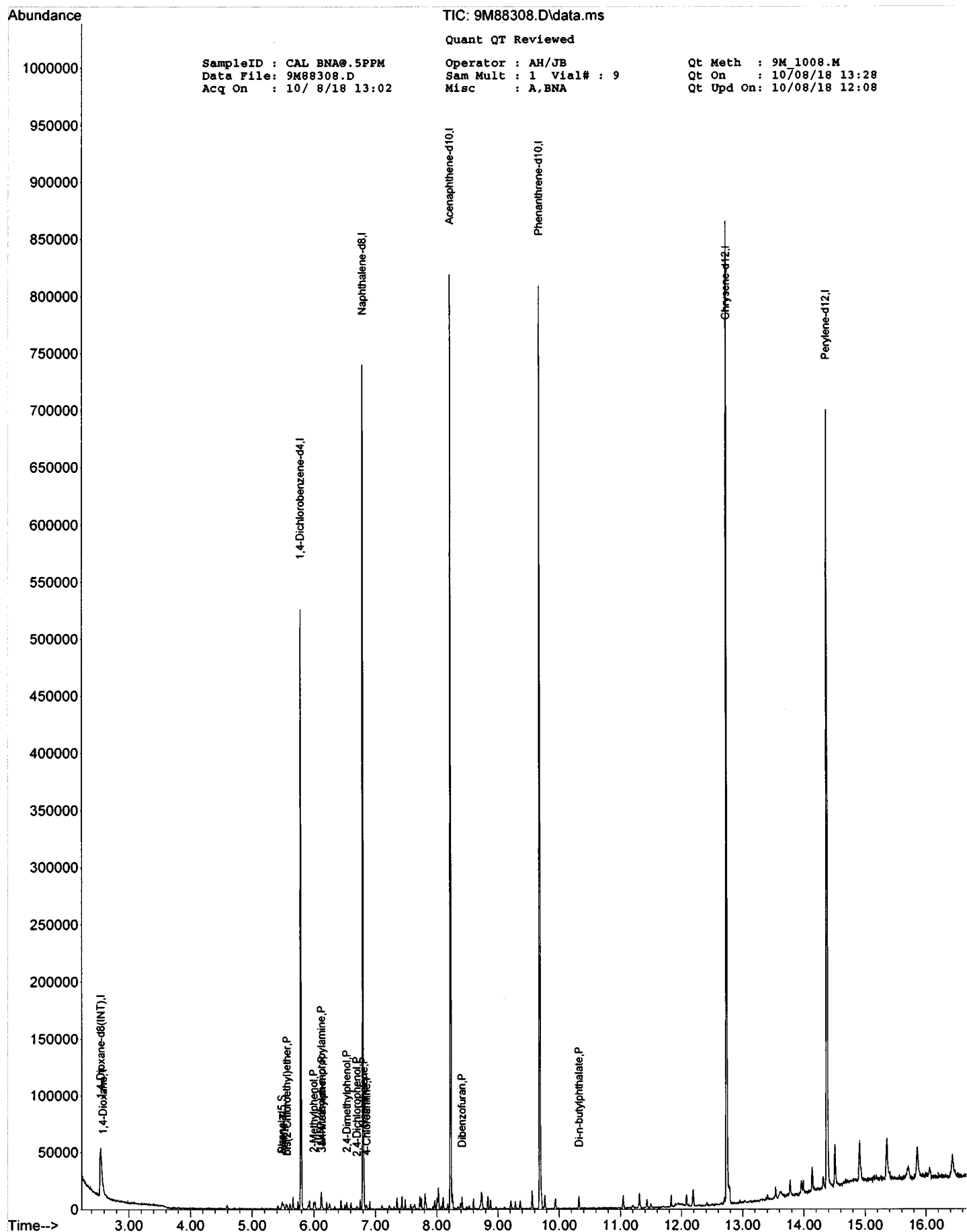
SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 9M\_1008.M  
 Data File: 9M88308.D Sam Mult : 1 Vial# : 9 Qt On : 10/08/18 13:28  
 Acq On : 10/ 8/18 13:02 Misc : A,BNA Qt Upd On: 10/08/18 12:08

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |      | 0        | N.D.   | d     |          |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.414  | 168  | 3949     | 0.6185 | ng    | 96       |
| 69) 2,4-Dinitrotoluene         | 0.000  |      | 0        | N.D.   | d     |          |
| 70) 4-Nitrophenol              | 0.000  |      | 0        | N.D.   | d     |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |      | 0        | N.D.   | d     |          |
| 72) Fluorene                   | 0.000  |      | 0        | N.D.   | d     |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |      | 0        | N.D.   | d     |          |
| 74) Diethylphthalate           | 0.000  |      | 0        | N.D.   | d     |          |
| 75) 4-Nitroaniline             | 0.000  |      | 0        | N.D.   | d     |          |
| 76) Atrazine                   | 0.000  |      | 0        | N.D.   | d     |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |      | 0        | N.D.   | d     |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |      | 0        | N.D.   | d     |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |      | 0        | N.D.   | d     |          |
| 83) Hexachlorobenzene          | 0.000  |      | 0        | N.D.   | d     |          |
| 84) N-Octadecane               | 0.000  |      | 0        | N.D.   | d     |          |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   | d     |          |
| 86) Phenanthrene               | 0.000  |      | 0        | N.D.   | d     |          |
| 87) Anthracene                 | 0.000  |      | 0        | N.D.   | d     |          |
| 88) Carbazole                  | 0.000  |      | 0        | N.D.   | d     |          |
| 89) Di-n-butylphthalate        | 10.324 | 149  | 5611     | 0.5475 | ng    | 94       |
| 90) Fluoranthene               | 0.000  |      | 0        | N.D.   | d     |          |
| 92) Pyrene                     | 0.000  |      | 0        | N.D.   | d     |          |
| 93) Benzidine                  | 0.000  |      | 0        | N.D.   | d     |          |
| 95) 4,4'-DDE                   | 0.000  |      | 0        | N.D.   | d     |          |
| 96) 4,4'-DDD                   | 0.000  |      | 0        | N.D.   | d     |          |
| 97) Butylbenzylphthalate       | 0.000  |      | 0        | N.D.   | d     |          |
| 98) 4,4'-DDT                   | 0.000  |      | 0        | N.D.   | d     |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |      | 0        | N.D.   | d     |          |
| 100) Benzo[a]anthracene        | 0.000  |      | 0        | N.D.   | d     |          |
| 101) Chrysene                  | 0.000  |      | 0        | N.D.   | d     |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |      | 0        | N.D.   | d     |          |
| 104) Di-n-octylphthalate       | 0.000  |      | 0        | N.D.   | d     |          |
| 105) Benzo[b]fluoranthene      | 0.000  |      | 0        | N.D.   | d     |          |
| 106) Benzo[k]fluoranthene      | 0.000  |      | 0        | N.D.   | d     |          |
| 107) Benzo[a]pyrene            | 0.000  |      | 0        | N.D.   | d     |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |      | 0        | N.D.   | d     |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |      | 0        | N.D.   | d     |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |      | 0        | N.D.   | d     |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





| Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |     |     |     |     |     |       |    |       |       |      |     |     | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|          |            |                 | RF1                | RF2 | RF3 | RF4 | RF5 | RF6 | RF7 | RF8 | RF9 | AVGrf | RT | Corr1 | Corr2 | %Rsd | LV1 | LV2 |          |            |                 | LV3                | LV4 | LV5 | LV6 | LV7 | LV8 | LV9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1        | 7M95177.D  | CAL BNA@50PPM   | 10/08/18 16:13     |     |     |     |     |     |     |     |     |       |    |       |       |      |     |     |          |            |                 |                    |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coefficient criteria (if applicable)

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

| Level #:               | Data File: | Cal Identifier: | Analysis Date/Time |        |        |        |           |        |        |        | Level #: | Data File: | Cal Identifier: | Analysis Date/Time |       |       |       |                                  |       |       |       |        |        |        |        |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
|------------------------|------------|-----------------|--------------------|--------|--------|--------|-----------|--------|--------|--------|----------|------------|-----------------|--------------------|-------|-------|-------|----------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|-------|-------|-----|------|-------|------|-------|-------|-------|-------|-------|-------|
|                        |            |                 | RF1                | RF2    | RF3    | RF4    | RF5       | RF6    | RF7    | RF8    |          |            |                 | RF9                | AvgRt | RT    | Corr1 | Corr2                            | %Rsd  | LV1   | LV2   | LV3    | LV4    | LV5    | LV6    | LV7    | LV8    | LV9    |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 1                      | 7M95177.D  | CAL BNA@50PPM   | 0.2407             | 0.1919 | 0.1817 | 0.2230 | 0.2729    | 0.2787 | 0.2802 | 0.2758 | 2        | 7M95175.D  | CAL BNA@20PPM   | 0.2437             | 7.43  | 0.997 | 0.998 | 17                               | 0.05  | 50.00 | 2.00  | 10.00  | 20.00  | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 3                      | 7M95169.D  | CAL BNA@10PPM   | 0.3284             | 0.3787 | 0.2747 | 0.3363 | 0.3480    | 0.3720 | 0.3550 | 0.3556 | 4        | 7M95174.D  | CAL BNA@20PPM   | 0.3447             | 7.52  | 0.999 | 0.999 | 9.4                              | 0.20  | 50.00 | 2.00  | 10.00  | 20.00  | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 5                      | 7M95173.D  | CAL BNA@80PPM   | 0.3493             | 0.3418 | 0.2903 | 0.3351 | 0.3672    | 0.3841 | 0.3753 | 0.3853 | 6        | 7M95172.D  | CAL BNA@120PPM  | 0.3547             | 7.55  | 0.999 | 0.999 | 9.1                              | 0.20  | 50.00 | 2.00  | 10.00  | 20.00  | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 7                      | 7M95171.D  | CAL BNA@160PPM  | 1.2250             | 1.4424 | 1.0815 | 1.2457 | 1.2830    | 1.3026 | 1.2893 | 1.2904 | 8        | 7M95170.D  | CAL BNA@196PPM  | 1.2775             | 7.59  | 0.999 | 0.999 | 7.9                              | 0.80  | 25.00 | 1.00  | 5.00   | 10.00  | 40.00  | 60.00  | 80.00  | 98.00  |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 9                      | 7M95176.D  | CAL BNA@0.5PPM  | 1.0650             | 1.2410 | 0.9641 | 1.0993 | 1.1021    | 1.0831 | 1.0803 | 1.0603 |          |            | 1.0977          | 7.70               | 1.00  | 1.00  | 7.0   | 0.80                             | 50.00 | 2.00  | 10.00 | 20.00  | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Compound               | Col        | Mr              | Fit:               | RF1    | RF2    | RF3    | RF4       | RF5    | RF6    | RF7    | RF8      | RF9        | AvgRt           | RT                 | Corr1 | Corr2 | %Rsd  | Calibration Level Concentrations |       |       |       |        |        |        |        |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | LV1                              | LV2   | LV3   | LV4   | LV5    | LV6    | LV7    | LV8    | LV9    |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Hexachlorocyclopenta             | 1     | 0     | Qua   | 0.2407 | 0.1919 | 0.1817 | 0.2230 | 0.2729 | 0.2787 | 0.2802 | 0.2758 | 0.2437 | 7.43 | 0.997 | 0.998 | 17  | 0.05 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2,4,6-Trichlorophenol            | 1     | 0     | Avg   | 0.3284 | 0.3787 | 0.2747 | 0.3363 | 0.3480 | 0.3720 | 0.3550 | 0.3556 | 0.3447 | 7.52 | 0.999 | 0.999 | 9.4 | 0.20 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2,4,5-Trichlorophenol            | 1     | 0     | Avg   | 0.3493 | 0.3418 | 0.2903 | 0.3351 | 0.3672 | 0.3841 | 0.3753 | 0.3853 | 0.3547 | 7.55 | 0.999 | 0.999 | 9.1 | 0.20 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2-Fluorobiphenyl                 | 1     | 0     | Avg   | 1.2250 | 1.4424 | 1.0815 | 1.2457 | 1.2830 | 1.3026 | 1.2893 | 1.2904 | 1.2775 | 7.59 | 0.999 | 0.999 | 7.9 | 0.80 | 25.00 | 1.00 | 5.00  | 10.00 | 40.00 | 60.00 | 80.00 | 98.00 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2-Chloronaphthalene              | 1     | 0     | Avg   | 1.0650 | 1.2410 | 0.9641 | 1.0993 | 1.1021 | 1.0831 | 1.0803 | 1.0603 | 1.0977 | 7.70 | 1.00  | 1.00  | 7.0 | 0.80 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 1,4-Dimethylnaphthale            | 1     | 0     | Avg   | 0.9394 | 1.1393 | 0.8470 | 0.9698 | 0.9674 | 0.9384 | 0.8982 | 0.8487 | 0.9447 | 7.97 | 0.997 | 0.999 | 9.8 |      | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Dimethylnaphthalenes             | 1     | 0     | Avg   | 0.9394 | 1.1393 | 0.8470 | 0.9698 | 0.9674 | 0.9384 | 0.8982 | 0.8487 | 0.9447 | 7.97 | 0.997 | 0.999 | 9.8 |      | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Diphenyl Ether                   | 1     | 0     | Avg   | 0.7846 | 0.9335 | 0.7004 | 0.8124 | 0.8214 | 0.8235 | 0.8033 | 0.7910 | 0.8097 | 7.76 | 0.999 | 1.00  | 7.9 |      | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2-Nitroaniline                   | 1     | 0     | Avg   | 0.3247 | 0.3308 | 0.2803 | 0.3334 | 0.3392 | 0.3393 | 0.3283 | 0.3270 | 0.3257 | 7.77 | 0.999 | 1.00  | 5.8 | 0.01 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Coumarin                         | 1     | 0     | Avg   | 0.4389 | 0.4986 | 0.4020 | 0.4511 | 0.4571 | 0.4674 | 0.4571 | 0.4533 | 0.4537 | 7.95 | 1.00  | 1.00  | 6.0 |      | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Acenaphthylene                   | 1     | 0     | Avg   | 1.5838 | 1.8286 | 1.3893 | 1.6155 | 1.6582 | 1.6680 | 1.6310 | 1.6101 | 1.628  | 8.05 | 0.999 | 0.999 | 7.4 | 0.90 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Dimethylbthalate                 | 1     | 0     | Avg   | 1.1527 | 1.3496 | 1.0173 | 1.2002 | 1.2182 | 1.2097 | 1.2035 | 1.1932 | 1.197  | 7.92 | 1.00  | 1.00  | 7.6 | 0.01 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2,6-Dinitrotoluene               | 1     | 0     | Avg   | 0.2637 | 0.2492 | 0.2184 | 0.2660 | 0.2810 | 0.2730 | 0.2623 | 0.2484 | 0.258  | 7.97 | 0.996 | 0.999 | 7.5 | 0.20 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Acenaphthene                     | 1     | 0     | Avg   | 1.0931 | 1.2600 | 0.9570 | 1.1211 | 1.1422 | 1.1276 | 1.1019 | 1.0805 | 1.11   | 8.20 | 0.999 | 1.00  | 7.5 | 0.90 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 3-Nitroaniline                   | 1     | 0     | Avg   | 0.2994 | 0.2559 | 0.2387 | 0.3080 | 0.3121 | 0.2994 | 0.2870 | 0.2842 | 0.286  | 8.11 | 0.998 | 1.00  | 9.0 | 0.01 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2,4-Dinitrophenol                | 1     | 0     | Qua   | 0.0954 | -----  | 0.0470 | 0.0669 | 0.1281 | 0.1442 | 0.1490 | 0.1524 | 0.112  | 8.20 | 0.996 | 0.998 | 38  | 0.01 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | Dibenzofuran                     | 1     | 0     | Avg   | 1.4890 | 1.7689 | 1.3173 | 1.5404 | 1.5731 | 1.5550 | 1.5545 | 1.5155 | 1.57   | 8.35 | 1.00  | 1.00  | 8.9 | 0.80 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
|                        |            |                 |                    |        |        |        |           |        |        |        |          |            |                 |                    |       |       |       | 2,4-Dinitrotoluene               | 1     | 0     | Qua   | 0.3421 | 0.2512 | 0.2503 | 0.3259 | 0.3741 | 0.3849 | 0.3865 | 0.3900 | 0.338  | 8.32 | 0.999 | 1.00  | 17  | 0.20 | 50.00 | 2.00 | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4-Nitrophenol          | 1          | 0               | Qua                | 0.1992 | 0.1389 | 0.1510 | 0.1798    | 0.2170 | 0.2214 | 0.2229 | 0.2252   | 0.194      | 8.24            | 0.998              | 0.999 | 18    | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 2,3,4,6-Tetrachlorophe | 1          | 0               | Qua                | 0.2907 | 0.2851 | 0.2322 | 0.2898    | 0.3185 | 0.3273 | 0.3309 | 0.3342   | 0.301      | 8.46            | 0.999              | 1.00  | 11    | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Fluorene               | 1          | 0               | Avg                | 1.2296 | 1.3981 | 1.0871 | 1.2546    | 1.2663 | 1.2318 | 1.1917 | 1.1493   | 1.23       | 8.67            | 0.998              | 1.00  | 7.5   | 0.90  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 4-Chlorophenyl-phenyl  | 1          | 0               | Avg                | 0.5582 | 0.6243 | 0.4943 | 0.5692    | 0.5841 | 0.5759 | 0.5629 | 0.5500   | 0.565      | 8.66            | 0.999              | 1.00  | 6.5   | 0.40  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Diethylbthalate        | 1          | 0               | Avg                | 1.1711 | 1.2768 | 1.0380 | 1.1883    | 1.2296 | 1.2377 | 1.2275 | 1.2199   | 1.20       | 8.55            | 1.00               | 1.00  | 6.0   | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 4-Nitroaniline         | 1          | 0               | Qua                | 0.3362 | 0.2658 | 0.2659 | 0.3320    | 0.3535 | 0.3579 | 0.3518 | 0.3503   | 0.327      | 8.67            | 1.00               | 1.00  | 12    | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Altazene               | 1          | 0               | Avg                | 0.3522 | 0.3473 | 0.2967 | 0.3567    | 0.3785 | 0.3843 | 0.3815 | 0.3853   | 0.360      | 9.30            | 1.00               | 1.00  | 8.3   | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 4,6-Dinitro-2-methylph | 1          | 0               | Qua                | 0.0789 | -----  | 0.0400 | 0.0603    | 0.0989 | 0.1068 | 0.1099 | 0.1132   | 0.086      | 9.70            | 0.996              | 0.999 | 32    | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| n-Nitrosodiphenylamin  | 1          | 0               | Avg                | 0.6220 | 0.6465 | 0.5304 | 0.6231    | 0.6380 | 0.6429 | 0.6345 | 0.6301   | 0.621      | 8.77            | 0.999              | 0.999 | 6.1   | 0.01  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 2,4,6-Tribromophenol   | 1          | 0               | Qua                | 0.0898 | 0.0673 | 0.0699 | 0.0863    | 0.0981 | 0.1025 | 0.1047 | 0.1075   | 0.090      | 8.90            | 0.999              | 1.00  | 17    |       | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 1,2-Diphenylhydrazine  | 1          | 0               | Avg                | 0.7069 | 0.8013 | 0.6141 | 0.7267    | 0.7144 | 0.7092 | 0.6988 | 0.6906   | 0.708      | 8.81            | 0.999              | 1.00  | 7.2   |       | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| 4-Bromophenyl-phenyl   | 1          | 0               | Avg                | 0.1869 | 0.2191 | 0.1612 | 0.1907    | 0.2026 | 0.2020 | 0.2046 | 0.2074   | 0.197      | 9.14            | 0.999              | 1.00  | 8.9   | 0.10  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Hexachlorobenzene      | 1          | 0               | Avg                | 0.1926 | 0.2157 | 0.1680 | 0.1958    | 0.2027 | 0.2066 | 0.2061 | 0.2118   | 0.200      | 9.21            | 0.994              | 0.997 | 7.5   | 0.10  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| N-Octadecane           | 1          | 0               | Avg                | 0.3828 | 0.4361 | 0.3437 | 0.3923    | 0.3883 | 0.3789 | 0.3689 | 0.3557   | 0.381      | 9.50            | 0.998              | 1.00  | 7.3   | 0.05  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Pentachlorophenol      | 1          | 0               | Qua                | 0.1135 | -----  | 0.0812 | 0.1033    | 0.1312 | 0.1368 | 0.1410 | 0.1445   | 0.122      | 9.41            | 0.998              | 0.999 | 19    | 0.05  | 50.00                            | 2.00  | 10.00 | 20.00 | 80.00  | 120.0  | 160.0  | 196.0  |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |
| Phenanthrene           | 1          | 0               | Avg                | 1.0653 | 1.2194 | 0.9303 | 1.07575</ |        |        |        |          |            |                 |                    |       |       |       |                                  |       |       |       |        |        |        |        |        |        |        |        |        |      |       |       |     |      |       |      |       |       |       |       |       |       |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound

Avg Rsd: 9.49

| Level #:                | Data File: | Cal Identifier: | Analysis Date/Time | Level #: | Data File: | Cal Identifier: | Analysis Date/Time | Calibration Level Concentrations |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
|-------------------------|------------|-----------------|--------------------|----------|------------|-----------------|--------------------|----------------------------------|--------|--------|--------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                         |            |                 |                    |          |            |                 |                    | LV1                              | LV2    | LV3    | LV4    | LV5  | LV6   | LV7   | LV8   | LV9   |      |       |       |       |       |       |       |       |       |       |
| 1                       | 7M95177.D  | CAL BNA@50PPM   | 10/08/18 16:13     | 2        | 7M95175.D  | CAL BNA@2PPM    | 10/08/18 15:27     |                                  |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
| 3                       | 7M95169.D  | CAL BNA@10PPM   | 10/08/18 13:05     | 4        | 7M95174.D  | CAL BNA@20PPM   | 10/08/18 15:03     |                                  |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
| 5                       | 7M95173.D  | CAL BNA@80PPM   | 10/08/18 14:40     | 6        | 7M95172.D  | CAL BNA@120PPM  | 10/08/18 14:16     |                                  |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
| 7                       | 7M95171.D  | CAL BNA@160PPM  | 10/08/18 13:53     | 8        | 7M95170.D  | CAL BNA@196PPM  | 10/08/18 13:29     |                                  |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
| 9                       | 7M95176.D  | CAL BNA@0.5PPM  | 10/08/18 15:50     |          |            |                 |                    |                                  |        |        |        |      |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
| Compound                | Col        | Mr              | Fit                | RF1      | RF2        | RF3             | RF4                | RF5                              | RF6    | RF7    | RF8    | RF9  | AvgRt | RT    | Corr1 | Corr2 | %Rsd |       |       |       |       |       |       |       |       |       |
| 4,4'-DDE                | 1          | 0               | Avg                | 0.2340   | 0.2542     | 0.1951          | 0.2291             | 0.2450                           | 0.2496 | 0.2537 | 0.2571 | ---- | 0.240 | 11.35 | 0.999 | 1.00  | 8.6  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| 4,4'-DDD                | 1          | 0               | Avg                | 0.3980   | 0.3964     | 0.3285          | 0.3932             | 0.4249                           | 0.4332 | 0.4418 | 0.4469 | ---- | 0.408 | 11.75 | 0.998 | 0.999 | 9.4  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| Butylbenzophthalate     | 1          | 0               | Qua                | 0.5024   | 0.4324     | 0.4348          | 0.4871             | 0.5433                           | 0.5551 | 0.5581 | 0.5608 | ---- | 0.509 | 12.00 | 1.00  | 1.00  | 11   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4,4'-DDT                | 1          | 0               | Qua                | 0.2937   | ----       | 0.1946          | 0.2496             | 0.3381                           | 0.3555 | 0.3604 | 0.3702 | ---- | 0.309 | 12.10 | 0.998 | 0.999 | 21   | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| 3,3'-Dichlorobenzidine  | 1          | 0               | Qua                | 0.3338   | 0.2373     | 0.2798          | 0.3422             | 0.3514                           | 0.3325 | 0.3247 | 0.3248 | ---- | 0.316 | 12.61 | 0.999 | 1.00  | 12   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzolanthracene        | 1          | 0               | Avg                | 1.0642   | 1.2050     | 0.9376          | 1.0668             | 1.1231                           | 1.1287 | 1.1357 | 1.1410 | ---- | 1.10  | 12.63 | 1.00  | 1.00  | 7.2  | 0.80  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Chrysene                | 1          | 0               | Avg                | 0.9916   | 1.0527     | 0.8673          | 1.0014             | 1.0392                           | 1.0569 | 1.0505 | 1.0459 | ---- | 1.01  | 12.68 | 1.00  | 1.00  | 6.3  | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| bis(2-Ethylhexyl)phthal | 1          | 0               | Qua                | 0.6840   | 0.5790     | 0.5824          | 0.6487             | 0.7450                           | 0.7529 | 0.7508 | 0.7574 | ---- | 0.688 | 12.71 | 1.00  | 1.00  | 11   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Di-n-octylphthalate     | 1          | 0               | Qua                | 1.2965   | 0.9298     | 1.0326          | 1.2104             | 1.4208                           | 1.4801 | 1.4701 | 1.4540 | ---- | 1.29  | 13.46 | 0.999 | 0.999 | 16   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzobifluoranthene     | 1          | 0               | Qua                | 1.1258   | 1.0867     | 0.9346          | 1.0683             | 1.2193                           | 1.2557 | 1.2075 | 1.2714 | ---- | 1.15  | 13.86 | 0.998 | 0.999 | 10   | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzokfluoranthene      | 1          | 0               | Avg                | 1.1389   | 1.0704     | 0.8837          | 1.1185             | 1.1216                           | 1.1457 | 1.1945 | 1.1343 | ---- | 1.10  | 13.89 | 0.999 | 0.999 | 8.6  | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzolalpyrene          | 1          | 0               | Avg                | 1.0983   | 1.0051     | 0.8668          | 1.0234             | 1.1416                           | 1.1679 | 1.1814 | 1.1950 | ---- | 1.08  | 14.21 | 1.00  | 1.00  | 10   | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Indenofl 1,2,3-cdipyren | 1          | 0               | Avg                | 1.1504   | 1.0578     | 0.9153          | 1.0934             | 1.2048                           | 1.2696 | 1.2854 | 1.3019 | ---- | 1.16  | 15.54 | 0.998 | 0.999 | 12   | 0.50  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Dibenzofl a,lanthracen  | 1          | 0               | Avg                | 0.9529   | 0.8842     | 0.7667          | 0.9094             | 1.0071                           | 1.0586 | 1.0674 | 1.0798 | ---- | 0.966 | 15.56 | 0.999 | 1.00  | 11   | 0.40  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofl a,liberylene    | 1          | 0               | Avg                | 0.9508   | 0.9261     | 0.7800          | 0.9221             | 1.0008                           | 1.0524 | 1.0567 | 1.0883 | ---- | 0.972 | 15.89 | 0.999 | 1.00  | 10   | 0.50  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria if applicable

## Note:

Avg Rsd: 9.49

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

SampleID : CAL BNA@50PPM  
Data File: 7M95177.D  
Acq On : 10/ 8/18 16:13

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 16:28  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 79420      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 134473     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.757  | 136  | 495463     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.173  | 164  | 286738     | 40.00   | ng    | -0.01    |
| 77) Phenanthrene-d10           | 9.615  | 188  | 488913     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.649 | 240  | 483764     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.273 | 264  | 413657     | 40.00   | ng    | 0.02     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 207033     | 45.33   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 45.33%  |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 298883     | 43.64   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 43.64%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 37994      | 23.21   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 46.42%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.590  | 172  | 219549     | 24.59   | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 49.18%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 54891      | 56.71   | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 56.71%  |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 198434     | 24.19   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.38%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 91256      | 48.6272 | ng    | 90       |
| 9) Pyridine                    | 2.969  | 79   | 242967     | 42.1344 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 138339     | 37.6880 | ng    | 66       |
| 12) Benzaldehyde               | 5.368  | 77   | 114062     | 33.6387 | ng    | 75       |
| 13) Aniline                    | 5.464  | 93   | 299396m    | 39.8339 | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 70755      | 44.6781 | ng    | 83       |
| 15) bis(2-Chloroethyl) ether   | 5.523  | 93   | 214983     | 44.0056 | ng    | 74       |
| 17) Phenol                     | 5.443  | 94   | 296527     | 38.2752 | ng    | 76       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 220023     | 43.3991 | ng    | 77       |
| 19) N-Decane                   | 5.630  | 57   | 189977     | 30.4874 | ng    | 84       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 234499     | 41.9303 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 239369     | 43.9189 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 225698     | 43.2386 | ng    | 96       |
| 24) Benzyl alcohol             | 5.859  | 108  | 142893     | 53.8573 | ng    | 67       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 220608     | 25.9200 | ng    | 94       |
| 26) 2-Methylphenol             | 5.950  | 108  | 194430     | 43.3181 | ng    | 97       |
| 27) Acetophenone               | 6.078  | 105  | 294282     | 41.3861 | ng    | 67       |
| 28) Hexachloroethane           | 6.169  | 117  | 87454      | 38.0853 | ng    | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 139429     | 29.5337 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.078  | 108  | 205076     | 39.2268 | ng    | 98       |
| 33) Nitrobenzene               | 6.212  | 77   | 203326     | 30.2184 | ng    | 72       |
| 34) Isophorone                 | 6.399  | 82   | 375852     | 32.6591 | ng    | 85       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 106843     | 39.6116 | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 203044     | 37.3950 | ng    | 87       |
| 37) Benzoic Acid               | 6.565  | 105  | 204339     | 50.4268 | ng    | 43       |
| 38) bis(2-Chloroethoxy)met...  | 6.565  | 93   | 257422     | 38.7396 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 171962     | 43.2826 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.714  | 180  | 187013     | 40.5980 | ng    | 98       |
| 41) Naphthalene                | 6.773  | 128  | 642691     | 45.8550 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 246877m    | 51.1016 | ng    |          |
| 43) Hexachlorobutadiene        | 6.869  | 225  | 95716      | 35.7807 | ng    | 96       |
| 44) Caprolactam                | 7.067  | 113  | 70501      | 43.8466 | ng    | 58       |
| 45) 4-Chloro-3-methylphenol    | 7.168  | 107  | 167571     | 35.0828 | ng    | 73       |
| 46) 2-Methylnaphthalene        | 7.302  | 142  | 431855     | 42.6034 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.382  | 142  | 412833     | 42.3776 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.382  | 142  | 844995m    | 84.9619 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.676  | 154  | 493540     | 40.8329 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.435  | 216  | 184622     | 45.3333 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.430  | 237  | 86283      | 58.1151 | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 117733m    | 42.8749 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 125203     | 42.6593 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.697  | 162  | 381729     | 44.1725 | ng    | 89       |
| 57) 1,4-Dimethylnaphthalene    | 7.975  | 156  | 336709     | 52.6922 | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 7.975  | 156  | 336709     | 52.6922 | ng    | 86       |
| 59) Diphenyl Ether             | 7.761  | 170  | 281232     | 46.4680 | ng    | 76       |
| 60) 2-Nitroaniline             | 7.767  | 65   | 116388     | 28.5465 | ng    | 48       |
| 61) Coumarin                   | 7.948  | 146  | 157315     | 46.8207 | ng    | 84       |
| 62) Acenaphthylene             | 8.050  | 152  | 567690     | 46.5784 | ng    | 98       |
| 63) Dimethylphthalate          | 7.916  | 163  | 413168     | 40.6331 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 94526      | 41.8198 | ng    | 59       |
| 65) Acenaphthene               | 8.199  | 153  | 391790     | 45.3439 | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL\_BNA@50PPM  
 Data File: 7M95177.D  
 Acq On : 10/ 8/18 16:13

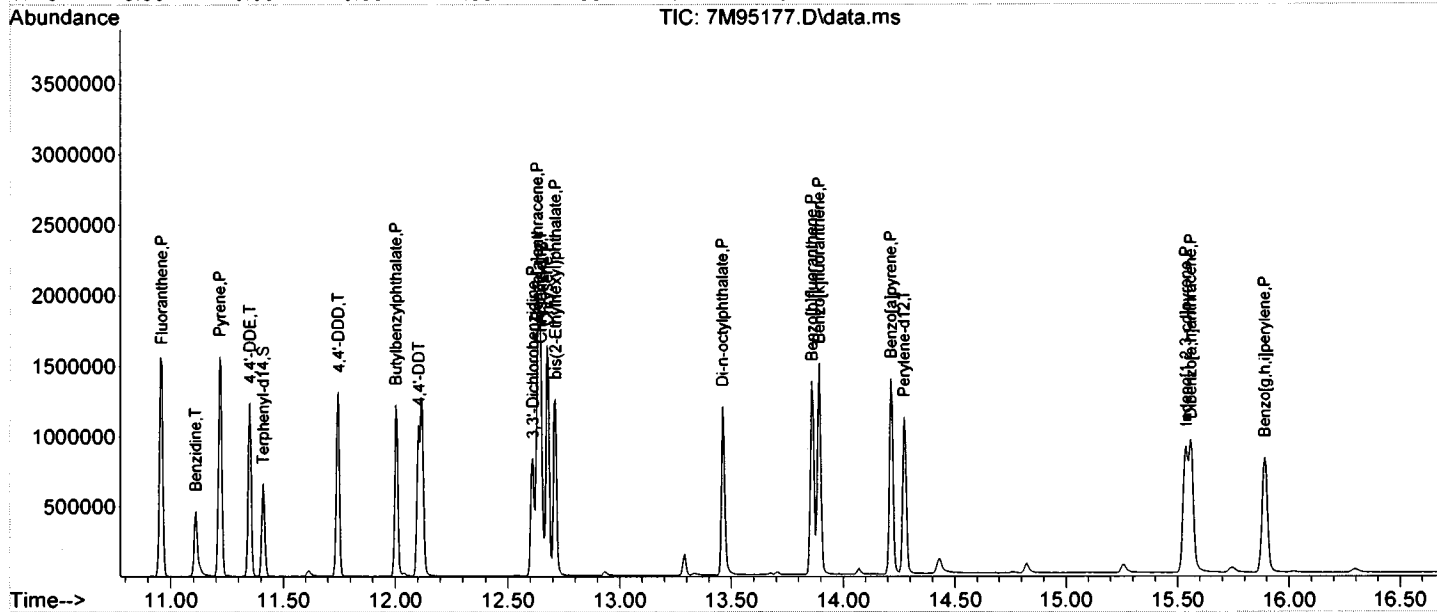
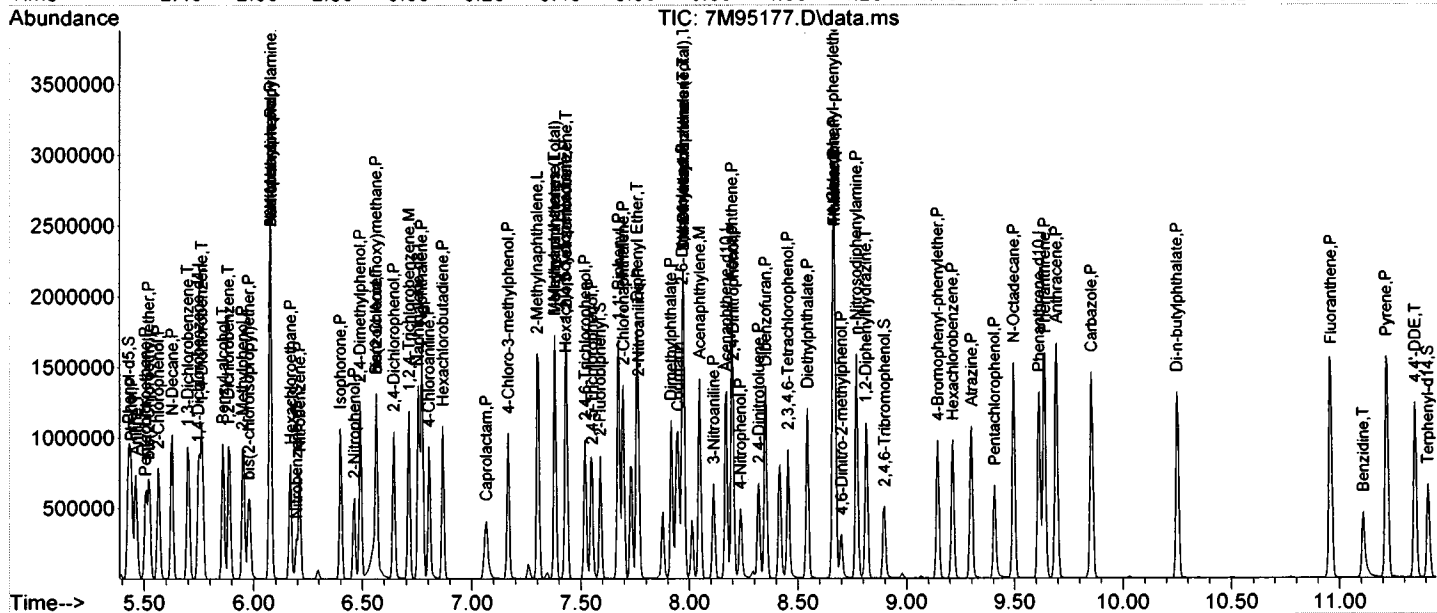
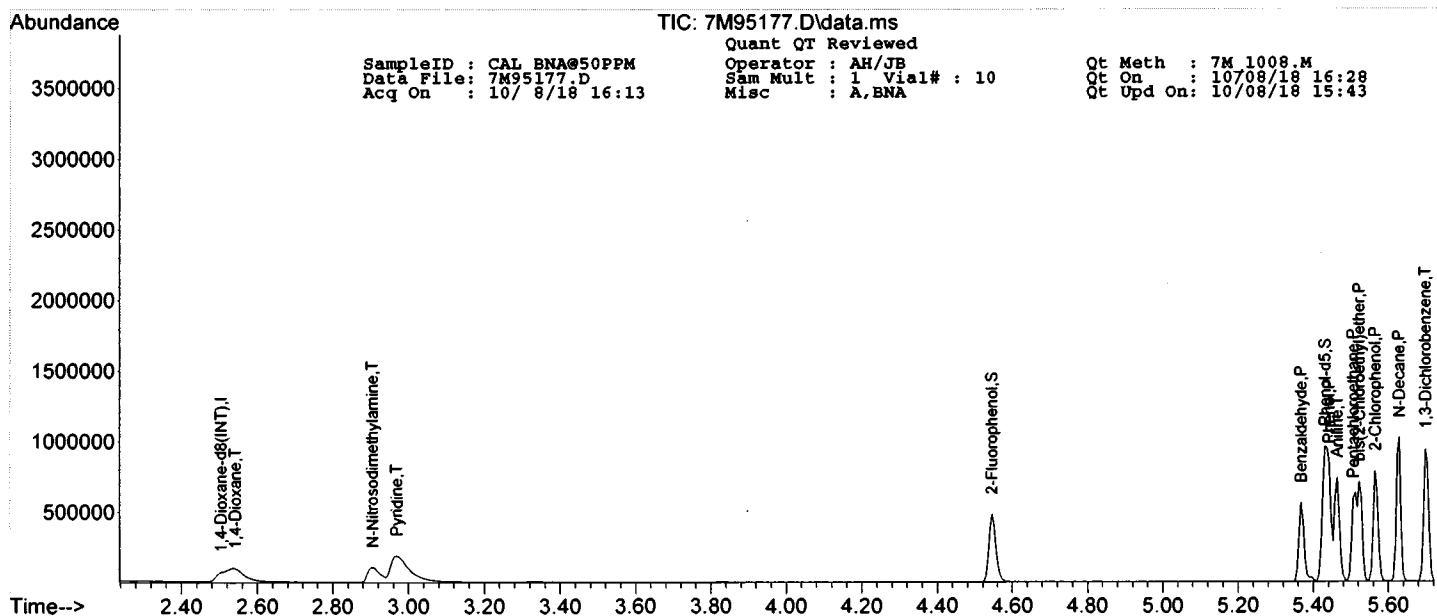
Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 16:28  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QI on | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|-------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.114  | 138   | 107344   | 49.0007 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.205  | 184   | 34202    | 27.6422 | ng    | 56       |
| 68) Dibenzofuran               | 8.354  | 168   | 533718   | 45.0039 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.322  | 165   | 122630   | 39.0033 | ng    | 58       |
| 70) 4-Nitrophenol              | 8.237  | 65    | 71415    | 28.8366 | ng    | 85       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232   | 104208   | 41.1236 | ng    | 84       |
| 72) Fluorene                   | 8.669  | 166   | 440724   | 43.2342 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.664  | 204   | 200072   | 40.7141 | ng    | 84       |
| 74) Diethylphthalate           | 8.547  | 149   | 419755   | 41.4422 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.669  | 138   | 120518   | 45.6404 | ng    | 67       |
| 76) Atrazine                   | 9.300  | 200   | 126241   | 42.1613 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.701  | 198   | 48249    | 31.1469 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169   | 380175   | 44.2427 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.814  | 77    | 432030   | 36.5939 | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.145  | 248   | 114249   | 41.2681 | ng    | 85       |
| 83) Hexachlorobenzene          | 9.214  | 284   | 117738   | 43.7251 | ng    | 69       |
| 84) N-Octadecane               | 9.497  | 57    | 233961   | 29.7075 | ng    | 66       |
| 85) Pentachlorophenol          | 9.407  | 266   | 69369    | 43.7770 | ng    | 97       |
| 86) Phenanthrene               | 9.642  | 178   | 651080   | 43.8552 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178   | 671550   | 43.8706 | ng    | 99       |
| 88) Carbazole                  | 9.855  | 167   | 601318   | 43.4630 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.251 | 149   | 714929   | 39.9045 | ng    | 97       |
| 90) Fluoranthene               | 10.961 | 202   | 673087   | 40.9285 | ng    | 92       |
| 92) Pyrene                     | 11.218 | 202   | 684987   | 42.9959 | ng    | 93       |
| 93) Benzidine                  | 11.111 | 184   | 214188   | 38.2008 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.351 | 246   | 141506   | 47.1720 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.747 | 235   | 240700   | 47.1382 | ng    | 96       |
| 97) Butylbenzylphthalate       | 12.003 | 149   | 303851   | 40.1649 | ng    | 75       |
| 98) 4,4'-DDT                   | 12.104 | 235   | 177614   | 40.6430 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252   | 201859   | 46.7367 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.633 | 228   | 643545   | 43.9109 | ng    | 99       |
| 101) Chrysene                  | 12.676 | 228   | 599672   | 43.4671 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.713 | 149   | 413643   | 41.4502 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.461 | 149   | 670427   | 38.4609 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.862 | 252   | 582139m  | 42.7154 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.894 | 252   | 588897m  | 44.6607 | ng    |          |
| 107) Benzo[a]pyrene            | 14.215 | 252   | 567904   | 43.9305 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.540 | 276   | 594866   | 46.3525 | ng    | 87       |
| 109) Dibenzo[a,h]anthracene    | 15.561 | 278   | 492754   | 51.8691 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.892 | 276   | 491669   | 45.9875 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@2PPM  
Data File: 7M95175.D  
Acq On : 10/ 8/18 15:27

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:45  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|------------|--------|-------|----------|
| -----                          |        |      |            |        |       |          |
| Internal Standards             |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 82999      | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 140993     | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.762  | 136  | 521955     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.178  | 164  | 299110     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.620  | 188  | 516763     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12               | 12.644 | 240  | 500060     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12              | 14.252 | 264  | 434960     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |        |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 9779m      | 2.05   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 2.05%  |       |          |
| 16) Phenol-d5                  | 5.426  | 99   | 13574      | 1.90   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 1.90%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 1648       | 0.96   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 1.92%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.601  | 172  | 10786      | 1.16   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 2.32%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.904  | 330  | 1739       | 2.07   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 2.07%  |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 8691       | 1.02   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 2.04%  |       |          |
| Target Compounds               |        |      |            |        |       |          |
|                                |        |      |            |        |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.547  | 88   | 4907m      | 2.5830 | ng    |          |
| 9) Pyridine                    | 2.990  | 79   | 12363      | 2.1228 | ng    | 53       |
| 10) N-Nitrosodimethylamine     | 2.916  | 74   | 6725       | 1.7531 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 5068       | 1.3822 | ng    | 73       |
| 13) Aniline                    | 5.464  | 93   | 10184      | 1.2965 | ng    | 92       |
| 14) Pentachloroethane          | 5.507  | 117  | 3403       | 2.1384 | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.523  | 93   | 10596      | 2.1794 | ng    | 71       |
| 17) Phenol                     | 5.437  | 94   | 14239      | 1.7587 | ng    | 78       |
| 18) 2-Chlorophenol             | 5.565  | 128  | 10365      | 1.9563 | ng    | 73       |
| 19) N-Decane                   | 5.624  | 57   | 9977       | 1.5409 | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 11667      | 1.9962 | ng    | 90       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 11891      | 2.0808 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 11236      | 2.0530 | ng    | 98       |
| 24) Benzyl alcohol             | 5.859  | 108  | 6891       | 2.7402 | ng    | 63       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 11229      | 1.2583 | ng    | 93       |
| 26) 2-Methylphenol             | 5.950  | 108  | 9036       | 2.0392 | ng    | 99       |
| 27) Acetophenone               | 6.073  | 105  | 14796      | 1.9846 | ng    | 75       |
| 28) Hexachloroethane           | 6.169  | 117  | 4113       | 1.7083 | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 7259       | 1.4161 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 9523       | 1.7373 | ng    | 96       |
| 33) Nitrobenzene               | 6.206  | 77   | 9873       | 1.3929 | ng    | 83       |
| 34) Isophorone                 | 6.399  | 82   | 17430      | 1.4377 | ng    | 84       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 4288       | 1.5091 | ng    | 81       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 9386       | 1.6607 | ng    | 92       |
| 37) Benzoic Acid               | 6.516  | 105  | 4768       | 1.1938 | ng    | 40       |
| 38) bis(2-Chloroethoxy)met...  | 6.564  | 93   | 12070      | 1.7242 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 7427       | 1.8502 | ng    | 90       |
| 40) 1,2,4-Trichlorobenzene     | 6.714  | 180  | 9398       | 1.9366 | ng    | 96       |
| 41) Naphthalene                | 6.778  | 128  | 30872      | 2.1842 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.810  | 127  | 8415       | 1.6534 | ng    | 95       |
| 43) Hexachlorobutadiene        | 6.874  | 225  | 4672       | 1.6578 | ng    | 95       |
| 44) Caprolactam                | 7.045  | 113  | 2593       | 1.5308 | ng    | 65       |
| 45) 4-Chloro-3-methylphenol    | 7.168  | 107  | 7595       | 1.5094 | ng    | 84       |
| 46) 2-Methylnaphthalene        | 7.312  | 142  | 20637      | 1.9326 | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.392  | 142  | 20337      | 1.9816 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.312  | 142  | 41029m     | 3.9160 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.681  | 154  | 24292      | 1.9078 | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.441  | 216  | 9230       | 2.1726 | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.441  | 237  | 2871       | 2.3093 | ng    | 96       |
| 53) 2,4,6-Trichlorophenol      | 7.526  | 196  | 5664       | 1.9773 | ng    | 97       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 5112       | 1.6697 | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.702  | 162  | 18561      | 2.0590 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.980  | 156  | 17040      | 2.5563 | ng    | 85       |
| 58) Dimethylnaphthalenes (...) | 7.980  | 156  | 17040      | 2.5563 | ng    | 85       |
| 59) Diphenyl Ether             | 7.766  | 170  | 13961      | 2.2114 | ng    | 81       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 4948       | 1.1634 | ng    | 71       |
| 61) Coumarin                   | 7.953  | 146  | 7458       | 2.1279 | ng    | 91       |
| 62) Acenaphthylene             | 8.055  | 152  | 27348      | 2.1511 | ng    | 99       |
| 63) Dimethylphthalate          | 7.921  | 163  | 20185      | 1.9030 | ng    | 96       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 3727       | 1.5807 | ng    | 65       |
| 65) Acenaphthene               | 8.204  | 153  | 18845      | 2.0908 | ng    | 97       |



## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM  
 Data File: 7M95175.D  
 Acq On : 10/ 8/18 15:27

Operator : AH/JB  
 Sam Mult : 1 Vial# : 8  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:45  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.119  | 138  | 3828     | 1.6751 | ng    | 74       |
| 67)  | 2,4-Dinitrophenol         | 0.000  |      | 0        | N.D.   |       |          |
| 68)  | Dibenzofuran              | 8.359  | 168  | 26456    | 2.1666 | ng    | 86       |
| 69)  | 2,4-Dinitrotoluene        | 8.327  | 165  | 3757     | 1.1455 | ng    | 62       |
| 70)  | 4-Nitrophenol             | 8.242  | 65   | 2078     | 0.8044 | ng    | 99       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.466  | 232  | 4265     | 1.6135 | ng    | 86       |
| 72)  | Fluorene                  | 8.680  | 166  | 20910    | 1.9664 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.675  | 204  | 9338     | 1.8217 | ng    | 82       |
| 74)  | Diethylphthalate          | 8.552  | 149  | 19096    | 1.8074 | ng    | 95       |
| 75)  | 4-Nitroaniline            | 8.669  | 138  | 3976     | 1.4434 | ng    | 80       |
| 76)  | Atrazine                  | 9.300  | 200  | 5195     | 1.6632 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 0.000  |      | 0        | N.D. d |       |          |
| 79)  | n-Nitrosodiphenylamine    | 8.776  | 169  | 16706    | 1.8394 | ng    | 100      |
| 81)  | 1,2-Diphenylhydrazine     | 8.824  | 77   | 20705    | 1.6592 | ng    | 81       |
| 82)  | 4-Bromophenyl-phenylether | 9.150  | 248  | 5662     | 1.9350 | ng    | 80       |
| 83)  | Hexachlorobenzene         | 9.219  | 284  | 5574     | 1.9585 | ng    | 71       |
| 84)  | N-Octadecane              | 9.503  | 57   | 11270    | 1.3539 | ng    | 67       |
| 85)  | Pentachlorophenol         | 0.000  |      | 0        | N.D. d |       |          |
| 86)  | Phenanthrene              | 9.642  | 178  | 31508    | 2.0079 | ng    | 99       |
| 87)  | Anthracene                | 9.695  | 178  | 29620    | 1.8307 | ng    | 97       |
| 88)  | Carbazole                 | 9.861  | 167  | 27209    | 1.8607 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.256 | 149  | 28117    | 1.4848 | ng    | 97       |
| 90)  | Fluoranthene              | 10.961 | 202  | 30466    | 1.7527 | ng    | 97       |
| 92)  | Pyrene                    | 11.223 | 202  | 30783    | 1.8692 | ng    | 89       |
| 93)  | Benzidine                 | 11.111 | 184  | 3798     | 0.6284 | ng    | 88       |
| 95)  | 4,4'-DDE                  | 11.351 | 246  | 6356     | 2.0498 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.746 | 235  | 9912     | 1.8779 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.008 | 149  | 10812    | 1.3826 | ng    | 68       |
| 98)  | 4,4'-DDT                  | 12.104 | 235  | 3868     | 0.8563 | ng    | 95       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.612 | 252  | 5935     | 1.2571 | ng    | 99       |
| 100) | Benzo[a]anthracene        | 12.633 | 228  | 30129    | 1.9888 | ng    | 99       |
| 101) | Chrysene                  | 12.676 | 228  | 26321    | 1.8457 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 14479    | 1.4036 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.456 | 149  | 20222    | 1.1033 | ng    | 97       |
| 105) | Benzo[b]fluoranthene      | 13.846 | 252  | 23634    | 1.6492 | ng    | 95       |
| 106) | Benzo[k]fluoranthene      | 13.878 | 252  | 23280    | 1.6790 | ng    | 93       |
| 107) | Benzo[a]pyrene            | 14.193 | 252  | 21859    | 1.6081 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.507 | 276  | 23007    | 1.7049 | ng    | 93       |
| 109) | Dibenzo[a,h]anthracene    | 15.529 | 278  | 19231    | 2.1975 | ng    | 92       |
| 110) | Benzo[g,h,i]perylene      | 15.855 | 276  | 20141    | 1.7916 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@10PPM  
Data File: 7M95169.D  
Acq On : 10/ 8/18 13:05

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 13:23  
Qt Upd On: 10/08/18 12:13

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSData\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 80619      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 137139     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.773  | 136  | 504127     | 40.00   | ng    | -0.02    |
| 50) Acenaphthene-d10           | 8.204  | 164  | 290829     | 40.00   | ng    | -0.03    |
| 77) Phenanthrene-d10           | 9.642  | 188  | 495869     | 40.00   | ng    | -0.02    |
| 91) Chrysene-d12               | 12.655 | 240  | 480420     | 40.00   | ng    | -0.02    |
| 103) Perylene-d12              | 14.279 | 264  | 431710     | 40.00   | ng    | -0.05    |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 37178      | 8.02    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 8.02%   |       |          |
| 16) Phenol-d5                  | 5.426  | 99   | 53308      | 7.67    | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 7.67%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 6742       | 4.05    | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 8.10%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.627  | 172  | 39318      | 4.34    | ng    | -0.02    |
| Spiked Amount 50.000           |        |      | Recovery = | 8.68%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.931  | 330  | 8670       | 10.40   | ng    | -0.03    |
| Spiked Amount 100.000          |        |      | Recovery = | 10.40%  |       |          |
| 94) Terphenyl-d14              | 11.420 | 244  | 34071      | 4.18    | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 8.36%   |       |          |
| Target Compounds               |        |      |            |         |       |          |
|                                |        |      |            |         |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.547  | 88   | 18536      | 9.9931  | ng    | 81       |
| 9) Pyridine                    | 2.980  | 79   | 43473      | 7.6484  | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.910  | 74   | 26041      | 6.9889  | ng    | 68       |
| 12) Benzaldehyde               | 5.368  | 77   | 25638      | 7.2430  | ng    | 72       |
| 13) Aniline                    | 5.464  | 93   | 50534      | 6.6234  | ng    | 81       |
| 14) Pentachloroethane          | 5.507  | 117  | 12838      | 8.2578  | ng    | 85       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 39648      | 8.3341  | ng    | 75       |
| 17) Phenol                     | 5.437  | 94   | 53746      | 6.8343  | ng    | 78       |
| 18) 2-Chlorophenol             | 5.565  | 128  | 38899      | 7.5586  | ng    | 75       |
| 19) N-Decane                   | 5.629  | 57   | 35839      | 5.6939  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 42634      | 7.5099  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 42824      | 7.7045  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 40122      | 7.5370  | ng    | 99       |
| 24) Benzyl alcohol             | 5.859  | 108  | 25434      | 10.2386 | ng    | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 40478      | 4.6634  | ng    | 95       |
| 26) 2-Methylphenol             | 5.950  | 108  | 35089      | 8.0683  | ng    | 94       |
| 27) Acetophenone               | 6.078  | 105  | 54578      | 7.5263  | ng    | 69       |
| 28) Hexachloroethane           | 6.169  | 117  | 15414      | 6.5821  | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 26196      | 5.2788  | ng    | 85       |
| 30) 3&4-Methylphenol           | 6.078  | 108  | 36629      | 6.8702  | ng    | 97       |
| 33) Nitrobenzene               | 6.212  | 77   | 35564      | 5.1947  | ng    | 79       |
| 34) Isophorone                 | 6.404  | 82   | 68441      | 5.8449  | ng    | 87       |
| 35) 2-Nitrophenol              | 6.468  | 139  | 17658      | 6.4341  | ng    | 81       |
| 36) 2,4-Dimethylphenol         | 6.500  | 107  | 35804      | 6.5482  | ng    | 83       |
| 37) Benzoic Acid               | 6.532  | 105  | 24698      | 6.3568  | ng    | 41       |
| 38) bis(2-Chloroethoxy)met...  | 6.575  | 93   | 46462      | 6.8719  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.655  | 162  | 29269      | 7.5056  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.730  | 180  | 33719      | 7.1941  | ng    | 96       |
| 41) Naphthalene                | 6.789  | 128  | 113126     | 8.2358  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.826  | 127  | 40516m     | 8.2424  | ng    |          |
| 43) Hexachlorobutadiene        | 6.890  | 225  | 17062      | 6.2685  | ng    | 95       |
| 44) Caprolactam                | 7.072  | 113  | 12143m     | 7.4223  | ng    |          |
| 45) 4-Chloro-3-methylphenol    | 7.195  | 107  | 29319      | 6.0328  | ng    | 70       |
| 46) 2-Methylnaphthalene        | 7.334  | 142  | 75262      | 7.2971  | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.414  | 142  | 73580      | 7.4232  | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.334  | 142  | 148958m    | 14.7199 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.708  | 154  | 90256      | 7.3390  | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.467  | 216  | 33284      | 8.0578  | ng    | 95       |
| 52) Hexachlorocyclopentadiene  | 7.462  | 237  | 13211      | 10.5462 | ng    | 92       |
| 53) 2,4,6-Trichlorophenol      | 7.553  | 196  | 19974      | 7.1716  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.579  | 196  | 21112      | 7.0921  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.729  | 162  | 70098      | 7.9974  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.012  | 156  | 61589      | 9.5026  | ng    | 84       |
| 58) Dimethylnaphthalenes (...) | 8.012  | 156  | 61589      | 9.5026  | ng    | 84       |
| 59) Diphenyl Ether             | 7.798  | 170  | 50925      | 8.2960  | ng    | 76       |
| 60) 2-Nitroaniline             | 7.798  | 65   | 20381      | 4.9285  | ng    | 71       |
| 61) Coumarin                   | 7.980  | 146  | 29233      | 8.5781  | ng    | 84       |
| 62) Acenaphthylene             | 8.082  | 152  | 101017     | 8.1718  | ng    | 99       |
| 63) Dimethylphthalate          | 7.953  | 163  | 73965      | 7.1718  | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.001  | 165  | 15882      | 6.9276  | ng    | 65       |
| 65) Acenaphthene               | 8.236  | 153  | 69587      | 7.9404  | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM  
 Data File: 7M95169.D  
 Acq On : 10/ 8/18 13:05

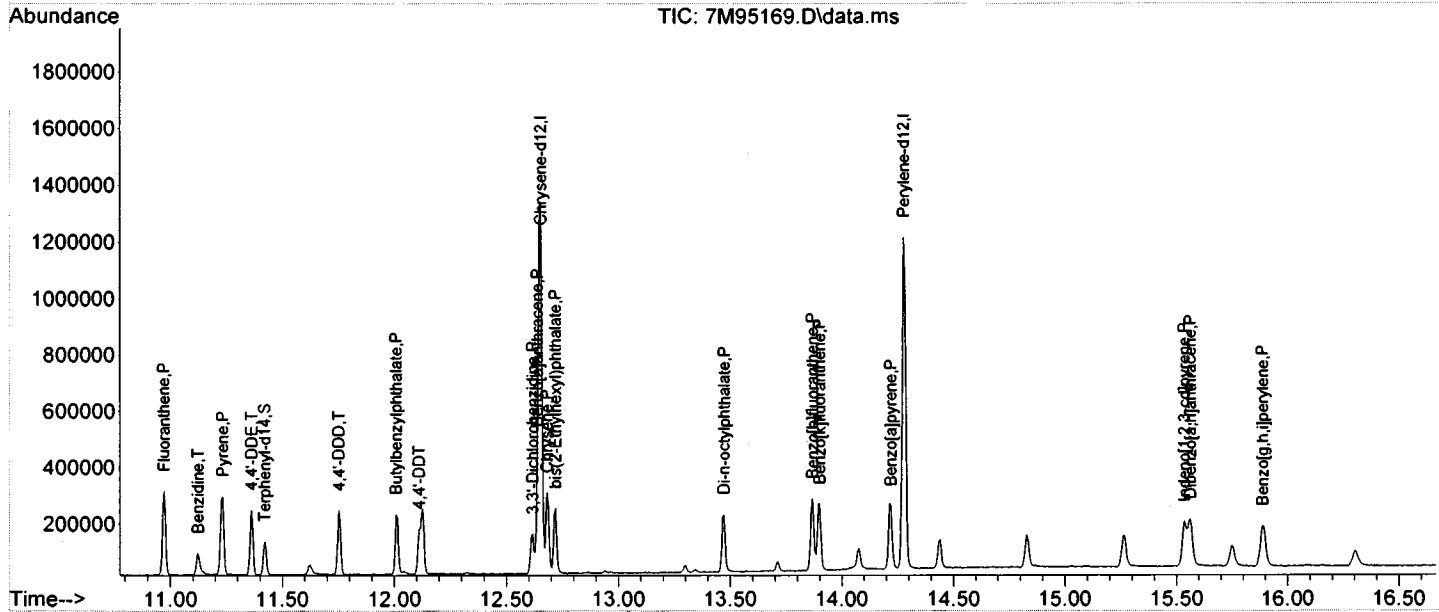
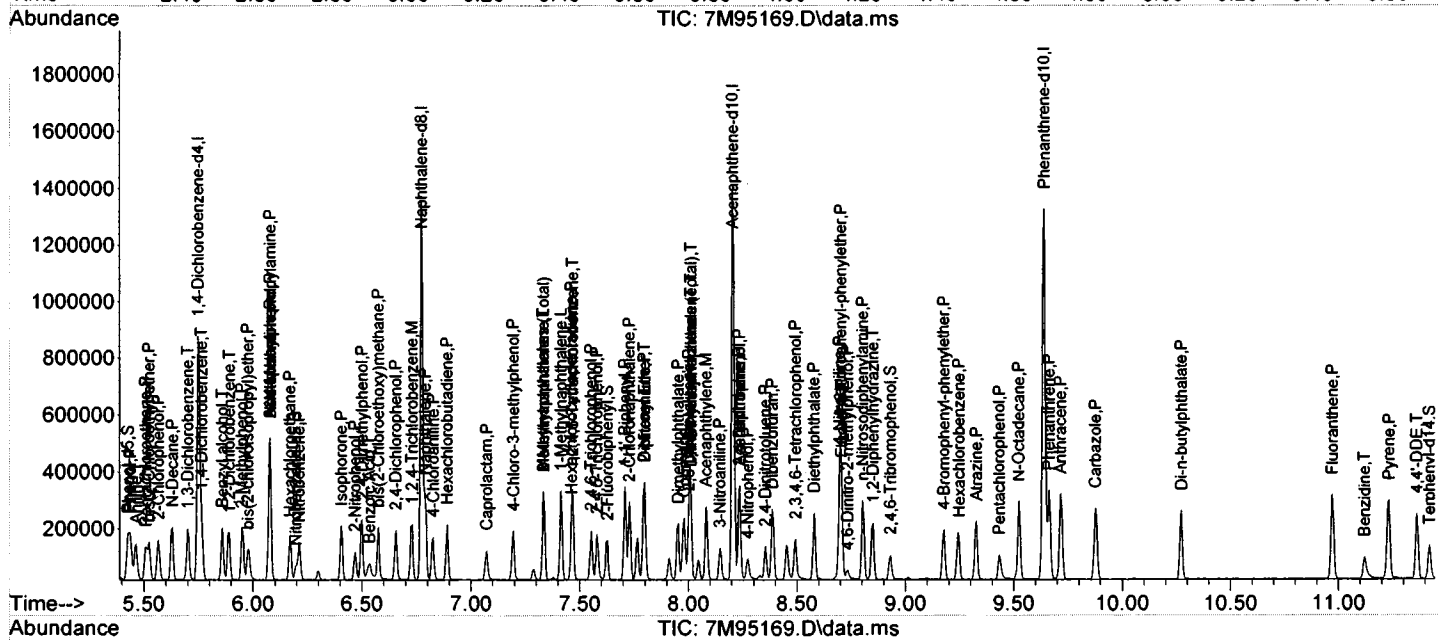
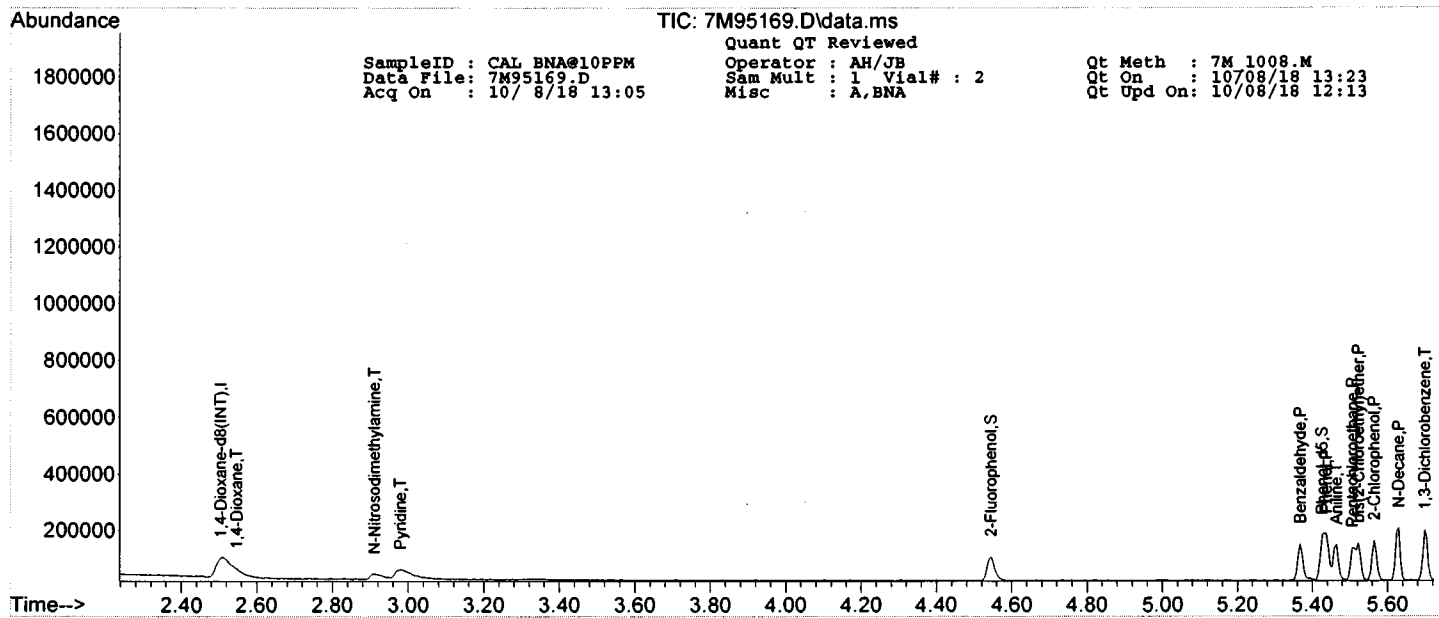
Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 13:23  
 Qt Upd On: 10/08/18 12:13

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|--------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.146  | 138  | 17359    | 7.8126 | ng    | 80       |
| 67)  | 2,4-Dinitrophenol         | 8.236  | 184  | 3419     | 2.8236 | ng    | 43       |
| 68)  | Dibenzofuran              | 8.386  | 168  | 95780    | 8.0528 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.354  | 165  | 18202    | 5.7078 | ng    | 64       |
| 70)  | 4-Nitrophenol             | 8.274  | 65   | 10981    | 4.3716 | ng    | 93       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.493  | 232  | 16885    | 6.5696 | ng    | 84       |
| 72)  | Fluorene                  | 8.707  | 166  | 79042    | 7.6448 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.701  | 204  | 35941    | 7.2110 | ng    | 81       |
| 74)  | Diethylphthalate          | 8.578  | 149  | 75473    | 7.3466 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.696  | 138  | 19336    | 7.2196 | ng    | 73       |
| 76)  | Atrazine                  | 9.326  | 200  | 21578m   | 7.1051 | ng    |          |
| 78)  | 4,6-Dinitro-2-methylph... | 8.733  | 198  | 4959     | 3.3279 | ng    | 57       |
| 79)  | n-Nitrosodiphenylamine    | 8.803  | 169  | 65757    | 7.5451 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.851  | 77   | 76130    | 6.3579 | ng    | 79       |
| 82)  | 4-Bromophenyl-phenylether | 9.177  | 248  | 19989    | 7.1190 | ng    | 86       |
| 83)  | Hexachlorobenzene         | 9.246  | 284  | 20829    | 7.6269 | ng    | 64       |
| 84)  | N-Octadecane              | 9.524  | 57   | 42610    | 5.3346 | ng    | 72       |
| 85)  | Pentachlorophenol         | 9.433  | 266  | 10077    | 6.7058 | ng    | 93       |
| 86)  | Phenanthrene              | 9.663  | 178  | 115332m  | 7.6595 | ng    |          |
| 87)  | Anthracene                | 9.716  | 178  | 117735   | 7.5834 | ng    | 99       |
| 88)  | Carbazole                 | 9.877  | 167  | 106611   | 7.5977 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.272 | 149  | 121483   | 6.6856 | ng    | 97       |
| 90)  | Fluoranthene              | 10.972 | 202  | 116270   | 6.9709 | ng    | 95       |
| 92)  | Pyrene                    | 11.233 | 202  | 119006   | 7.5219 | ng    | 90       |
| 93)  | Benzidine                 | 11.121 | 184  | 37967    | 6.5816 | ng    | 87       |
| 95)  | 4,4'-DDE                  | 11.362 | 246  | 23434    | 7.8663 | ng    | 94       |
| 96)  | 4,4'-DDD                  | 11.752 | 235  | 39456    | 7.7808 | ng    | 94       |
| 97)  | Butylbenzylphthalate      | 12.008 | 149  | 52231    | 6.9523 | ng    | 75       |
| 98)  | 4,4'-DDT                  | 12.110 | 235  | 23383    | 5.3879 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.617 | 252  | 33611    | 7.4655 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.639 | 228  | 112618   | 7.7377 | ng    | 100      |
| 101) | Chrysene                  | 12.681 | 228  | 104171   | 7.6034 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.719 | 149  | 69951    | 7.0584 | ng    | 95       |
| 104) | Di-n-octylphthalate       | 13.472 | 149  | 111447   | 6.1261 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.867 | 252  | 100877   | 7.0925 | ng    | 96       |
| 106) | Benzo[k]fluoranthene      | 13.899 | 252  | 95379    | 6.9309 | ng    | 93       |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 93552    | 6.9341 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.534 | 276  | 98792    | 7.3761 | ng    | 85       |
| 109) | Dibenzo[a,h]anthracene    | 15.561 | 278  | 82751    | 9.3371 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 15.887 | 276  | 84185    | 7.5448 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@20PPM  
Data File: 7M95174.D  
Acq On : 10/ 8/18 15:03

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:37  
Qt Upd On: 10/07/18 16:40

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.510  | 96   | 80893      | 40.00   | ng    | 0.05     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 137180     | 40.00   | ng    | 0.04     |
| 31) Naphthalene-d8             | 6.762  | 136  | 506716     | 40.00   | ng    | 0.04     |
| 50) Acenaphthene-d10           | 8.183  | 164  | 288424     | 40.00   | ng    | 0.05     |
| 77) Phenanthrene-d10           | 9.620  | 188  | 491343     | 40.00   | ng    | 0.04     |
| 91) Chrysene-d12               | 12.649 | 240  | 489782     | 40.00   | ng    | 0.03     |
| 103) Perylene-d12              | 14.257 | 264  | 422072     | 40.00   | ng    | 0.02     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 84937      | 18.26   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 18.26%  |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 123938m    | 17.77   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 17.77%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 15014      | 8.97    | ng    | 0.04     |
| Spiked Amount 50.000           |        |      | Recovery = | 17.94%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.601  | 172  | 89825      | 10.00   | ng    | 0.05     |
| Spiked Amount 50.000           |        |      | Recovery = | 20.00%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.910  | 330  | 21215      | 24.38   | ng    | 0.05     |
| Spiked Amount 100.000          |        |      | Recovery = | 24.38%  |       |          |
| 94) Terphenyl-d14              | 11.415 | 244  | 78776      | 9.49    | ng    | 0.04     |
| Spiked Amount 50.000           |        |      | Recovery = | 18.98%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 38556      | 20.5639 | ng    | 91       |
| 9) Pyridine                    | 2.975  | 79   | 101662     | 17.6719 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.910  | 74   | 56878      | 15.2132 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 58756m     | 16.7083 | ng    |          |
| 13) Aniline                    | 5.464  | 93   | 126002m    | 16.4590 | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 28459      | 18.0778 | ng    | 82       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 89241      | 18.4724 | ng    | 74       |
| 17) Phenol                     | 5.437  | 94   | 122191     | 15.4850 | ng    | 78       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 89249      | 17.2836 | ng    | 76       |
| 19) N-Decane                   | 5.630  | 57   | 78781      | 12.4570 | ng    | 83       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 96956m     | 17.0208 | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 97638      | 17.5609 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 93472      | 17.5537 | ng    | 98       |
| 24) Benzyl alcohol             | 5.859  | 108  | 58533      | 22.9583 | ng    | 68       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 92781      | 10.6860 | ng    | 95       |
| 26) 2-Methylphenol             | 5.950  | 108  | 80695      | 18.2715 | ng    | 96       |
| 27) Acetophenone               | 6.073  | 105  | 123806     | 17.0678 | ng    | 72       |
| 28) Hexachloroethane           | 6.169  | 117  | 35981      | 15.3601 | ng    | 87       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 59572      | 12.1023 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 85694      | 16.0680 | ng    | 100      |
| 33) Nitrobenzene               | 6.212  | 77   | 83650      | 12.1560 | ng    | 74       |
| 34) Isophorone                 | 6.399  | 82   | 156413     | 13.2894 | ng    | 88       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 43048      | 15.6054 | ng    | 78       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 82928      | 15.0461 | ng    | 87       |
| 37) Benzoic Acid               | 6.543  | 105  | 73656      | 18.5468 | ng    | 38       |
| 38) bis(2-Chloroethoxy)met...  | 6.570  | 93   | 106315     | 15.6441 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.650  | 162  | 70127      | 17.7063 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.719  | 180  | 77422      | 16.4340 | ng    | 97       |
| 41) Naphthalene                | 6.778  | 128  | 267911     | 19.1913 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.810  | 127  | 104762m    | 21.2033 | ng    |          |
| 43) Hexachlorobutadiene        | 6.880  | 225  | 39600      | 14.4746 | ng    | 98       |
| 44) Caprolactam                | 7.061  | 113  | 28867      | 17.5545 | ng    | 59       |
| 45) 4-Chloro-3-methylphenol    | 7.174  | 107  | 69045      | 14.1343 | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.312  | 142  | 175587     | 16.9373 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.393  | 142  | 170850     | 17.1484 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.312  | 142  | 346353m    | 34.0515 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.686  | 154  | 205840     | 16.6519 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.446  | 216  | 76224      | 18.6071 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.441  | 237  | 32164      | 24.4464 | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.531  | 196  | 48505      | 17.5608 | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.558  | 196  | 48335      | 16.3725 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.708  | 162  | 158543     | 18.2388 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.986  | 156  | 139863     | 21.7595 | ng    | 84       |
| 58) Dimethylnaphthalenes (...) | 7.986  | 156  | 139863     | 21.7595 | ng    | 84       |
| 59) Diphenyl Ether             | 7.772  | 170  | 117170     | 19.2468 | ng    | 75       |
| 60) 2-Nitroaniline             | 7.777  | 65   | 48084      | 11.7246 | ng    | 44       |
| 61) Coumarin                   | 7.959  | 146  | 65066      | 19.2520 | ng    | 84       |
| 62) Acenaphthylene             | 8.060  | 152  | 232982     | 19.0042 | ng    | 99       |
| 63) Dimethylphthalate          | 7.927  | 163  | 173089     | 16.9230 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 38373      | 16.8776 | ng    | 63       |
| 65) Acenaphthene               | 8.210  | 153  | 161689     | 18.6037 | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95174.D Sam Mult : 1 Vial# : 7 Qt On : 10/08/18 15:37  
 Acq On : 10/ 8/18 15:03 Misc : A,BNA Qt Upd On: 10/07/18 16:40

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.124  | 138  | 44421    | 20.1589 | ng    | 68       |
| 67)  | 2,4-Dinitrophenol         | 8.215  | 184  | 9658     | 7.9821  | ng    | 68       |
| 68)  | Dibenzofuran              | 8.360  | 168  | 222147   | 18.7714 | ng    | 84       |
| 69)  | 2,4-Dinitrotoluene        | 8.327  | 165  | 47006    | 14.8632 | ng    | 67       |
| 70)  | 4-Nitrophenol             | 8.247  | 65   | 25930    | 10.4090 | ng    | 78       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.466  | 232  | 41795    | 16.3972 | ng    | 85       |
| 72)  | Fluorene                  | 8.680  | 166  | 180941   | 17.6462 | ng    | 97       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.675  | 204  | 82098    | 16.6090 | ng    | 83       |
| 74)  | Diethylphthalate          | 8.552  | 149  | 171367   | 16.8201 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.675  | 138  | 47882    | 18.0270 | ng    | 71       |
| 76)  | Atrazine                  | 9.305  | 200  | 51448    | 17.0819 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.707  | 198  | 14835    | 9.9196  | ng    | 59       |
| 79)  | n-Nitrosodiphenylamine    | 8.782  | 169  | 153095   | 17.7283 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.824  | 77   | 178529   | 15.0470 | ng    | 84       |
| 82)  | 4-Bromophenyl-phenylether | 9.155  | 248  | 46861    | 16.8431 | ng    | 79       |
| 83)  | Hexachlorobenzene         | 9.220  | 284  | 48117    | 17.7812 | ng    | 73       |
| 84)  | N-Octadecane              | 9.503  | 57   | 96393    | 12.1791 | ng    | 68       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 25384    | 16.7330 | ng    | 99       |
| 86)  | Phenanthrene              | 9.647  | 178  | 264241   | 17.7106 | ng    | 100      |
| 87)  | Anthracene                | 9.700  | 178  | 271313   | 17.6365 | ng    | 100      |
| 88)  | Carbazole                 | 9.861  | 167  | 246695   | 17.7428 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.256 | 149  | 283562   | 15.7490 | ng    | 97       |
| 90)  | Fluoranthene              | 10.961 | 202  | 274020   | 16.5800 | ng    | 95       |
| 92)  | Pyrene                    | 11.223 | 202  | 280151   | 17.3687 | ng    | 89       |
| 93)  | Benztidine                | 11.111 | 184  | 104954   | 18.0744 | ng    | 90       |
| 95)  | 4,4'-DDE                  | 11.356 | 246  | 56107    | 18.4738 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.746 | 235  | 96304    | 18.6283 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.008 | 149  | 119288   | 15.5745 | ng    | 67       |
| 98)  | 4,4'-DDT                  | 12.104 | 235  | 61144    | 13.8195 | ng    | 97       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.612 | 252  | 83805    | 18.5046 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.639 | 228  | 261261   | 17.6075 | ng    | 100      |
| 101) | Chrysene                  | 12.676 | 228  | 245257   | 17.5590 | ng    | 100      |
| 102) | bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 158865   | 15.7239 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.456 | 149  | 255448   | 14.3623 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.851 | 252  | 225459m  | 16.2136 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 13.878 | 252  | 236059   | 17.5453 | ng    | 96       |
| 107) | Benzo[a]pyrene            | 14.193 | 252  | 215981   | 16.3742 | ng    | 95       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.507 | 276  | 230747   | 17.6216 | ng    | 87       |
| 109) | Dibenzo[a,h]anthracene    | 15.534 | 278  | 191936   | 21.4283 | ng    | 91       |
| 110) | Benzo[g,h,i]perylene      | 15.860 | 276  | 194600   | 17.8387 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@80PPM  
Data File: 7M95173.D  
Acq On : 10/ 8/18 14:40

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:44  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 80331      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.753  | 152  | 133398     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.768  | 136  | 496038     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.183  | 164  | 282685     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.626  | 188  | 487063     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.655 | 240  | 479929     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.268 | 264  | 425562     | 40.00    | ng    | 0.01     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 349270     | 75.61    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 75.61%   |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 498756     | 71.99    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 71.99%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 64907      | 39.61    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 79.22%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.606  | 172  | 362702     | 41.21    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 82.42%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.915  | 330  | 95582      | 89.54    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 89.54%   |       |          |
| 94) Terphenyl-d14              | 11.415 | 244  | 340013     | 41.78    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 83.56%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 151135     | 78.0577  | ng    | 90       |
| 9) Pyridine                    | 2.969  | 79   | 409329     | 68.6502  | ng    | 60       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 236099     | 63.5915  | ng    | 67       |
| 12) Benzaldehyde               | 5.368  | 77   | 172619     | 51.3057  | ng    | 74       |
| 13) Aniline                    | 5.464  | 93   | 492390m    | 64.7683  | ng    |          |
| 14) Pentachloroethane          | 5.512  | 117  | 117614     | 71.6760  | ng    | 83       |
| 15) bis(2-Chloroethyl) ether   | 5.528  | 93   | 349977     | 68.8720  | ng    | 72       |
| 17) Phenol                     | 5.443  | 94   | 491348     | 62.7031  | ng    | 77       |
| 18) 2-Chlorophenol             | 5.571  | 128  | 365683     | 71.3122  | ng    | 74       |
| 19) N-Decane                   | 5.630  | 57   | 311566     | 49.2499  | ng    | 83       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 388240     | 68.6331  | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 395277     | 73.1091  | ng    | 96       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 372195     | 71.8787  | ng    | 98       |
| 24) Benzyl alcohol             | 5.859  | 108  | 239842     | 85.9471  | ng    | 68       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 360622     | 42.7121  | ng    | 94       |
| 26) 2-Methylphenol             | 5.956  | 108  | 324857     | 70.2779  | ng    | 97       |
| 27) Acetophenone               | 6.078  | 105  | 468805     | 66.4614  | ng    | 68       |
| 28) Hexachloroethane           | 6.169  | 117  | 144964     | 63.6390  | ng    | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.084  | 70   | 222825     | 48.7666  | ng    | 91       |
| 30) 3&4-Methylphenol           | 6.078  | 108  | 330463     | 63.7201  | ng    | 100      |
| 33) Nitrobenzene               | 6.212  | 77   | 335711     | 49.8357  | ng    | 75       |
| 34) Isophorone                 | 6.404  | 82   | 621317     | 53.9258  | ng    | 84       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 185382     | 68.6499  | ng    | 82       |
| 36) 2,4-Dimethylphenol         | 6.495  | 107  | 332873     | 60.7608  | ng    | 86       |
| 37) Benzoic Acid               | 6.586  | 105  | 367472     | 86.4972  | ng    | 41       |
| 38) bis(2-Chloroethoxy)met...  | 6.570  | 93   | 417207     | 62.7130  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.650  | 162  | 285728     | 69.9875  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.720  | 180  | 309195     | 67.0442  | ng    | 97       |
| 41) Naphthalene                | 6.784  | 128  | 1053360    | 73.1179  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.816  | 127  | 393940m    | 81.4480  | ng    |          |
| 43) Hexachlorobutadiene        | 6.880  | 225  | 157056     | 58.6428  | ng    | 96       |
| 44) Caprolactam                | 7.088  | 113  | 120045     | 74.5729  | ng    | 57       |
| 45) 4-Chloro-3-methylphenol    | 7.179  | 107  | 284378     | 59.4686  | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.318  | 142  | 703401     | 69.3115  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.398  | 142  | 677418     | 69.4568  | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.318  | 142  | 1380665m   | 138.6611 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.686  | 154  | 817775     | 67.5799  | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.451  | 216  | 304277     | 75.7854  | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.446  | 237  | 154306     | 93.6561  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.537  | 196  | 196769     | 72.6849  | ng    | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.564  | 196  | 207651     | 71.7655  | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.708  | 162  | 623092     | 73.1360  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.991  | 156  | 546954     | 86.8210  | ng    | 85       |
| 58) Dimethylnaphthalenes (...) | 7.991  | 156  | 546954     | 86.8210  | ng    | 85       |
| 59) Diphenyl Ether             | 7.777  | 170  | 464394     | 77.8320  | ng    | 74       |
| 60) 2-Nitroaniline             | 7.783  | 65   | 191797     | 47.7166  | ng    | 43       |
| 61) Coumarin                   | 7.964  | 146  | 258454     | 78.0250  | ng    | 85       |
| 62) Acenaphthylene             | 8.066  | 152  | 937536     | 78.0268  | ng    | 99       |
| 63) Dimethylphthalate          | 7.938  | 163  | 688769     | 68.7083  | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.986  | 165  | 158899     | 71.3073  | ng    | 59       |
| 65) Acenaphthene               | 8.215  | 153  | 645768     | 75.8097  | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM  
 Data File: 7M95173.D  
 Acq On : 10/ 8/18 14:40

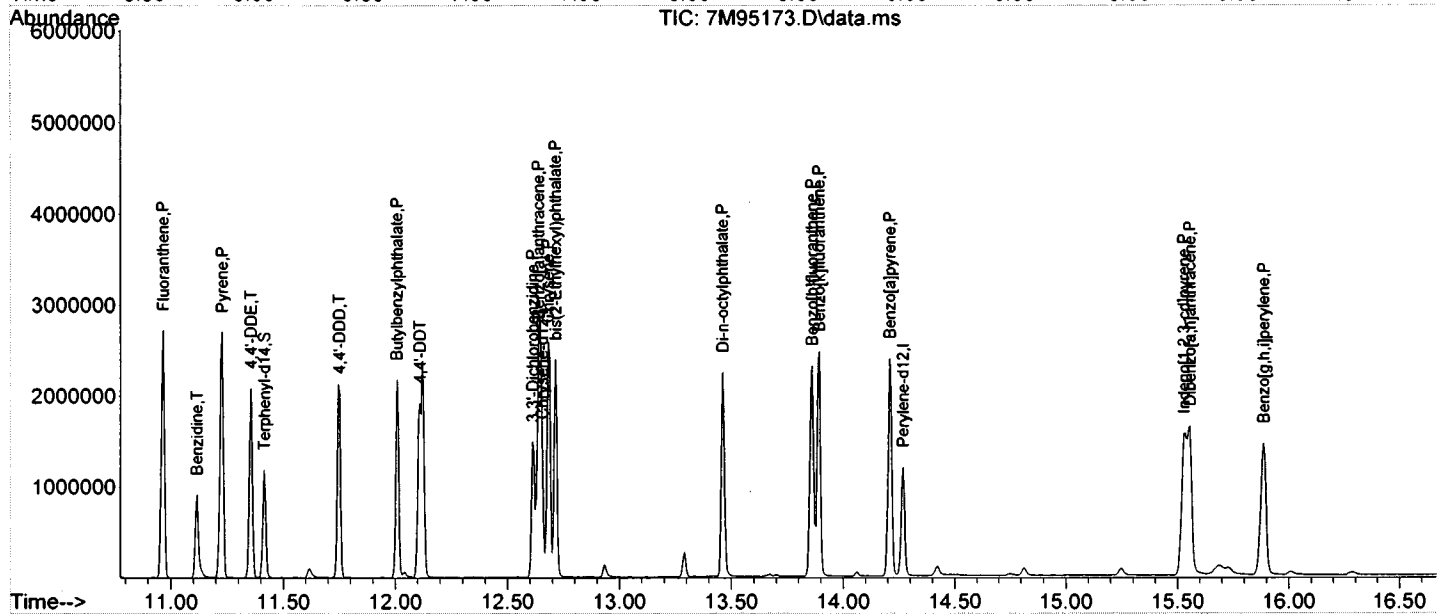
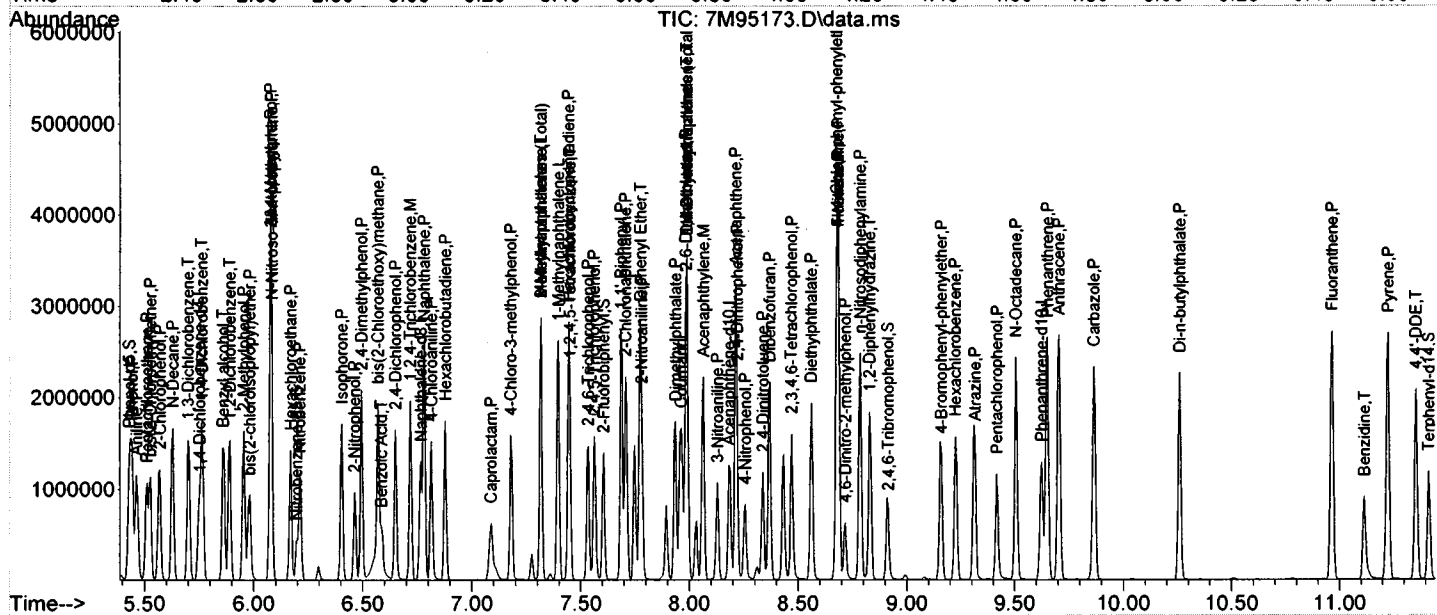
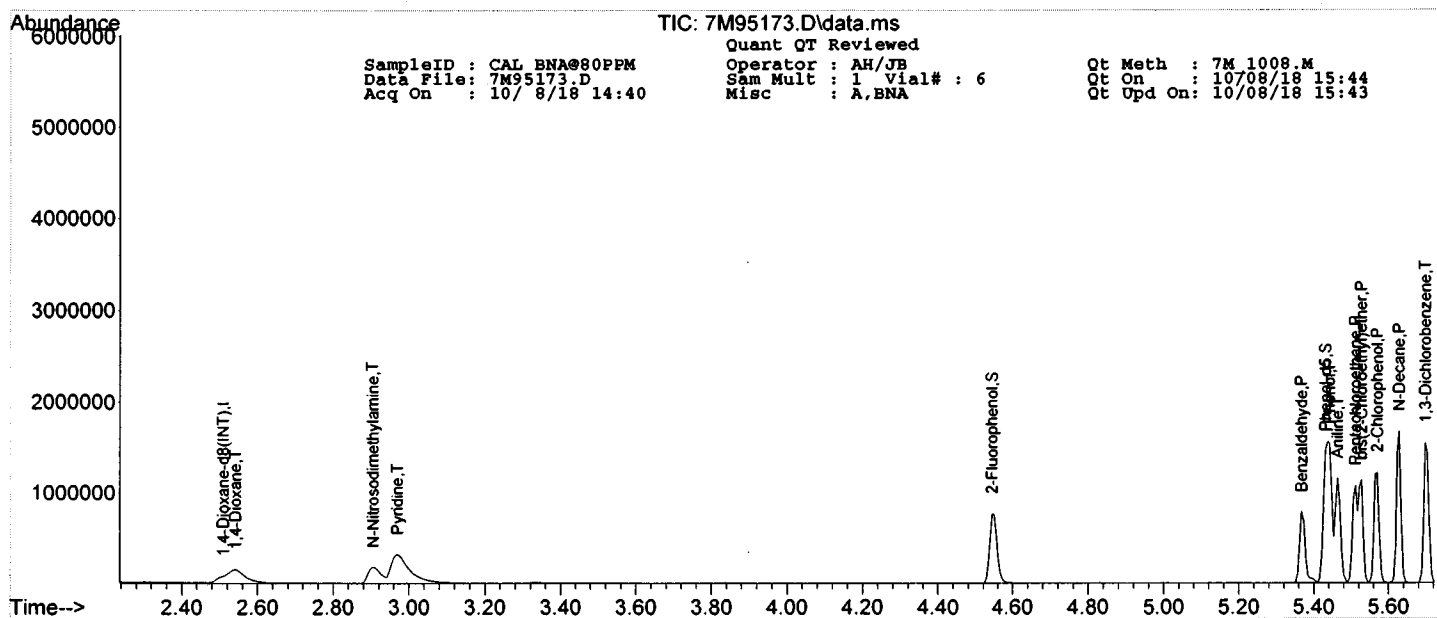
Operator : AH/JB  
 Sam Mult : 1 Vial# : 6  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:44  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.130  | 138  | 176498   | 81.7234 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.221  | 184  | 72475    | 57.0407 | ng    | 47       |
| 68) Dibenzofuran               | 8.370  | 168  | 889421   | 75.3791 | ng    | 83       |
| 69) 2,4-Dinitrotoluene         | 8.338  | 165  | 211535   | 68.2448 | ng    | 59       |
| 70) 4-Nitrophenol              | 8.258  | 65   | 122737   | 50.2704 | ng    | 81       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.472  | 232  | 180122   | 72.1007 | ng    | 84       |
| 72) Fluorene                   | 8.685  | 166  | 715948   | 71.2401 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.680  | 204  | 330278   | 68.1742 | ng    | 82       |
| 74) Diethylphthalate           | 8.563  | 149  | 695221   | 69.6230 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.685  | 138  | 199888   | 76.7832 | ng    | 69       |
| 76) Atrazine                   | 9.316  | 200  | 214031   | 72.5058 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.717  | 198  | 96388    | 59.3556 | ng    | 68       |
| 79) n-Nitrosodiphenylamine     | 8.787  | 169  | 621522   | 72.6041 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.830  | 77   | 696008   | 59.1774 | ng    | 82       |
| 82) 4-Bromophenyl-phenylether  | 9.161  | 248  | 197399   | 71.5738 | ng    | 78       |
| 83) Hexachlorobenzene          | 9.225  | 284  | 197503   | 73.6266 | ng    | 71       |
| 84) N-Octadecane               | 9.508  | 57   | 378277   | 48.2147 | ng    | 65       |
| 85) Pentachlorophenol          | 9.417  | 266  | 127836   | 76.5782 | ng    | 97       |
| 86) Phenanthrene               | 9.652  | 178  | 1072610  | 72.5228 | ng    | 100      |
| 87) Anthracene                 | 9.706  | 178  | 1100317  | 72.1539 | ng    | 100      |
| 88) Carbazole                  | 9.866  | 167  | 998668   | 72.4575 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.261 | 149  | 1189360  | 66.6376 | ng    | 97       |
| 90) Fluoranthene               | 10.967 | 202  | 1128530  | 68.8833 | ng    | 93       |
| 92) Pyrene                     | 11.228 | 202  | 1141203  | 72.2044 | ng    | 90       |
| 93) Benzidine                  | 11.116 | 184  | 396554   | 74.3531 | ng    | 88       |
| 95) 4,4'-DDE                   | 11.357 | 246  | 235169   | 79.0216 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 407915   | 80.5236 | ng    | 94       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 521567   | 69.4949 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.110 | 235  | 324557   | 74.8611 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 337311   | 82.4438 | ng    | 98       |
| 100) Benzo[a]anthracene        | 12.639 | 228  | 1078099  | 74.1495 | ng    | 98       |
| 101) Chrysene                  | 12.681 | 228  | 997510   | 72.8820 | ng    | 100      |
| 102) bis(2-Ethylhexyl)phtha... | 12.714 | 149  | 715154   | 72.2365 | ng    | 93       |
| 104) Di-n-octylphthalate       | 13.461 | 149  | 1209334  | 67.4360 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.862 | 252  | 1037783  | 74.0188 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.894 | 252  | 954681   | 70.3756 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.209 | 252  | 971691   | 73.0629 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.529 | 276  | 1025449  | 77.6687 | ng    | 88       |
| 109) Dibenzo[a,h]anthracene    | 15.556 | 278  | 857228   | 81.6459 | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.887 | 276  | 851832   | 77.4459 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@120PPM  
Data File: 7M95172.D  
Acq On : 10/ 8/18 14:16

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:43  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| -----                          |        |      |            |          |       |          |
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 82152      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.753  | 152  | 134996     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.762  | 136  | 501928     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.178  | 164  | 287749     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.620  | 188  | 498911     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.655 | 240  | 487388     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.295 | 264  | 430382     | 40.00    | ng    | 0.04     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.551  | 112  | 542384     | 114.81   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 114.81%  |       |          |
| 16) Phenol-d5                  | 5.437  | 99   | 762683     | 107.65   | ng    | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery = | 107.65%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 98291      | 59.28    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 118.56%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.596  | 172  | 562247     | 62.76    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 125.52%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.910  | 330  | 153461     | 126.56   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 126.56%  |       |          |
| 94) Terphenyl-d14              | 11.415 | 244  | 522557     | 63.23    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 126.46%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 231906     | 114.3497 | ng    | 90       |
| 9) Pyridine                    | 2.969  | 79   | 628257     | 100.4113 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 359343     | 94.6410  | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 221456     | 65.3701  | ng    | 73       |
| 13) Aniline                    | 5.464  | 93   | 739008m    | 95.0534  | ng    |          |
| 14) Pentachloroethane          | 5.512  | 117  | 180666     | 104.6196 | ng    | 83       |
| 15) bis(2-Chloroethyl)ether    | 5.528  | 93   | 531347     | 98.9455  | ng    | 73       |
| 17) Phenol                     | 5.448  | 94   | 748440     | 93.3946  | ng    | 76       |
| 18) 2-Chlorophenol             | 5.571  | 128  | 562119     | 107.1896 | ng    | 74       |
| 19) N-Decane                   | 5.630  | 57   | 462518     | 71.1825  | ng    | 83       |
| 20) 1,3-Dichlorobenzene        | 5.704  | 146  | 597250     | 103.2415 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 599219     | 109.5176 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 564550     | 107.7359 | ng    | 98       |
| 24) Benzyl alcohol             | 5.865  | 108  | 369770     | 122.8955 | ng    | 63       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 546267     | 63.9341  | ng    | 94       |
| 26) 2-Methylphenol             | 5.956  | 108  | 492435     | 101.0332 | ng    | 96       |
| 27) Acetophenone               | 6.078  | 105  | 678037     | 94.9858  | ng    | 68       |
| 28) Hexachloroethane           | 6.169  | 117  | 223127     | 96.7930  | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.084  | 70   | 319378     | 71.1358  | ng    | 90       |
| 30) 3&4-Methylphenol           | 6.084  | 108  | 475892     | 90.6755  | ng    | 98       |
| 33) Nitrobenzene               | 6.212  | 77   | 508942     | 74.6649  | ng    | 75       |
| 34) Isophorone                 | 6.404  | 82   | 942394     | 80.8332  | ng    | 83       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 292633     | 107.0949 | ng    | 80       |
| 36) 2,4-Dimethylphenol         | 6.495  | 107  | 501291     | 89.5741  | ng    | 85       |
| 37) Benzoic Acid               | 6.602  | 105  | 609559     | 133.8724 | ng    | 42       |
| 38) bis(2-Chloroethoxy)met...  | 6.570  | 93   | 634321     | 94.2299  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.650  | 162  | 442226     | 103.6864 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.719  | 180  | 477181     | 102.2552 | ng    | 97       |
| 41) Naphthalene                | 6.778  | 128  | 1581629    | 105.2726 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.810  | 127  | 552515m    | 112.8932 | ng    |          |
| 43) Hexachlorobutadiene        | 6.874  | 225  | 243070     | 89.6944  | ng    | 96       |
| 44) Caprolactam                | 7.093  | 113  | 186462     | 114.4724 | ng    | 57       |
| 45) 4-Chloro-3-methylphenol    | 7.179  | 107  | 435933     | 90.0918  | ng    | 71       |
| 46) 2-Methylnaphthalene        | 7.312  | 142  | 1057555    | 102.9862 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.387  | 142  | 1032374    | 104.6089 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.312  | 142  | 2089996m   | 207.4366 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.681  | 154  | 1226961    | 100.2047 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.441  | 216  | 461928     | 113.0263 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.435  | 237  | 240608     | 129.0989 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.526  | 196  | 321127     | 116.5341 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.558  | 196  | 331601     | 112.5866 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.702  | 162  | 935055     | 107.8214 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.986  | 156  | 810145     | 126.3356 | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 7.986  | 156  | 810145     | 126.3356 | ng    | 86       |
| 59) Diphenyl Ether             | 7.767  | 170  | 710945     | 117.0568 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.777  | 65   | 292981     | 71.6071  | ng    | 42       |
| 61) Coumarin                   | 7.964  | 146  | 403534     | 119.6794 | ng    | 86       |
| 62) Acenaphthylene             | 8.060  | 152  | 1439961    | 117.7323 | ng    | 99       |
| 63) Dimethylphthalate          | 7.932  | 163  | 1044295    | 102.3406 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.980  | 165  | 235690     | 103.9066 | ng    | 59       |
| 65) Acenaphthene               | 8.210  | 153  | 973464     | 112.2683 | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM  
 Data File: 7M95172.D  
 Acq On : 10/ 8/18 14:16

Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:43  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.124  | 138  | 258513   | 117.5921 | ng    | 74       |
| 67)  | 2,4-Dinitrophenol         | 8.215  | 184  | 124496   | 91.9045  | ng    | 38       |
| 68)  | Dibenzofuran              | 8.360  | 168  | 1342349  | 110.5941 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.333  | 165  | 332338   | 105.3310 | ng    | 59       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 191188   | 76.9283  | ng    | 81       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.466  | 232  | 282587   | 111.1256 | ng    | 83       |
| 72)  | Fluorene                  | 8.680  | 166  | 1063389  | 103.9499 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.669  | 204  | 497186   | 100.8204 | ng    | 84       |
| 74)  | Diethylphthalate          | 8.557  | 149  | 1068494  | 105.1213 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.685  | 138  | 308969   | 116.5959 | ng    | 68       |
| 76)  | Atrazine                  | 9.310  | 200  | 331798   | 110.4228 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.712  | 198  | 159910   | 91.0506  | ng    | 62       |
| 79)  | n-Nitrosodiphenylamine    | 8.782  | 169  | 962262   | 109.7387 | ng    | 100      |
| 81)  | 1,2-Diphenylhydrazine     | 8.824  | 77   | 1061543  | 88.1132  | ng    | 80       |
| 82)  | 4-Bromophenyl-phenylether | 9.156  | 248  | 302438   | 107.0551 | ng    | 78       |
| 83)  | Hexachlorobenzene         | 9.220  | 284  | 309329   | 112.5755 | ng    | 71       |
| 84)  | N-Octadecane              | 9.503  | 57   | 567155   | 70.5721  | ng    | 63       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 204854   | 112.9838 | ng    | 97       |
| 86)  | Phenanthrene              | 9.647  | 178  | 1652249  | 109.0613 | ng    | 99       |
| 87)  | Anthracene                | 9.700  | 178  | 1681442  | 107.6430 | ng    | 98       |
| 88)  | Carbazole                 | 9.866  | 167  | 1540992  | 109.1502 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.256 | 149  | 1824827  | 99.8136  | ng    | 97       |
| 90)  | Fluoranthene              | 10.967 | 202  | 1734740  | 103.3707 | ng    | 93       |
| 92)  | Pyrene                    | 11.228 | 202  | 1745936  | 108.7755 | ng    | 89       |
| 93)  | Benzidine                 | 11.116 | 184  | 577572   | 111.5689 | ng    | 86       |
| 95)  | 4,4'-DDE                  | 11.357 | 246  | 365067   | 120.7926 | ng    | 93       |
| 96)  | 4,4'-DDD                  | 11.752 | 235  | 633460   | 123.1331 | ng    | 95       |
| 97)  | Butylbenzylphthalate      | 12.008 | 149  | 811746   | 106.5038 | ng    | 73       |
| 98)  | 4,4'-DDT                  | 12.110 | 235  | 519878   | 118.0779 | ng    | 97       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.617 | 252  | 486288   | 123.8199 | ng    | 96       |
| 100) | Benzo[a]anthracene        | 12.644 | 228  | 1650442  | 111.7770 | ng    | 97       |
| 101) | Chrysene                  | 12.687 | 228  | 1545396  | 111.1847 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 1100864  | 109.4947 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.477 | 149  | 1911146  | 105.3775 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.883 | 252  | 1621317m | 114.3436 | ng    |          |
| 106) | Benzo[k]fluoranthene      | 13.915 | 252  | 1479291m | 107.8266 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.241 | 252  | 1508003  | 112.1192 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.572 | 276  | 1639331  | 122.7742 | ng    | 90       |
| 109) | Dibenzo[a,h]anthracene    | 15.593 | 278  | 1366922  | 118.5674 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 15.930 | 276  | 1358884  | 122.1618 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@160PPM

Operator : AH/JB

Qt Meth : 7M\_1008.M

Data File: 7M95171.D

Sam Mult : 1 Vial# : 4

Qt On : 10/08/18 15:43

Acq On : 10/ 8/18 13:53

Misc : A,BNA

Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 76070    | 40.00    | ng      | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.752  | 152  | 123955   | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.778  | 136  | 459360   | 40.00    | ng      | 0.02     |
| 50) Acenaphthene-d10           | 8.210  | 164  | 266448   | 40.00    | ng      | 0.03     |
| 77) Phenanthrene-d10           | 9.642  | 188  | 461445   | 40.00    | ng      | 0.02     |
| 91) Chrysene-d12               | 12.660 | 240  | 448112   | 40.00    | ng      | 0.01     |
| 103) Perylene-d12              | 14.279 | 264  | 397716   | 40.00    | ng      | 0.02     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.550  | 112  | 666474   | 152.36   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 152.36% |          |
| 16) Phenol-d5                  | 5.437  | 99   | 931222   | 141.94   | ng      | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 141.94% |          |
| 32) Nitrobenzene-d5            | 6.201  | 128  | 122329   | 80.61    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 161.22% |          |
| 55) 2-Fluorobiphenyl           | 7.628  | 172  | 687062   | 82.82    | ng      | 0.03     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 165.64% |          |
| 80) 2,4,6-Tribromophenol       | 8.936  | 330  | 193421   | 158.84   | ng      | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 158.84% |          |
| 94) Terphenyl-d14              | 11.426 | 244  | 659232   | 86.76    | ng      | 0.01     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 173.52% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 284901   | 148.4183 | ng      | 91       |
| 9) Pyridine                    | 2.969  | 79   | 776420   | 130.8265 | ng      | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 444794   | 126.5126 | ng      | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 240146   | 77.6129  | ng      | 71       |
| 13) Aniline                    | 5.469  | 93   | 901555m  | 125.2320 | ng      |          |
| 14) Pentachloroethane          | 5.512  | 117  | 222398   | 135.4957 | ng      | 84       |
| 15) bis(2-Chloroethyl)ether    | 5.528  | 93   | 651919   | 127.2396 | ng      | 74       |
| 17) Phenol                     | 5.448  | 94   | 907753   | 122.3312 | ng      | 77       |
| 18) 2-Chlorophenol             | 5.571  | 128  | 687953   | 141.6733 | ng      | 76       |
| 19) N-Decane                   | 5.630  | 57   | 557669   | 92.3054  | ng      | 82       |
| 20) 1,3-Dichlorobenzene        | 5.704  | 146  | 725190   | 135.3801 | ng      | 97       |
| 22) 1,4-Dichlorobenzene        | 5.769  | 146  | 731875   | 145.6773 | ng      | 97       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 694591   | 144.3591 | ng      | 97       |
| 24) Benzyl alcohol             | 5.865  | 108  | 451176   | 155.0270 | ng      | 67       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 657201   | 83.7688  | ng      | 95       |
| 26) 2-Methylphenol             | 5.961  | 108  | 606245   | 130.4428 | ng      | 96       |
| 27) Acetophenone               | 6.084  | 105  | 794025   | 121.1425 | ng      | 68       |
| 28) Hexachloroethane           | 6.175  | 117  | 274283   | 129.5828 | ng      | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.089  | 70   | 378220   | 94.7339  | ng      | 91       |
| 30) 3&4-Methylphenol           | 6.084  | 108  | 561195   | 116.4535 | ng      | 99       |
| 33) Nitrobenzene               | 6.217  | 77   | 622944   | 99.8586  | ng      | 76       |
| 34) Isophorone                 | 6.415  | 82   | 1148096  | 107.6028 | ng      | 80       |
| 35) 2-Nitrophenol              | 6.474  | 139  | 358129   | 143.2100 | ng      | 79       |
| 36) 2,4-Dimethylphenol         | 6.506  | 107  | 620651   | 119.9820 | ng      | 86       |
| 37) Benzoic Acid               | 6.623  | 105  | 750486   | 172.2890 | ng      | 41       |
| 38) bis(2-Chloroethoxy)met...  | 6.581  | 93   | 770813   | 125.1171 | ng      | 95       |
| 39) 2,4-Dichlorophenol         | 6.661  | 162  | 541630   | 134.8444 | ng      | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.730  | 180  | 580793   | 135.9915 | ng      | 97       |
| 41) Naphthalene                | 6.794  | 128  | 1905776  | 134.9056 | ng      | 98       |
| 42) 4-Chloroaniline            | 6.826  | 127  | 615062m  | 137.3191 | ng      |          |
| 43) Hexachlorobutadiene        | 6.890  | 225  | 293550   | 118.3598 | ng      | 96       |
| 44) Caprolactam                | 7.125  | 113  | 230612   | 154.6966 | ng      | 55       |
| 45) 4-Chloro-3-methylphenol    | 7.200  | 107  | 536973   | 121.2568 | ng      | 75       |
| 46) 2-Methylnaphthalene        | 7.334  | 142  | 1280021  | 136.2013 | ng      | 100      |
| 47) 1-Methylnaphthalene        | 7.414  | 142  | 1247882  | 138.1635 | ng      | 91       |
| 48) Methylnaphthalenes (To...  | 7.414  | 142  | 2528236m | 274.1863 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.713  | 154  | 1489028  | 132.8766 | ng      | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.473  | 216  | 556919   | 147.1630 | ng      | 98       |
| 52) Hexachlorocyclopentadiene  | 7.462  | 237  | 298637   | 159.3977 | ng      | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.558  | 196  | 378389   | 148.2915 | ng      | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.585  | 196  | 400046   | 146.6838 | ng      | 99       |
| 56) 2-Chloronaphthalene        | 7.729  | 162  | 1151374  | 143.3790 | ng      | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.012  | 156  | 957395   | 161.2335 | ng      | 88       |
| 58) Dimethylnaphthalenes (...) | 8.012  | 156  | 957395   | 161.2335 | ng      | 88       |
| 59) Diphenyl Ether             | 7.799  | 170  | 856156   | 152.2352 | ng      | 74       |
| 60) 2-Nitroaniline             | 7.804  | 65   | 349895   | 92.3540  | ng      | 48       |
| 61) Coumarin                   | 7.996  | 146  | 487176   | 156.0366 | ng      | 86       |
| 62) Acenaphthylene             | 8.087  | 152  | 1738379  | 153.4937 | ng      | 98       |
| 63) Dimethylphthalate          | 7.964  | 163  | 1282684  | 135.7519 | ng      | 98       |
| 64) 2,6-Dinitrotoluene         | 8.012  | 165  | 279600   | 133.1191 | ng      | 60       |
| 65) Acenaphthene               | 8.237  | 153  | 1174450  | 146.2761 | ng      | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95171.D Sam Mult : 1 Vial# : 4 Qt On : 10/08/18 15:43  
 Acq On : 10/ 8/18 13:53 Misc : A,BNA Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.156  | 138  | 305912   | 150.2774 | ng    | 73       |
| 67)  | 2,4-Dinitrophenol         | 8.247  | 184  | 158845   | 121.8928 | ng    | 30       |
| 68)  | Dibenzofuran              | 8.392  | 168  | 1656816  | 145.8861 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.365  | 165  | 412025   | 141.0266 | ng    | 57       |
| 70)  | 4-Nitrophenol             | 8.285  | 65   | 237620   | 103.2547 | ng    | 83       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.493  | 232  | 352766   | 149.8131 | ng    | 84       |
| 72)  | Fluorene                  | 8.707  | 166  | 1270157  | 134.0883 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.701  | 204  | 599978   | 131.3912 | ng    | 82       |
| 74)  | Diethylphthalate          | 8.584  | 149  | 1308296  | 139.0036 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.717  | 138  | 375024   | 152.8371 | ng    | 69       |
| 76)  | Atrazine                  | 9.337  | 200  | 406699   | 146.1704 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.744  | 198  | 202866   | 119.2720 | ng    | 69       |
| 79)  | n-Nitrosodiphenylamine    | 8.808  | 169  | 1171229  | 144.4147 | ng    | 100      |
| 81)  | 1,2-Diphenylhydrazine     | 8.851  | 77   | 1289869  | 115.7583 | ng    | 79       |
| 82)  | 4-Bromophenyl-phenylether | 9.177  | 248  | 377774   | 144.5793 | ng    | 82       |
| 83)  | Hexachlorobenzene         | 9.246  | 284  | 380533   | 149.7334 | ng    | 67       |
| 84)  | N-Octadecane              | 9.524  | 57   | 681052   | 91.6252  | ng    | 61       |
| 85)  | Pentachlorophenol         | 9.439  | 266  | 260365   | 147.3459 | ng    | 98       |
| 86)  | Phenanthrene              | 9.668  | 178  | 1996194  | 142.4626 | ng    | 99       |
| 87)  | Anthracene                | 9.722  | 178  | 2059489  | 142.5498 | ng    | 98       |
| 88)  | Carbazole                 | 9.882  | 167  | 1891124  | 144.8263 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.272 | 149  | 2215679  | 131.0321 | ng    | 97       |
| 90)  | Fluoranthene              | 10.977 | 202  | 2136180  | 137.6271 | ng    | 94       |
| 92)  | Pyrene                    | 11.239 | 202  | 2140705  | 145.0601 | ng    | 89       |
| 93)  | Benzidine                 | 11.121 | 184  | 654052   | 143.0032 | ng    | 91       |
| 95)  | 4,4'-DDE                  | 11.362 | 246  | 454826   | 163.6822 | ng    | 93       |
| 96)  | 4,4'-DDD                  | 11.757 | 235  | 791896   | 167.4219 | ng    | 96       |
| 97)  | Butylbenzylphthalate      | 12.014 | 149  | 1000407  | 142.7611 | ng    | 74       |
| 98)  | 4,4'-DDT                  | 12.115 | 235  | 646003   | 159.5843 | ng    | 98       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.623 | 252  | 582164   | 173.2059 | ng    | 96       |
| 100) | Benzo[a]anthracene        | 12.649 | 228  | 2035789  | 149.9592 | ng    | 98       |
| 101) | Chrysene                  | 12.692 | 228  | 1883076  | 147.3538 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.719 | 149  | 1345888  | 145.5984 | ng    | 93       |
| 104) | Di-n-octylphthalate       | 13.472 | 149  | 2338806  | 139.5499 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.878 | 252  | 1920988  | 146.6053 | ng    | 95       |
| 106) | Benzo[k]fluoranthene      | 13.910 | 252  | 1900387  | 149.8979 | ng    | 94       |
| 107) | Benzo[a]pyrene            | 14.225 | 252  | 1879552  | 151.2213 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.550 | 276  | 2044951  | 165.7313 | ng    | 91       |
| 109) | Dibenzo[a,h]anthracene    | 15.577 | 278  | 1698107  | 149.5014 | ng    | 93       |
| 110) | Benzo[g,h,i]perylene      | 15.913 | 276  | 1681208  | 163.5519 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : CAL BNA@196PPM

Operator : AH/JB

Qt Meth : 7M\_1008.M

Data File: 7M95170.D

Sam Mult : 1 Vial# : 3

Qt On : 10/08/18 15:43

Acq On : 10/ 8/18 13:29

Misc : A,BNA

Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 76812      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.752  | 152  | 126580     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.767  | 136  | 465835     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.189  | 164  | 270926     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.626  | 188  | 466920     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.660 | 240  | 452377     | 40.00    | ng    | 0.01     |
| 103) Perylene-d12              | 14.268 | 264  | 405129     | 40.00    | ng    | 0.01     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.550  | 112  | 833529     | 188.71   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 188.71%  |       |          |
| 16) Phenol-d5                  | 5.443  | 99   | 1153760    | 174.17   | ng    | 0.02     |
| Spiked Amount 100.000          |        |      | Recovery = | 174.17%  |       |          |
| 32) Nitrobenzene-d5            | 6.201  | 128  | 154552     | 100.43   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 200.86%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.606  | 172  | 856553     | 101.54   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 203.08%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.920  | 330  | 246074     | 186.89   | ng    | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery = | 186.89%  |       |          |
| 94) Terphenyl-d14              | 11.421 | 244  | 835461     | 108.92   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 217.84%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 359234     | 181.5062 | ng    | 91       |
| 9) Pyridine                    | 2.964  | 79   | 978754     | 159.7190 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 563778     | 158.8062 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 265247     | 85.6773  | ng    | 73       |
| 13) Aniline                    | 5.469  | 93   | 1113098    | 153.1232 | ng    | 79       |
| 14) Pentachloroethane          | 5.512  | 117  | 274250     | 161.9016 | ng    | 83       |
| 15) bis(2-Chloroethyl) ether   | 5.533  | 93   | 792302     | 149.6513 | ng    | 72       |
| 17) Phenol                     | 5.453  | 94   | 1114858    | 148.7899 | ng    | 79       |
| 18) 2-Chlorophenol             | 5.576  | 128  | 856633     | 174.7062 | ng    | 73       |
| 19) N-Decane                   | 5.630  | 57   | 673611     | 110.0373 | ng    | 81       |
| 20) 1,3-Dichlorobenzene        | 5.704  | 146  | 902046     | 166.7693 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.769  | 146  | 903914     | 176.1899 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 851662     | 173.3330 | ng    | 98       |
| 24) Benzyl alcohol             | 5.870  | 108  | 562113     | 181.5434 | ng    | 63       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 809597     | 101.0537 | ng    | 96       |
| 26) 2-Methylphenol             | 5.961  | 108  | 754376     | 154.3087 | ng    | 97       |
| 27) Acetophenone               | 6.084  | 105  | 933478     | 139.4650 | ng    | 67       |
| 28) Hexachloroethane           | 6.169  | 117  | 340115     | 157.3524 | ng    | 83       |
| 29) N-Nitroso-di-n-propyla...  | 6.089  | 70   | 451167     | 113.6245 | ng    | 90       |
| 30) 3&4-Methylphenol           | 6.089  | 108  | 654267     | 132.9513 | ng    | 97       |
| 33) Nitrobenzene               | 6.217  | 77   | 775834     | 122.6384 | ng    | 73       |
| 34) Isophorone                 | 6.410  | 82   | 1428008    | 131.9767 | ng    | 84       |
| 35) 2-Nitrophenol              | 6.468  | 139  | 454649     | 179.2797 | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.500  | 107  | 767012     | 145.0344 | ng    | 86       |
| 37) Benzoic Acid               | 6.629  | 105  | 967756     | 210.1114 | ng    | 40       |
| 38) bis(2-Chloroethoxy)met...  | 6.575  | 93   | 948139     | 151.7612 | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.655  | 162  | 675259     | 161.8211 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.725  | 180  | 718938     | 165.9980 | ng    | 97       |
| 41) Naphthalene                | 6.789  | 128  | 2304688    | 157.6488 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.821  | 127  | 707888m    | 155.8467 | ng    |          |
| 43) Hexachlorobutadiene        | 6.880  | 225  | 366343     | 145.6569 | ng    | 96       |
| 44) Caprolactam                | 7.120  | 113  | 311670     | 206.1650 | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.190  | 107  | 668975     | 148.9652 | ng    | 72       |
| 46) 2-Methylnaphthalene        | 7.318  | 142  | 1550532    | 162.6920 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.398  | 142  | 1508355    | 164.6813 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.398  | 142  | 3058609m   | 327.0945 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.692  | 154  | 1788825    | 157.4108 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.451  | 216  | 680095     | 176.7412 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.446  | 237  | 366202     | 181.6885 | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.542  | 196  | 472122     | 181.9675 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.569  | 196  | 515590m    | 185.9253 | ng    |          |
| 56) 2-Chloronaphthalene        | 7.713  | 162  | 1407584    | 172.3873 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.996  | 156  | 1126733    | 186.6152 | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 7.996  | 156  | 1126733    | 186.6152 | ng    | 89       |
| 59) Diphenyl Ether             | 7.777  | 170  | 1050095    | 183.6337 | ng    | 76       |
| 60) 2-Nitroaniline             | 7.788  | 65   | 434226     | 112.7186 | ng    | 45       |
| 61) Coumarin                   | 7.980  | 146  | 601806     | 189.5653 | ng    | 87       |
| 62) Acenaphthylene             | 8.071  | 152  | 2137566    | 185.6211 | ng    | 97       |
| 63) Dimethylphthalate          | 7.948  | 163  | 1584030    | 164.8737 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.991  | 165  | 329791     | 154.4201 | ng    | 65       |
| 65) Acenaphthene               | 8.221  | 153  | 1434479    | 175.7093 | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM  
 Data File: 7M95170.D  
 Acq On : 10/ 8/18 13:29

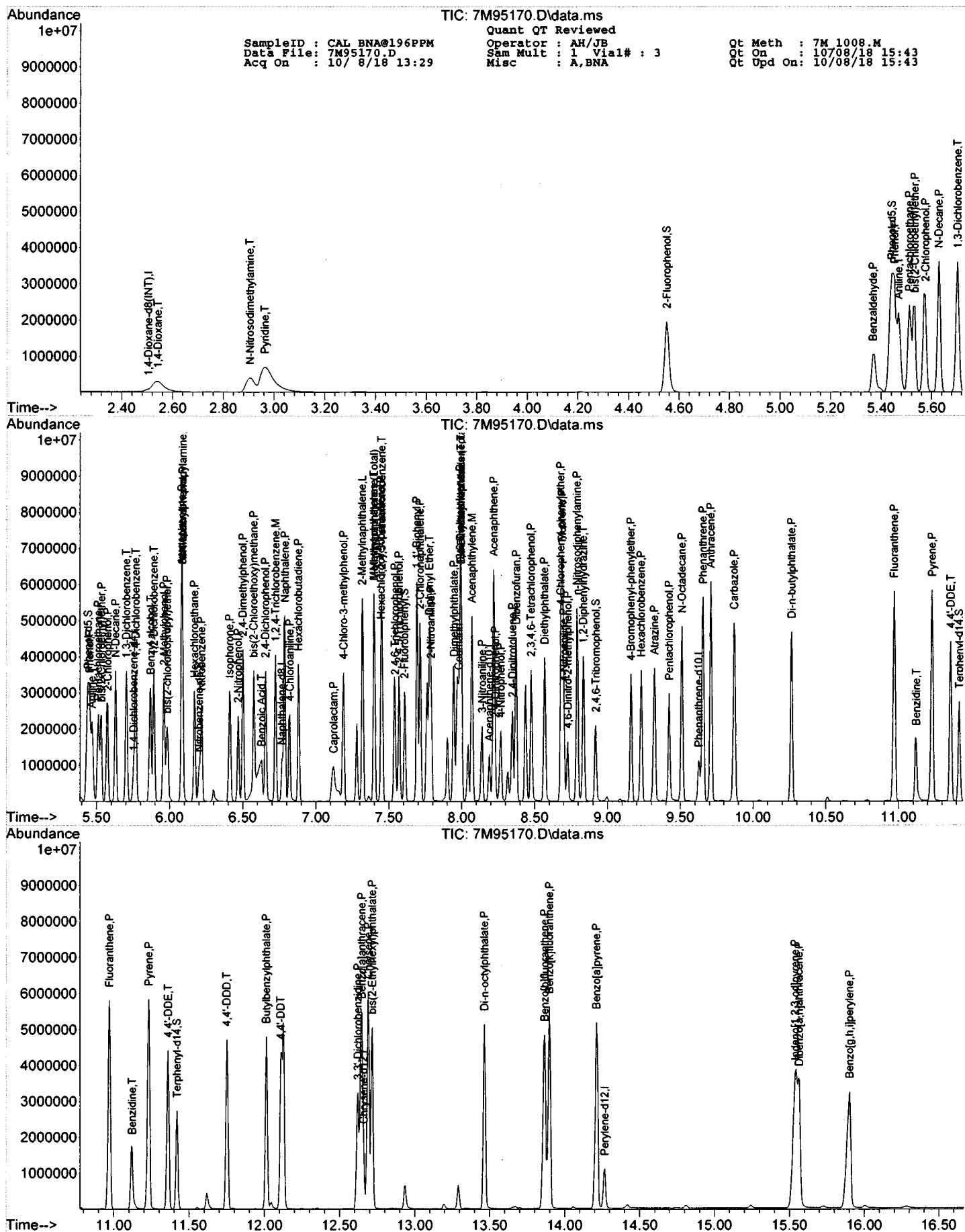
Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:43  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QI on | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|-------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.140  | 138   | 377296   | 182.2809 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.231  | 184   | 202399   | 147.9360 | ng    | 29       |
| 68) Dibenzofuran               | 8.376  | 168   | 2011927  | 172.8561 | ng    | 83       |
| 69) 2,4-Dinitrotoluene         | 8.349  | 165   | 517792   | 174.2989 | ng    | 57       |
| 70) 4-Nitrophenol              | 8.269  | 65    | 299028   | 127.7911 | ng    | 79       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.477  | 232   | 443750   | 185.3375 | ng    | 83       |
| 72) Fluorene                   | 8.691  | 166   | 1525863  | 158.4203 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.680  | 204   | 730186   | 157.2629 | ng    | 86       |
| 74) Diethylphthalate           | 8.568  | 149   | 1619588  | 169.2335 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.701  | 138   | 465093   | 186.4110 | ng    | 69       |
| 76) Atrazine                   | 9.321  | 200   | 511547   | 180.8146 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.728  | 198   | 259022   | 144.6528 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.792  | 169   | 1441794  | 175.6914 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.835  | 77    | 1580163  | 140.1477 | ng    | 78       |
| 82) 4-Bromophenyl-phenylether  | 9.161  | 248   | 474669   | 179.5322 | ng    | 83       |
| 83) Hexachlorobenzene          | 9.230  | 284   | 484690   | 188.4811 | ng    | 67       |
| 84) N-Octadecane               | 9.513  | 57    | 813806   | 108.2014 | ng    | 60       |
| 85) Pentachlorophenol          | 9.423  | 266   | 330678   | 177.1206 | ng    | 96       |
| 86) Phenanthrene               | 9.658  | 178   | 2447189  | 172.6009 | ng    | 99       |
| 87) Anthracene                 | 9.711  | 178   | 2515556  | 172.0753 | ng    | 97       |
| 88) Carbazole                  | 9.871  | 167   | 2350977  | 177.9316 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.267 | 149   | 2719641  | 158.9498 | ng    | 97       |
| 90) Fluoranthene               | 10.972 | 202   | 2627842  | 167.3181 | ng    | 94       |
| 92) Pyrene                     | 11.234 | 202   | 2635055  | 176.8752 | ng    | 90       |
| 93) Benzidine                  | 11.121 | 184   | 784936   | 178.0820 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.362 | 246   | 569926   | 203.1705 | ng    | 93       |
| 96) 4,4'-DDD                   | 11.752 | 235   | 990794   | 207.4978 | ng    | 96       |
| 97) Butylbenzylphthalate       | 12.014 | 149   | 1243221  | 175.7388 | ng    | 72       |
| 98) 4,4'-DDT                   | 12.110 | 235   | 820798   | 200.8528 | ng    | 98       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252   | 719960   | 233.2657 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.649 | 228   | 2529340  | 184.5583 | ng    | 97       |
| 101) Chrysene                  | 12.692 | 228   | 2318553  | 179.7200 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.719 | 149   | 1678899  | 179.9113 | ng    | 92       |
| 104) Di-n-octylphthalate       | 13.467 | 149   | 2886457  | 169.0753 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.867 | 252   | 2524019m | 189.1025 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.899 | 252   | 2251771m | 174.3642 | ng    |          |
| 107) Benzo[a]pyrene            | 14.215 | 252   | 2372366  | 187.3786 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.539 | 276   | 2584440  | 205.6211 | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.566 | 278   | 2143717  | 175.9457 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.903 | 276   | 2160605  | 206.3428 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@0.5PPM  
Data File: 7M95176.D  
Acq On : 10/ 8/18 15:50

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 16:14  
Qt Upd On: 10/07/18 16:40

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|------------|--------|-------|----------|
| -----                          |        |      |            |        |       |          |
| Internal Standards             |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 80950      | 40.00  | ng    | 0.05     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 138488     | 40.00  | ng    | 0.04     |
| 31) Naphthalene-d8             | 6.762  | 136  | 512096     | 40.00  | ng    | 0.04     |
| 50) Acenaphthene-d10           | 8.172  | 164  | 294601     | 40.00  | ng    | 0.04     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 507907     | 40.00  | ng    | 0.04     |
| 91) Chrysene-d12               | 12.644 | 240  | 480570     | 40.00  | ng    | 0.02     |
| 103) Perylene-d12              | 14.262 | 264  | 416727     | 40.00  | ng    | 0.03     |
| System Monitoring Compounds    |        |      |            |        |       |          |
| 11) 2-Fluorophenol             | 0.000  | 112  | 0          | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery = | 0.00%  |       |          |
| 16) Phenol-d5                  | 0.000  | 99   | 0d         | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery = | 0.00%  |       |          |
| 32) Nitrobenzene-d5            | 0.000  | 128  | 0          | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery = | 0.00%  |       |          |
| 55) 2-Fluorobiphenyl           | 0.000  | 172  | 0d         | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery = | 0.00%  |       |          |
| 80) 2,4,6-Tribromophenol       | 0.000  | 330  | 0          | 0.00   | ng    |          |
| Spiked Amount 100.000          |        |      | Recovery = | 0.00%  |       |          |
| 94) Terphenyl-d14              | 0.000  | 244  | 0d         | 0.00   | ng    |          |
| Spiked Amount 50.000           |        |      | Recovery = | 0.00%  |       |          |
| Target Compounds               |        |      |            |        |       |          |
| 8) 1,4-Dioxane                 | 2.552  | 88   | 718m       | 0.3881 | ng    |          |
| 9) Pyridine                    | 0.000  |      | 0          | N.D.   | d     |          |
| 10) N-Nitrosodimethylamine     | 0.000  |      | 0          | N.D.   | d     |          |
| 12) Benzaldehyde               | 0.000  |      | 0          | N.D.   | d     |          |
| 13) Aniline                    | 5.464  | 93   | 2447m      | 0.3194 | ng    |          |
| 14) Pentachloroethane          | 0.000  |      | 0          | N.D.   | d     |          |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 2550       | 0.5388 | ng    | 81       |
| 17) Phenol                     | 0.000  |      | 0          | N.D.   | d     |          |
| 18) 2-Chlorophenol             | 0.000  |      | 0          | N.D.   | d     |          |
| 19) N-Decane                   | 0.000  |      | 0          | N.D.   | d     |          |
| 20) 1,3-Dichlorobenzene        | 0.000  |      | 0          | N.D.   | d     |          |
| 22) 1,4-Dichlorobenzene        | 0.000  |      | 0          | N.D.   | d     |          |
| 23) 1,2-Dichlorobenzene        | 0.000  |      | 0          | N.D.   | d     |          |
| 24) Benzyl alcohol             | 0.000  |      | 0          | N.D.   | d     |          |
| 25) bis(2-chloroisopropyl)...  | 0.000  |      | 0          | N.D.   | d     |          |
| 26) 2-Methylphenol             | 5.950  | 108  | 2317       | 0.5336 | ng    | 95       |
| 27) Acetophenone               | 0.000  |      | 0          | N.D.   | d     |          |
| 28) Hexachloroethane           | 0.000  |      | 0          | N.D.   | d     |          |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 1608       | 0.3189 | ng    | 85       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 2319       | 0.4307 | ng    | 100      |
| 33) Nitrobenzene               | 0.000  |      | 0          | N.D.   | d     |          |
| 34) Isophorone                 | 0.000  |      | 0          | N.D.   | d     |          |
| 35) 2-Nitrophenol              | 0.000  |      | 0          | N.D.   | d     |          |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 2242       | 0.4045 | ng    | 98       |
| 37) Benzoic Acid               | 0.000  |      | 0          | N.D.   | d     |          |
| 38) bis(2-Chloroethoxy)met...  | 0.000  |      | 0          | N.D.   | d     |          |
| 39) 2,4-Dichlorophenol         | 6.644  | 162  | 1744       | 0.4435 | ng    | 92       |
| 40) 1,2,4-Trichlorobenzene     | 0.000  |      | 0          | N.D.   | d     |          |
| 41) Naphthalene                | 6.778  | 128  | 8097       | 0.5849 | ng    | 97       |
| 42) 4-Chloroaniline            | 6.810  | 127  | 1975       | 0.3955 | ng    | 86       |
| 43) Hexachlorobutadiene        | 0.000  |      | 0          | N.D.   | d     |          |
| 44) Caprolactam                | 0.000  |      | 0          | N.D.   | d     |          |
| 45) 4-Chloro-3-methylphenol    | 0.000  |      | 0          | N.D.   | d     |          |
| 46) 2-Methylnaphthalene        | 0.000  |      | 0          | N.D.   | d     |          |
| 47) 1-Methylnaphthalene        | 0.000  |      | 0          | N.D.   | d     |          |
| 48) Methylnaphthalenes (To...  | 0.000  |      | 0          | N.D.   | d     |          |
| 49) 1,1'-Biphenyl              | 0.000  |      | 0          | N.D.   | d     |          |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000  |      | 0          | N.D.   | d     |          |
| 52) Hexachlorocyclopentadiene  | 0.000  |      | 0          | N.D.   | d     |          |
| 53) 2,4,6-Trichlorophenol      | 0.000  |      | 0          | N.D.   | d     |          |
| 54) 2,4,5-Trichlorophenol      | 0.000  |      | 0          | N.D.   | d     |          |
| 56) 2-Chloronaphthalene        | 0.000  |      | 0          | N.D.   | d     |          |
| 57) 1,4-Dimethylnaphthalene    | 0.000  |      | 0          | N.D.   | d     |          |
| 58) Dimethylnaphthalenes (...) | 0.000  |      | 0          | N.D.   | d     |          |
| 59) Diphenyl Ether             | 0.000  |      | 0          | N.D.   | d     |          |
| 60) 2-Nitroaniline             | 0.000  |      | 0          | N.D.   | d     |          |
| 61) Coumarin                   | 0.000  |      | 0          | N.D.   | d     |          |
| 62) Acenaphthylene             | 0.000  |      | 0          | N.D.   | d     |          |
| 63) Dimethylphthalate          | 0.000  |      | 0          | N.D.   | d     |          |
| 64) 2,6-Dinitrotoluene         | 0.000  |      | 0          | N.D.   | d     |          |
| 65) Acenaphthene               | 0.000  |      | 0          | N.D.   | d     |          |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@0.5PPM

Operator : AH/JB

Qt Meth : 7M\_1008.M

Data File: 7M95176.D

Sam Mult : 1 Vial# : 9

Qt On : 10/08/18 16:14

Acq On : 10/ 8/18 15:50

Misc : A,BNA

Qt Upd On: 10/07/18 16:40

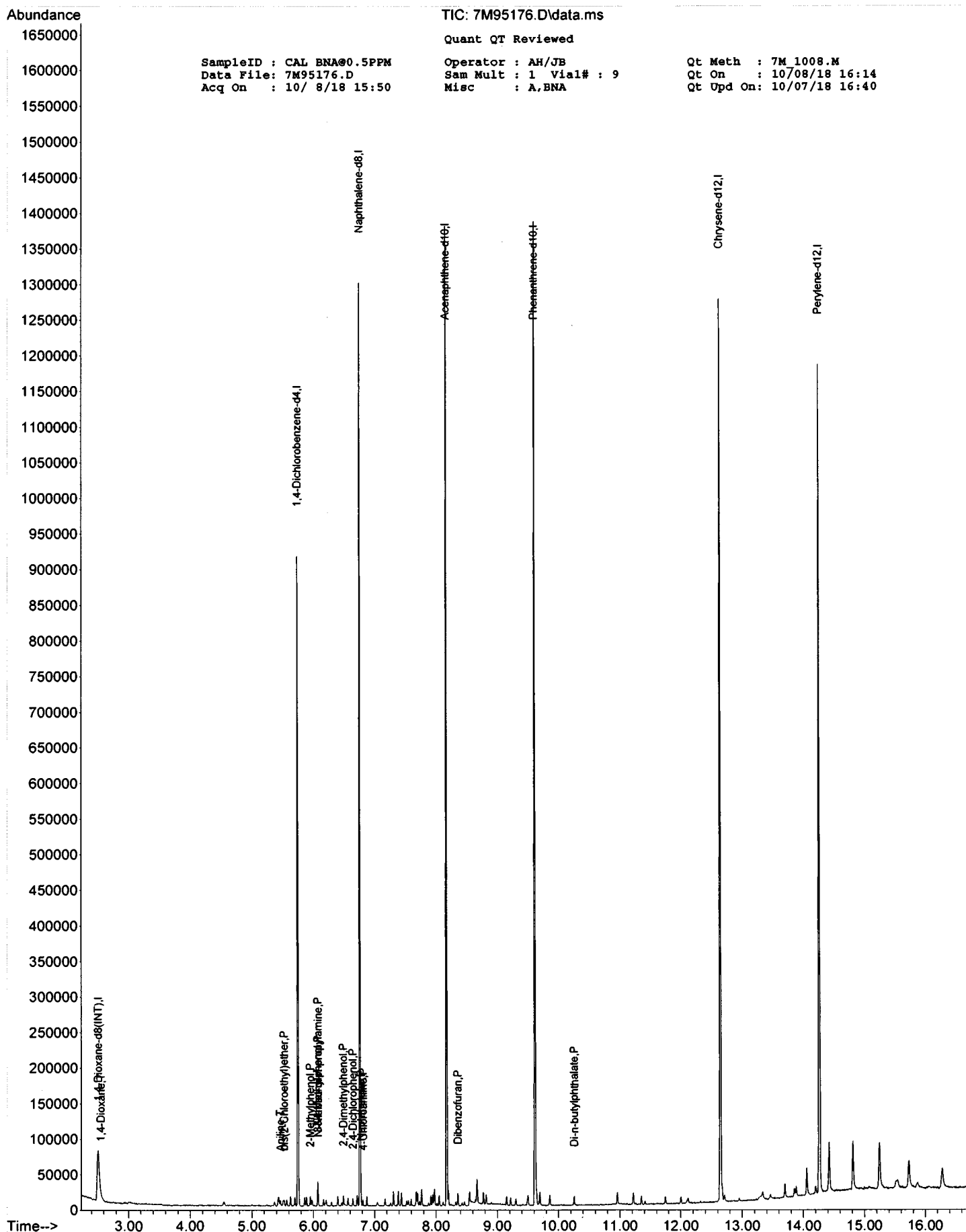
Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QI on | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|-------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |       | 0        | N.D.   | d     |          |
| 67) 2,4-Dinitrophenol          | 0.000  |       | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.354  | 168   | 6544     | 0.5444 | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 0.000  |       | 0        | N.D.   | d     |          |
| 70) 4-Nitrophenol              | 0.000  |       | 0        | N.D.   | d     |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |       | 0        | N.D.   | d     |          |
| 72) Fluorene                   | 0.000  |       | 0        | N.D.   | d     |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |       | 0        | N.D.   | d     |          |
| 74) Diethylphthalate           | 0.000  |       | 0        | N.D.   | d     |          |
| 75) 4-Nitroaniline             | 0.000  |       | 0        | N.D.   | d     |          |
| 76) Atrazine                   | 0.000  |       | 0        | N.D.   | d     |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |       | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |       | 0        | N.D.   | d     |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |       | 0        | N.D.   | d     |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |       | 0        | N.D.   | d     |          |
| 83) Hexachlorobenzene          | 0.000  |       | 0        | N.D.   | d     |          |
| 84) N-Octadecane               | 0.000  |       | 0        | N.D.   | d     |          |
| 85) Pentachlorophenol          | 0.000  |       | 0        | N.D.   | d     |          |
| 86) Phenanthrene               | 0.000  |       | 0        | N.D.   | d     |          |
| 87) Anthracene                 | 0.000  |       | 0        | N.D.   | d     |          |
| 88) Carbazole                  | 0.000  |       | 0        | N.D.   | d     |          |
| 89) Di-n-butylphthalate        | 10.256 | 149   | 6668     | 0.3583 | ng    | 96       |
| 90) Fluoranthene               | 0.000  |       | 0        | N.D.   | d     |          |
| 92) Pyrene                     | 0.000  |       | 0        | N.D.   | d     |          |
| 93) Benzidine                  | 0.000  |       | 0        | N.D.   | d     |          |
| 95) 4,4'-DDE                   | 0.000  |       | 0        | N.D.   | d     |          |
| 96) 4,4'-DDD                   | 0.000  |       | 0        | N.D.   | d     |          |
| 97) Butylbenzylphthalate       | 0.000  |       | 0        | N.D.   | d     |          |
| 98) 4,4'-DDT                   | 0.000  |       | 0        | N.D.   | d     |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |       | 0        | N.D.   | d     |          |
| 100) Benzo[a]anthracene        | 0.000  |       | 0        | N.D.   | d     |          |
| 101) Chrysene                  | 0.000  |       | 0        | N.D.   | d     |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |       | 0        | N.D.   | d     |          |
| 104) Di-n-octylphthalate       | 0.000  |       | 0        | N.D.   | d     |          |
| 105) Benzo[b]fluoranthene      | 0.000  |       | 0        | N.D.   | d     |          |
| 106) Benzo[k]fluoranthene      | 0.000  |       | 0        | N.D.   | d     |          |
| 107) Benzo[a]pyrene            | 0.000  |       | 0        | N.D.   | d     |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |       | 0        | N.D.   | d     |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |       | 0        | N.D.   | d     |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |       | 0        | N.D.   | d     |          |

(#)= qualifier out of range (m) = manual integration (+) = signals summed



Form 6  
Initial Calibration

Instrument: GCMS\_7

| 04                           |           |                |                    |         |           |                |                    |         |           | 015093         |                    |         |           |                |                    |         |           |                |                    | 015093 |           |                |                |       |           |                |                |   |           |                |                |   |           |                |                |
|------------------------------|-----------|----------------|--------------------|---------|-----------|----------------|--------------------|---------|-----------|----------------|--------------------|---------|-----------|----------------|--------------------|---------|-----------|----------------|--------------------|--------|-----------|----------------|----------------|-------|-----------|----------------|----------------|---|-----------|----------------|----------------|---|-----------|----------------|----------------|
| Level #                      | Data File | Cal Identifier | Analysis Date/Time | Level # | Data File | Cal Identifier | Analysis Date/Time | Level # | Data File | Cal Identifier | Analysis Date/Time | Level # | Data File | Cal Identifier | Analysis Date/Time | Level # | Data File | Cal Identifier | Analysis Date/Time |        |           |                |                |       |           |                |                |   |           |                |                |   |           |                |                |
| 1                            | 7M95177.D | CAL BNA@50PPM  | 10/08/18 16:13     | 2       | 7M95175.D | CAL BNA@2PPM   | 10/08/18 15:27     | 3       | 7M95169.D | CAL BNA@10PPM  | 10/08/18 13:05     | 4       | 7M95174.D | CAL BNA@20PPM  | 10/08/18 15:03     | 5       | 7M95173.D | CAL BNA@80PPM  | 10/08/18 14:40     | 6      | 7M95172.D | CAL BNA@120PPM | 10/08/18 14:16 | 7     | 7M95171.D | CAL BNA@160PPM | 10/08/18 13:53 | 8 | 7M95170.D | CAL BNA@196PPM | 10/08/18 13:29 | 9 | 7M95176.D | CAL BNA@0.5PPM | 10/08/18 15:50 |
| Compound                     | Col       | Mr             | Fit                | RF1     | RF2       | RF3            | RF4                | RF5     | RF6       | RF7            | RF8                | RF9     | AvgRt     | RT             | Corr1              | Corr2   | %Rsd      | LV1            | LV2                | LV3    | LV4       | LV5            | LV6            | LV7   | LV8       | LV9            |                |   |           |                |                |   |           |                |                |
| 1,4-Dioxane                  | 1         | 0              | Avg                | 0.9192  | 1.1824    | 0.9196         | 0.9532             | 0.9407  | 0.9409    | 0.9363         | 0.9544             | 0.7095  | 0.9402    | 2.54           | 1.00               | 1.00    | 13        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Pyridine                     | 1         | 0              | Qua                | 2.4474  | 2.9790    | 2.1569         | 2.5134             | 2.5477  | 2.5491    | 2.5516         | 2.6004             | ----    | 2.54      | 2.97           | 1.00               | 1.00    | 8.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| N-Nitrosodimethylamin        | 1         | 0              | Avg                | 1.3934  | 1.6205    | 1.2920         | 1.4062             | 1.4695  | 1.4580    | 1.4617         | 1.4979             | ----    | 1.45      | 2.91           | 1.00               | 1.00    | 6.5       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2-Fluorophenol               | 1         | 0              | Avg                | 2.0854  | 2.3564    | 1.8446         | 2.0999             | 2.1739  | 2.2007    | 2.1903         | 2.2146             | ----    | 2.15      | 4.55           | 0.995              | 0.998   | 6.9       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Benzaldehyde                 | 1         | 0              | Avg                | 1.1489  | 1.2212    | 1.2224         | 1.4526             | 1.0744  | 0.8985    | 0.7892         | ----               | ----    | 1.12      | 5.37           | 0.967              | 0.998   | 20        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Aniline                      | 1         | 0              | Avg                | 3.0158  | 2.4540    | 2.5073         | 3.1152             | 3.0647  | 2.9985    | 2.9629         | 2.9573             | 2.4182  | 2.83      | 5.46           | 1.00               | 1.00    | 10        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Pentachloroethane            | 1         | 0              | Avg                | 0.7127  | 0.8200    | 0.6369         | 0.7036             | 0.7320  | 0.7330    | 0.7309         | 0.7286             | ----    | 0.725     | 5.51           | 1.00               | 1.00    | 6.9       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| bis(2-Chloroethyl)ether      | 1         | 0              | Qua                | 2.1655  | 2.5532    | 1.9671         | 2.2064             | 2.1783  | 2.1559    | 2.1425         | 2.1050             | 2.5200  | 2.22      | 5.52           | 1.00               | 1.00    | 8.6       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Phenol-d5                    | 1         | 0              | Avg                | 3.0106  | 3.2708    | 2.6449         | 3.0642             | 3.1043  | 3.0946    | 3.0604         | 3.0654             | ----    | 3.04      | 5.43           | 1.00               | 1.00    | 5.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Phenol                       | 1         | 0              | Avg                | 2.9869  | 3.4311    | 2.6666         | 3.0210             | 3.0582  | 3.0368    | 2.9832         | 2.9620             | ----    | 3.02      | 5.44           | 1.00               | 1.00    | 6.9       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2-Chlorophenol               | 1         | 0              | Avg                | 2.2163  | 2.4976    | 1.9300         | 2.2065             | 2.2761  | 2.2808    | 2.2609         | 2.2759             | ----    | 2.24      | 5.57           | 1.00               | 1.00    | 6.9       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| N-Decane                     | 1         | 0              | Avg                | 1.9136  | 2.4041    | 1.7781         | 1.9477             | 1.9392  | 1.8766    | 1.8327         | 1.7897             | ----    | 1.94      | 5.63           | 0.999              | 1.00    | 10        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 1,3-Dichlorobenzene          | 1         | 0              | Avg                | 2.3621  | 2.8113    | 2.1153         | 2.3971             | 2.4165  | 2.4233    | 2.3833         | 2.3966             | ----    | 2.41      | 5.70           | 1.00               | 1.00    | 7.9       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 1,4-Dichlorobenzene          | 1         | 0              | Avg                | 1.4240  | 1.6867    | 1.2490         | 1.4235             | 1.4815  | 1.4796    | 1.4760         | 1.4573             | ----    | 1.46      | 5.76           | 1.00               | 1.00    | 8.2       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 1,2-Dichlorobenzene          | 1         | 0              | Avg                | 1.3427  | 1.5938    | 1.1702         | 1.3627             | 1.3950  | 1.3939    | 1.4008         | 1.3731             | ----    | 1.38      | 5.89           | 1.00               | 1.00    | 8.3       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Benzyl alcohol               | 1         | 0              | Avg                | 0.8500  | 0.9775    | 0.7418         | 0.8633             | 0.8989  | 0.9130    | 0.9099         | 0.9062             | ----    | 0.88      | 5.86           | 0.999              | 0.999   | 7.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| bis(2-chloroisopropyl) ether | 1         | 0              | Avg                | 1.3124  | 1.5928    | 1.1806         | 1.3526             | 1.3516  | 1.3488    | 1.3254         | 1.3052             | ----    | 1.35      | 5.98           | 1.00               | 1.00    | 8.5       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2-Methylphenol               | 1         | 0              | Avg                | 1.1566  | 1.2817    | 1.0234         | 1.1764             | 1.2176  | 1.2159    | 1.2227         | 1.2162             | 1.3384  | 1.21      | 5.95           | 1.00               | 1.00    | 7.2       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Acetophenone                 | 1         | 0              | Avg                | 1.7507  | 2.0988    | 1.5919         | 1.8050             | 1.7571  | 1.6742    | 1.6014         | 1.5050             | ----    | 1.72      | 6.08           | 0.995              | 1.00    | 11        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Hexachloroethane             | 1         | 0              | Avg                | 0.5202  | 0.5834    | 0.4495         | 0.5245             | 0.5433  | 0.5509    | 0.5531         | 0.5483             | ----    | 0.53      | 6.17           | 1.00               | 1.00    | 7.4       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| N-Nitroso-di-n-propyla       | 1         | 0              | Avg                | 0.8294  | 1.0297    | 0.7640         | 0.8685             | 0.8351  | 0.7886    | 0.7628         | 0.7274             | 0.9288  | 0.83      | 6.08           | 0.997              | 0.999   | 11        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 3,4-Methylenedioxyphenol     | 1         | 0              | Avg                | 1.2200  | 1.3508    | 1.0683         | 1.2493             | 1.2386  | 1.1750    | 1.1318         | 1.0548             | 1.3396  | 1.20      | 6.08           | 0.995              | 1.00    | 8.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Nitrobenzene-d5              | 1         | 0              | Avg                | 0.1226  | 0.1262    | 0.1069         | 0.1185             | 0.1308  | 0.1305    | 0.1331         | 0.1354             | ----    | 0.12      | 6.20           | 0.999              | 1.00    | 7.4       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Nitrobenzene                 | 1         | 0              | Avg                | 0.3283  | 0.3783    | 0.2821         | 0.3301             | 0.3383  | 0.3379    | 0.3390         | 0.3398             | ----    | 0.33      | 6.21           | 1.00               | 1.00    | 7.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Isophorone                   | 1         | 0              | Avg                | 0.6068  | 0.6678    | 0.5430         | 0.6173             | 0.6262  | 0.6258    | 0.6248         | 0.6256             | ----    | 0.61      | 7.40           | 1.00               | 1.00    | 5.6       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2-Nitrophenol                | 1         | 0              | Qua                | 0.1725  | 0.1643    | 0.1401         | 0.1699             | 0.1868  | 0.1943    | 0.1949         | 0.1991             | ----    | 0.17      | 6.46           | 0.998              | 0.999   | 11        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2,4-Dimethylphenol           | 1         | 0              | Avg                | 0.3278  | 0.3596    | 0.2840         | 0.3273             | 0.3355  | 0.3329    | 0.3377         | 0.3360             | 0.3502  | 0.33      | 6.49           | 1.00               | 1.00    | 6.3       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Benzoic Acid                 | 1         | 0              | Qua                | 0.3299  | 0.1827    | 0.1959         | 0.2907             | 0.3704  | 0.4048    | 0.4084         | 0.4239             | ----    | 0.32      | 6.56           | 0.993              | 0.998   | 29        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| bis(2-Chloroethoxy)methane   | 1         | 0              | Avg                | 0.4156  | 0.4624    | 0.3686         | 0.4196             | 0.4205  | 0.4212    | 0.4195         | 0.4153             | ----    | 0.41      | 6.56           | 1.00               | 1.00    | 6.0       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 2,4-Dichlorophenol           | 1         | 0              | Avg                | 0.2776  | 0.2845    | 0.2322         | 0.2767             | 0.2880  | 0.2936    | 0.2947         | 0.2958             | 0.2724  | 0.28      | 6.64           | 1.00               | 1.00    | 7.0       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 1,2,4-Trichlorobenzene       | 1         | 0              | Avg                | 0.3019  | 0.3601    | 0.2675         | 0.3055             | 0.3116  | 0.3169    | 0.3160         | 0.3149             | ----    | 0.31      | 6.71           | 1.00               | 1.00    | 8.1       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Naphthalene                  | 1         | 0              | Avg                | 1.0377  | 1.1829    | 0.8976         | 1.0574             | 1.0617  | 1.0503    | 1.0371         | 1.0096             | 1.2649  | 1.07      | 6.77           | 0.999              | 1.00    | 9.8       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 4-Chloroaniline              | 1         | 0              | Qua                | 0.3966  | 0.3224    | 0.3214         | 0.4134             | 0.3970  | 0.3669    | 0.3347         | 0.3101             | 0.3085  | 0.35      | 6.80           | 0.990              | 0.998   | 12        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Hexachlorobutadiene          | 1         | 0              | Avg                | 0.1545  | 0.1790    | 0.1353         | 0.1563             | 0.1583  | 0.1614    | 0.1597         | 0.1604             | ----    | 0.15      | 6.87           | 1.00               | 1.00    | 7.5       | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| Caprolactam                  | 1         | 0              | Avg                | 0.1138  | 0.0993    | 0.0963         | 0.1139             | 0.1210  | 0.1238    | 0.1255         | 0.1365             | ----    | 0.11      | 7.07           | 0.996              | 0.999   | 12        | 50.00          | 2.00               | 10.00  | 20.00     | 80.00          | 120.0          | 160.0 | 196.0     | 0.50           |                |   |           |                |                |   |           |                |                |
| 4-Chloro-3-methylphenol      | 1         | 0              | Avg                | 0.2705  | 0.2910    | 0.2326         | 0.2725             | 0.2866  | 0.2895    | 0.2922         | 0.2930             | ----    | 0.27      | 7.17           | 1.00               | 1.00    | 7.4       | 50.00          | 2.00               | 10.    |           |                |                |       |           |                |                |   |           |                |                |   |           |                |                |

Avg Rsd: 9.492

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Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(f applicable)

Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.



Form 6  
Initial Calibration

Instrument: GCMS\_7

| Data File: Cal Identifier: Analysis Date/Time |                      |                       |                       |                  |                     |                         |                      |                |                | Data File: Cal Identifier: Analysis Date/Time |                |                  |                    |              |                |                   |              |                    |               |                        |          |                       |                 |                |          |                        |                       |                      |                       |                      |                   |              |                   |              |            |           |                    |              |        |          |               |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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| Level #                                       | 1                    | 3                     | 5                     | 7                | 9                   | Level #                 | 2                    | 4              | 6              | 8                                             | Level #        | 1                | 3                  | 5            | 7              | 9                 | Level #      | 2                  | 4             | 6                      | 8        | Level #               | 1               | 3              | 5        | 7                      | 9                     |                      |                       |                      |                   |              |                   |              |            |           |                    |              |        |          |               |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| Compound                                      | Hexachlorocyclopenta | 2,4,6-Trichlorophenol | 2,4,5-Trichlorophenol | 2-Fluorobiphenyl | 2-Chloronaphthalene | 1,4-Dimethylnaphthalene | Dimethylnaphthalenes | Diphenyl Ether | 2-Nitroaniline | Coumarin                                      | Acenaphthylene | Dimethylbthalate | 2,6-Dinitrotoluene | Acenaphthene | 3-Nitroaniline | 2,4-Dinitrophenol | Dibenzofuran | 2,4-Dinitrotoluene | 4-Nitrophenol | 2,3,4,6-Tetrachlorophe | Fluorene | 4-Chlorophenyl-phenyl | Diethylbthalate | 4-Nitroaniline | Atrazine | 4,6-Dinitro-2-methylph | n-Nitrosodiphenylamin | 2,4,6-Tribromophenol | 1,2-Diphenylhydrazine | 4-Bromophenyl-phenyl | Hexachlorobenzene | N-Octadecane | Pentachlorophenol | Phenanthrene | Anthracene | Carbazole | Di-n-butylbthalate | Fluoranthene | Pyrene | Benidine | Terphenyl-d14 |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| Col                                           | Mr                   | Fit                   | RF1                   | RF2              | RF3                 | RF4                     | RF5                  | RF6            | RF7            | RF8                                           | RF9            | AvgRt            | RT                 | Corr1        | Corr2          | %Rsd              | Lv1          | Lv2                | Lv3           | Lv4                    | Lv5      | Lv6                   | Lv7             | Lv8            | Lv9      | Lv1                    | Lv2                   | Lv3                  | Lv4                   | Lv5                  | Lv6               | Lv7          | Lv8               | Lv9          | Lv1        | Lv2       | Lv3                | Lv4          | Lv5    | Lv6      | Lv7           | Lv8 | Lv9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| 1                                             | 7M95177.D            |                       |                       |                  |                     |                         |                      |                |                |                                               |                | 0.2437           | 4.3                | 0.997        | 0.998          | 17                | 0.05         | 50.00              | 2.00          | 10.00                  | 20.00    | 80.00                 | 120.0           | 160.0          | 196.0    | 2                      | 7M95175.D             |                      |                       |                      |                   |              |                   |              |            |           |                    |              |        |          |               |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

Avg Rsd: 9.492

Note: Corr 1 = Correlation Coefficient for linear Eq.  
Corr 2 = Correlation Coefficient for quad Eq.a - failed the min rf criteria  
c - failed the minimum correlation coeff criteria(if applicable)

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Form 6  
Initial Calibration

Instrument GCMS\_7

| Level #                 | Data File | Cal Identifier | Analysis Date/Time | Level # | Data File | Cal Identifier | Analysis Date/Time | Calibration Level Concentrations |        |        |        |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |
|-------------------------|-----------|----------------|--------------------|---------|-----------|----------------|--------------------|----------------------------------|--------|--------|--------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1                       | 7M95177.D | CAL BNA@50PPM  | 10/08/18 16:13     | 2       | 7M95175.D | CAL BNA@2PPM   | 10/08/18 15:27     | LV1                              | LV2    | LV3    | LV4    | LV5   | LV6   | LV7   | LV8   | LV9   |      |       |       |       |       |       |       |       |       |       |
| 3                       | 7M95169.D | CAL BNA@10PPM  | 10/08/18 13:05     | 4       | 7M95174.D | CAL BNA@20PPM  | 10/08/18 15:03     | 50.00                            | 2.00   | 10.00  | 20.00  | 80.00 | 120.0 | 160.0 | 196.0 |       |      |       |       |       |       |       |       |       |       |       |
| 5                       | 7M95173.D | CAL BNA@80PPM  | 10/08/18 14:40     | 6       | 7M95172.D | CAL BNA@120PPM | 10/08/18 14:16     | 50.00                            | 2.00   | 10.00  | 20.00  | 80.00 | 120.0 | 160.0 | 196.0 |       |      |       |       |       |       |       |       |       |       |       |
| 7                       | 7M95171.D | CAL BNA@160PPM | 10/08/18 13:53     | 8       | 7M95170.D | CAL BNA@196PPM | 10/08/18 13:29     | 50.00                            | 2.00   | 10.00  | 20.00  | 80.00 | 120.0 | 160.0 | 196.0 |       |      |       |       |       |       |       |       |       |       |       |
| 9                       | 7M95176.D | CAL BNA@0.5PPM | 10/08/18 15:50     |         |           |                |                    | 50.00                            | 2.00   | 10.00  | 20.00  | 80.00 | 120.0 | 160.0 | 196.0 |       |      |       |       |       |       |       |       |       |       |       |
| Compound                | Col       | Mr             | Fit                | RF1     | RF2       | RF3            | RF4                | RF5                              | RF6    | RF7    | RF8    | RF9   | AvgRt | RT    | Corr1 | Corr2 | %Rsd | LV1   | LV2   | LV3   | LV4   | LV5   | LV6   | LV7   | LV8   | LV9   |
| 4,4'-DDE                | 1         | 0              | Avg                | 0.2340  | 0.2542    | 0.1951         | 0.2291             | 0.2450                           | 0.2496 | 0.2537 | 0.2571 | ----  | 0.240 | 11.35 | 0.999 | 1.00  | 8.6  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| 4,4'-DDD                | 1         | 0              | Avg                | 0.3980  | 0.3964    | 0.3285         | 0.3932             | 0.4249                           | 0.4332 | 0.4418 | 0.4469 | ----  | 0.408 | 11.75 | 0.998 | 0.999 | 9.4  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |       |
| Butylbenzylphthalate    | 1         | 0              | Qua                | 0.5024  | 0.4324    | 0.4348         | 0.4871             | 0.5433                           | 0.5551 | 0.5581 | 0.5608 | ----  | 0.509 | 12.00 | 1.00  | 1.00  | 11   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 4,4'-DDT                | 1         | 0              | Qua                | 0.2937  | ----      | 0.1946         | 0.2496             | 0.3381                           | 0.3555 | 0.3604 | 0.3702 | ----  | 0.309 | 12.10 | 0.998 | 0.999 | 21   |       | 50.00 |       | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| 3,3'-Dichlorobenzidine  | 1         | 0              | Qua                | 0.3338  | 0.2373    | 0.2798         | 0.3422             | 0.3514                           | 0.3325 | 0.3247 | 0.3248 | ----  | 0.316 | 12.61 | 0.999 | 1.00  | 12   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofluoranthene       | 1         | 0              | Avg                | 1.0642  | 1.2050    | 0.9376         | 1.0668             | 1.1231                           | 1.1287 | 1.1357 | 1.1410 | ----  | 1.10  | 12.63 | 1.00  | 1.00  | 7.2  | 0.80  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Chrysene                | 1         | 0              | Avg                | 0.9916  | 1.0527    | 0.8673         | 1.0014             | 1.0392                           | 1.0569 | 1.0505 | 1.0459 | ----  | 1.01  | 12.68 | 1.00  | 1.00  | 6.3  | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| bis(2-Ethylhexyl)phthal | 1         | 0              | Qua                | 0.6840  | 0.5790    | 0.5824         | 0.6487             | 0.7450                           | 0.7529 | 0.7508 | 0.7574 | ----  | 0.688 | 12.71 | 1.00  | 1.00  | 11   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Di-n-octylphthalate     | 1         | 0              | Qua                | 1.2965  | 0.9298    | 1.0326         | 1.2104             | 1.4208                           | 1.4801 | 1.4701 | 1.4540 | ----  | 1.29  | 13.46 | 0.999 | 0.999 | 16   | 0.01  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofluoranthene       | 1         | 0              | Qua                | 1.1258  | 1.0867    | 0.9346         | 1.0683             | 1.2193                           | 1.2557 | 1.2075 | 1.2714 | ----  | 1.15  | 13.86 | 0.998 | 0.999 | 10   | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofluoranthene       | 1         | 0              | Avg                | 1.1389  | 1.0704    | 0.8837         | 1.1185             | 1.1216                           | 1.1457 | 1.1945 | 1.1343 | ----  | 1.10  | 13.89 | 0.999 | 0.999 | 8.6  | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofluoranthene       | 1         | 0              | Avg                | 1.0983  | 1.0051    | 0.8668         | 1.0234             | 1.1416                           | 1.1679 | 1.1814 | 1.1350 | ----  | 1.08  | 14.21 | 1.00  | 1.00  | 10   | 0.70  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Indenofluoranthene      | 1         | 0              | Avg                | 1.1504  | 1.0578    | 0.9153         | 1.0934             | 1.2048                           | 1.2696 | 1.2854 | 1.3019 | ----  | 1.16  | 15.54 | 0.998 | 0.999 | 12   | 0.50  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Dibenzofluoranthene     | 1         | 0              | Avg                | 0.9529  | 0.8842    | 0.7667         | 0.9094             | 1.0071                           | 1.0586 | 1.0674 | 1.0798 | ----  | 0.966 | 15.56 | 0.999 | 1.00  | 11   | 0.40  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |
| Benzofluoranthene       | 1         | 0              | Avg                | 0.9508  | 0.9261    | 0.7800         | 0.9221             | 1.0008                           | 1.0524 | 1.0567 | 1.0883 | ----  | 0.972 | 15.89 | 0.999 | 1.00  | 10   | 0.50  | 50.00 | 2.00  | 10.00 | 20.00 | 80.00 | 120.0 | 160.0 | 196.0 |

## Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

## Note:

Avg Rsd: 9.492

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

SampleID : CAL\_BNA@50PPM  
Data File: 7M95177.D  
Acq On : 10/ 8/18 16:13

Operator : AH/JB  
Sam Mult : 1 Vial# : 10  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 16:28  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 79420      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 134473     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.757  | 136  | 495463     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.173  | 164  | 286738     | 40.00   | ng    | -0.01    |
| 77) Phenanthrene-d10           | 9.615  | 188  | 488913     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.649 | 240  | 483764     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.273 | 264  | 413657     | 40.00   | ng    | 0.02     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 207033     | 45.33   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 45.33%  |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 298883     | 43.64   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 43.64%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 37994      | 23.21   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 46.42%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.590  | 172  | 219549     | 24.59   | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 49.18%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 54891      | 56.71   | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 56.71%  |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 198434     | 24.19   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.38%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
|                                |        |      |            |         |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 91256      | 48.6272 | ng    | 90       |
| 9) Pyridine                    | 2.969  | 79   | 242967     | 42.1344 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 138339     | 37.6880 | ng    | 66       |
| 12) Benzaldehyde               | 5.368  | 77   | 114062     | 33.6387 | ng    | 75       |
| 13) Aniline                    | 5.464  | 93   | 299396m    | 39.8339 | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 70755      | 44.6781 | ng    | 83       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 214983     | 44.0056 | ng    | 74       |
| 17) Phenol                     | 5.443  | 94   | 296527     | 38.2752 | ng    | 76       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 220023     | 43.3991 | ng    | 77       |
| 19) N-Decane                   | 5.630  | 57   | 189977     | 30.4874 | ng    | 84       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 234499     | 41.9303 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 239369     | 43.9189 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 225698     | 43.2386 | ng    | 96       |
| 24) Benzyl alcohol             | 5.859  | 108  | 142893     | 53.8573 | ng    | 67       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 220608     | 25.9200 | ng    | 94       |
| 26) 2-Methylphenol             | 5.950  | 108  | 194430     | 43.3181 | ng    | 97       |
| 27) Acetophenone               | 6.078  | 105  | 294282     | 41.3861 | ng    | 67       |
| 28) Hexachloroethane           | 6.169  | 117  | 87454      | 38.0853 | ng    | 86       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 139429     | 29.5337 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.078  | 108  | 205076     | 39.2268 | ng    | 98       |
| 33) Nitrobenzene               | 6.212  | 77   | 203326     | 30.2184 | ng    | 72       |
| 34) Isophorone                 | 6.399  | 82   | 375852     | 32.6591 | ng    | 85       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 106843     | 39.6116 | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 203044     | 37.3950 | ng    | 87       |
| 37) Benzoic Acid               | 6.565  | 105  | 204339     | 50.4268 | ng    | 43       |
| 38) bis(2-Chloroethoxy)met...  | 6.565  | 93   | 257422     | 38.7396 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 171962     | 43.2826 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.714  | 180  | 187013     | 40.5980 | ng    | 98       |
| 41) Naphthalene                | 6.773  | 128  | 642691     | 45.8550 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 246877m    | 51.1016 | ng    |          |
| 43) Hexachlorobutadiene        | 6.869  | 225  | 95716      | 35.7807 | ng    | 96       |
| 44) Caprolactam                | 7.067  | 113  | 70501      | 43.8466 | ng    | 58       |
| 45) 4-Chloro-3-methylphenol    | 7.168  | 107  | 167571     | 35.0828 | ng    | 73       |
| 46) 2-Methylnaphthalene        | 7.302  | 142  | 431855     | 42.6034 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.382  | 142  | 412833     | 42.3776 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.382  | 142  | 844995m    | 84.9619 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.676  | 154  | 493540     | 40.8329 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.435  | 216  | 184622     | 45.3333 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.430  | 237  | 86283      | 58.1151 | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 117733m    | 42.8749 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 125203     | 42.6593 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.697  | 162  | 381729     | 44.1725 | ng    | 89       |
| 57) 1,4-Dimethylnaphthalene    | 7.975  | 156  | 336709     | 52.6922 | ng    | 86       |
| 58) Dimethylnaphthalenes (...) | 7.975  | 156  | 336709     | 52.6922 | ng    | 86       |
| 59) Diphenyl Ether             | 7.761  | 170  | 281232     | 46.4680 | ng    | 76       |
| 60) 2-Nitroaniline             | 7.767  | 65   | 116388     | 28.5465 | ng    | 48       |
| 61) Coumarin                   | 7.948  | 146  | 157315     | 46.8207 | ng    | 84       |
| 62) Acenaphthylene             | 8.050  | 152  | 567690     | 46.5784 | ng    | 98       |
| 63) Dimethylphthalate          | 7.916  | 163  | 413168     | 40.6331 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 94526      | 41.8198 | ng    | 59       |
| 65) Acenaphthene               | 8.199  | 153  | 391790     | 45.3439 | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95177.D Sam Mult : 1 Vial# : 10 Qt On : 10/08/18 16:28  
 Acq On : 10/ 8/18 16:13 Misc : A,BNA Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.114  | 138  | 107344   | 49.0007 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.205  | 184  | 34202    | 27.6422 | ng    | 56       |
| 68) Dibenzofuran               | 8.354  | 168  | 533718   | 45.0039 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.322  | 165  | 122630   | 39.0033 | ng    | 58       |
| 70) 4-Nitrophenol              | 8.237  | 65   | 71415    | 28.8366 | ng    | 85       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 104208   | 41.1236 | ng    | 84       |
| 72) Fluorene                   | 8.669  | 166  | 440724   | 43.2342 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.664  | 204  | 200072   | 40.7141 | ng    | 84       |
| 74) Diethylphthalate           | 8.547  | 149  | 419755   | 41.4422 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.669  | 138  | 120518   | 45.6404 | ng    | 67       |
| 76) Atrazine                   | 9.300  | 200  | 126241   | 42.1613 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.701  | 198  | 48249    | 31.1469 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 380175   | 44.2427 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.814  | 77   | 432030   | 36.5939 | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.145  | 248  | 114249   | 41.2681 | ng    | 85       |
| 83) Hexachlorobenzene          | 9.214  | 284  | 117738   | 43.7251 | ng    | 69       |
| 84) N-Octadecane               | 9.497  | 57   | 233961   | 29.7075 | ng    | 66       |
| 85) Pentachlorophenol          | 9.407  | 266  | 69369    | 43.7770 | ng    | 97       |
| 86) Phenanthrene               | 9.642  | 178  | 651080   | 43.8552 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178  | 671550   | 43.8706 | ng    | 99       |
| 88) Carbazole                  | 9.855  | 167  | 601318   | 43.4630 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.251 | 149  | 714929   | 39.9045 | ng    | 97       |
| 90) Fluoranthene               | 10.961 | 202  | 673087   | 40.9285 | ng    | 92       |
| 92) Pyrene                     | 11.218 | 202  | 684987   | 42.9959 | ng    | 93       |
| 93) Benzidine                  | 11.111 | 184  | 214188   | 38.2008 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.351 | 246  | 141506   | 47.1720 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 240700   | 47.1382 | ng    | 96       |
| 97) Butylbenzylphthalate       | 12.003 | 149  | 303851   | 40.1649 | ng    | 75       |
| 98) 4,4'-DDT                   | 12.104 | 235  | 177614   | 40.6430 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 201859   | 46.7367 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.633 | 228  | 643545   | 43.9109 | ng    | 99       |
| 101) Chrysene                  | 12.676 | 228  | 599672   | 43.4671 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 413643   | 41.4502 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.461 | 149  | 670427   | 38.4609 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.862 | 252  | 582139m  | 42.7154 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.894 | 252  | 588897m  | 44.6607 | ng    |          |
| 107) Benzo[a]pyrene            | 14.215 | 252  | 567904   | 43.9305 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.540 | 276  | 594866   | 46.3525 | ng    | 87       |
| 109) Dibenzo[a,h]anthracene    | 15.561 | 278  | 492754   | 51.8691 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.892 | 276  | 491669   | 45.9875 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

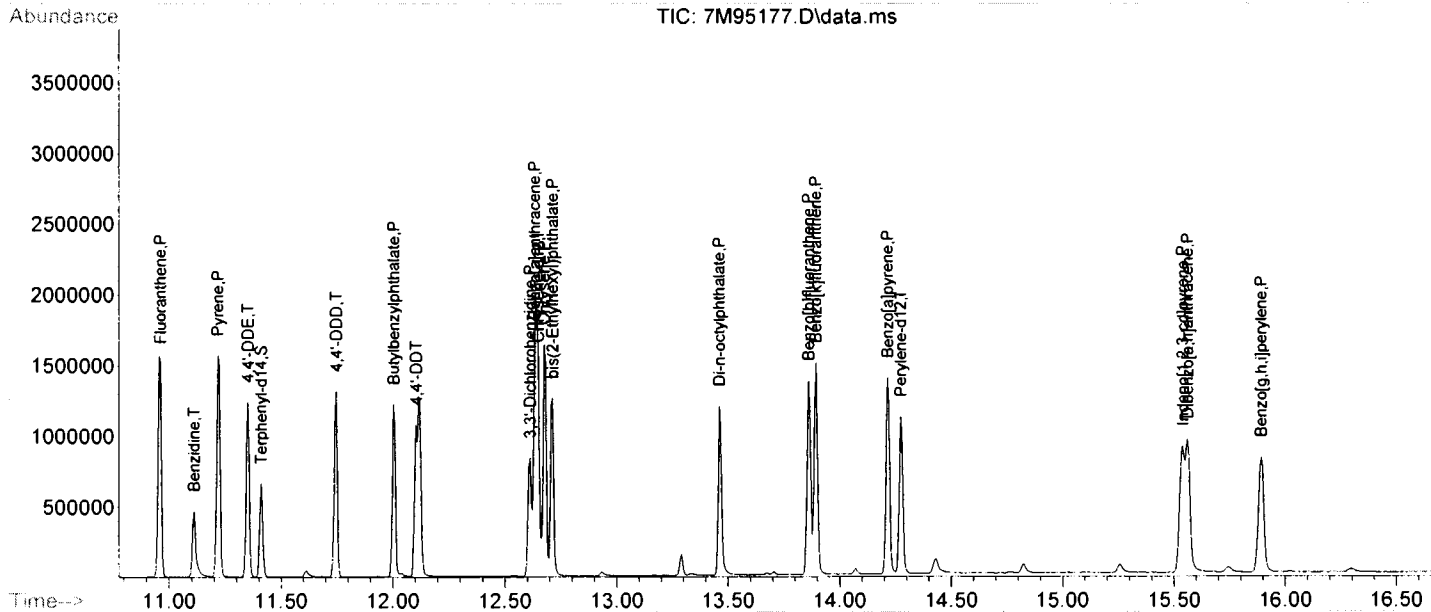
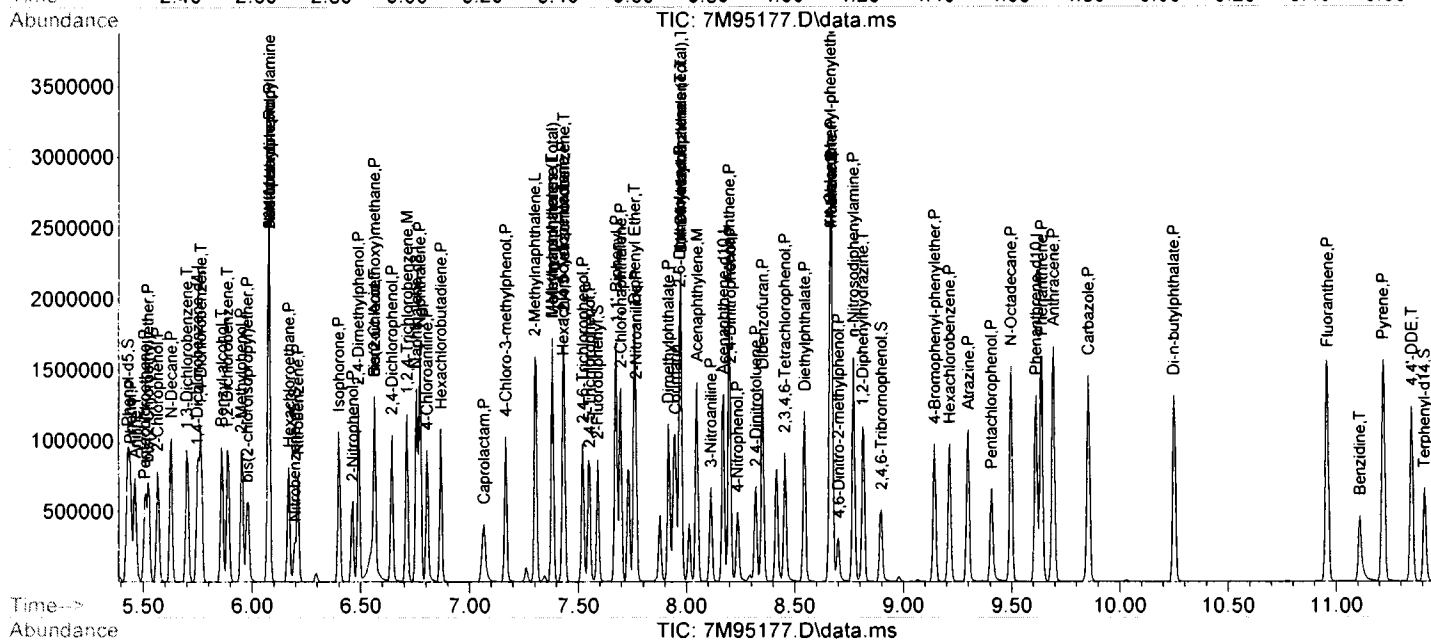
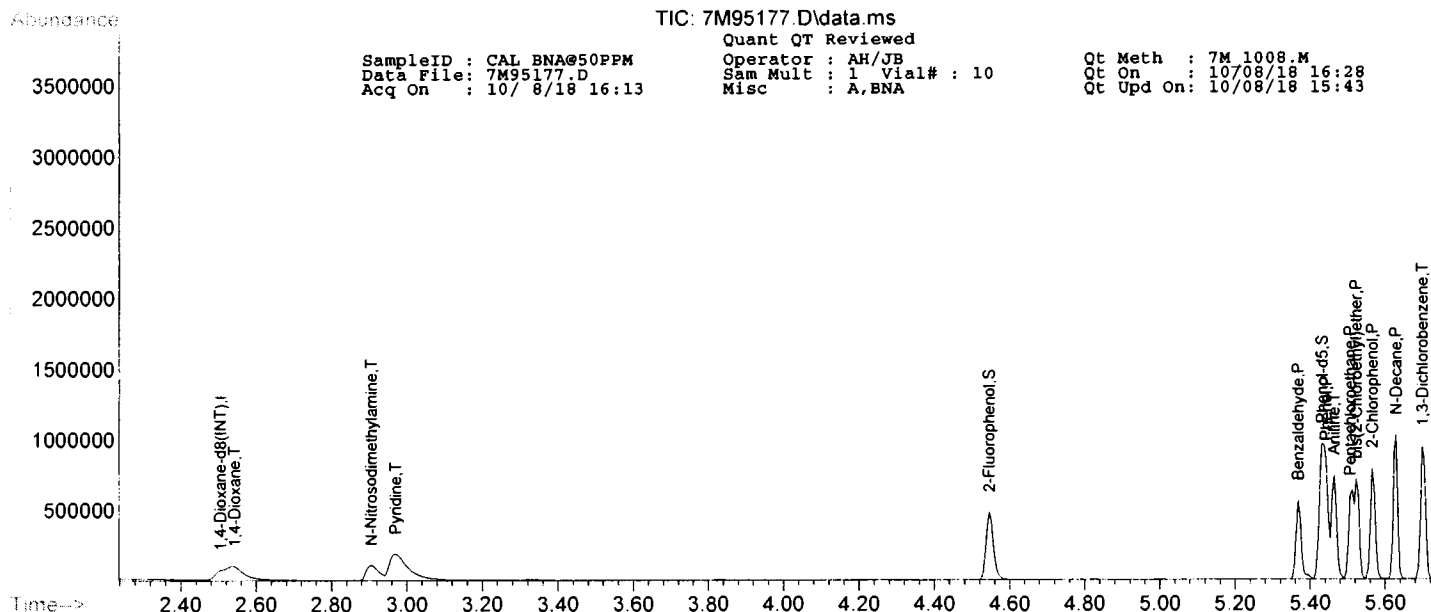
TIC: 7M95177.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@50PPM  
 Data File: 7M95177.D  
 Acq On : 10/ 8/18 16:13

Operator : AH/JB  
 Sam Mult : 1 Vial# : 10  
 Misc : A,BNA

Qt Meth : 7M 1008.M  
 Qt On : 10/08/18 16:28  
 Qt Upd On: 10/08/18 15:43



SampleID : CAL BNA@2PPM  
Data File: 7M95175.D  
Acq On : 10/ 8/18 15:27

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:45  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.504  | 96   | 82999    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.747  | 152  | 140993   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.762  | 136  | 521955   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.178  | 164  | 299110   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.620  | 188  | 516763   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.644 | 240  | 500060   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.252 | 264  | 434960   | 40.00 | ng    | 0.00     |

|                             |        |     |          |      |       |      |
|-----------------------------|--------|-----|----------|------|-------|------|
| System Monitoring Compounds |        |     |          |      |       |      |
| 11) 2-Fluorophenol          | 4.545  | 112 | 9779m    | 2.05 | ng    | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =    | 2.05% |      |
| 16) Phenol-d5               | 5.426  | 99  | 13574    | 1.90 | ng    | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =    | 1.90% |      |
| 32) Nitrobenzene-d5         | 6.196  | 128 | 1648     | 0.96 | ng    | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =    | 1.92% |      |
| 55) 2-Fluorobiphenyl        | 7.601  | 172 | 10786    | 1.16 | ng    | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =    | 2.32% |      |
| 80) 2,4,6-Tribromophenol    | 8.904  | 330 | 1739     | 2.07 | ng    | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =    | 2.07% |      |
| 94) Terphenyl-d14           | 11.410 | 244 | 8691     | 1.02 | ng    | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =    | 2.04% |      |

|                                |       |     |        |        |    |        |
|--------------------------------|-------|-----|--------|--------|----|--------|
| Target Compounds               |       |     |        |        |    | Qvalue |
| 8) 1,4-Dioxane                 | 2.547 | 88  | 4907m  | 2.5830 | ng |        |
| 9) Pyridine                    | 2.990 | 79  | 12363  | 2.1228 | ng | 53     |
| 10) N-Nitrosodimethylamine     | 2.916 | 74  | 6725   | 1.7531 | ng | 65     |
| 12) Benzaldehyde               | 5.368 | 77  | 5068   | 1.3822 | ng | 73     |
| 13) Aniline                    | 5.464 | 93  | 10184  | 1.2965 | ng | 92     |
| 14) Pentachloroethane          | 5.507 | 117 | 3403   | 2.1384 | ng | 77     |
| 15) bis(2-Chloroethyl)ether    | 5.523 | 93  | 10596  | 2.1794 | ng | 71     |
| 17) Phenol                     | 5.437 | 94  | 14239  | 1.7587 | ng | 78     |
| 18) 2-Chlorophenol             | 5.565 | 128 | 10365  | 1.9563 | ng | 73     |
| 19) N-Decane                   | 5.624 | 57  | 9977   | 1.5409 | ng | 88     |
| 20) 1,3-Dichlorobenzene        | 5.699 | 146 | 11667  | 1.9962 | ng | 90     |
| 22) 1,4-Dichlorobenzene        | 5.763 | 146 | 11891  | 2.0808 | ng | 98     |
| 23) 1,2-Dichlorobenzene        | 5.886 | 146 | 11236  | 2.0530 | ng | 98     |
| 24) Benzyl alcohol             | 5.859 | 108 | 6891   | 2.7402 | ng | 63     |
| 25) bis(2-chloroisopropyl)...  | 5.977 | 45  | 11229  | 1.2583 | ng | 93     |
| 26) 2-Methylphenol             | 5.950 | 108 | 9036   | 2.0392 | ng | 99     |
| 27) Acetophenone               | 6.073 | 105 | 14796  | 1.9846 | ng | 75     |
| 28) Hexachloroethane           | 6.169 | 117 | 4113   | 1.7083 | ng | 84     |
| 29) N-Nitroso-di-n-propyla...  | 6.078 | 70  | 7259   | 1.4161 | ng | 89     |
| 30) 3&4-Methylphenol           | 6.073 | 108 | 9523   | 1.7373 | ng | 96     |
| 33) Nitrobenzene               | 6.206 | 77  | 9873   | 1.3929 | ng | 83     |
| 34) Isophorone                 | 6.399 | 82  | 17430  | 1.4377 | ng | 84     |
| 35) 2-Nitrophenol              | 6.463 | 139 | 4288   | 1.5091 | ng | 81     |
| 36) 2,4-Dimethylphenol         | 6.490 | 107 | 9386   | 1.6607 | ng | 92     |
| 37) Benzoic Acid               | 6.516 | 105 | 4768   | 1.1938 | ng | 40     |
| 38) bis(2-Chloroethoxy)met...  | 6.564 | 93  | 12070  | 1.7242 | ng | 97     |
| 39) 2,4-Dichlorophenol         | 6.645 | 162 | 7427   | 1.8502 | ng | 90     |
| 40) 1,2,4-Trichlorobenzene     | 6.714 | 180 | 9398   | 1.9366 | ng | 96     |
| 41) Naphthalene                | 6.778 | 128 | 30872  | 2.1842 | ng | 99     |
| 42) 4-Chloroaniline            | 6.810 | 127 | 8415   | 1.6534 | ng | 95     |
| 43) Hexachlorobutadiene        | 6.874 | 225 | 4672   | 1.6578 | ng | 95     |
| 44) Caprolactam                | 7.045 | 113 | 2593   | 1.5308 | ng | 65     |
| 45) 4-Chloro-3-methylphenol    | 7.168 | 107 | 7595   | 1.5094 | ng | 84     |
| 46) 2-Methylnaphthalene        | 7.312 | 142 | 20637  | 1.9326 | ng | 98     |
| 47) 1-Methylnaphthalene        | 7.392 | 142 | 20337  | 1.9816 | ng | 91     |
| 48) Methylnaphthalenes (To...  | 7.312 | 142 | 41029m | 3.9160 | ng |        |
| 49) 1,1'-Biphenyl              | 7.681 | 154 | 24292  | 1.9078 | ng | 96     |
| 51) 1,2,4,5-Tetrachloroben...  | 7.441 | 216 | 9230   | 2.1726 | ng | 96     |
| 52) Hexachlorocyclopentadiene  | 7.441 | 237 | 2871   | 2.3093 | ng | 96     |
| 53) 2,4,6-Trichlorophenol      | 7.526 | 196 | 5664   | 1.9773 | ng | 97     |
| 54) 2,4,5-Trichlorophenol      | 7.553 | 196 | 5112   | 1.6697 | ng | 98     |
| 56) 2-Chloronaphthalene        | 7.702 | 162 | 18561  | 2.0590 | ng | 90     |
| 57) 1,4-Dimethylnaphthalene    | 7.980 | 156 | 17040  | 2.5563 | ng | 85     |
| 58) Dimethylnaphthalenes (...) | 7.980 | 156 | 17040  | 2.5563 | ng | 85     |
| 59) Diphenyl Ether             | 7.766 | 170 | 13961  | 2.2114 | ng | 81     |
| 60) 2-Nitroaniline             | 7.772 | 65  | 4948   | 1.1634 | ng | 71     |
| 61) Coumarin                   | 7.953 | 146 | 7458   | 2.1279 | ng | 91     |
| 62) Acenaphthylene             | 8.055 | 152 | 27348  | 2.1511 | ng | 99     |
| 63) Dimethylphthalate          | 7.921 | 163 | 20185  | 1.9030 | ng | 96     |
| 64) 2,6-Dinitrotoluene         | 7.975 | 165 | 3727   | 1.5807 | ng | 65     |
| 65) Acenaphthene               | 8.204 | 153 | 18845  | 2.0908 | ng | 97     |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File : 7M95175.D Sam Mult : 1 Vial# : 8 Qt On : 10/08/18 15:45  
 Acq On : 10/ 8/18 15:27 Misc : A,BNA Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 8.119  | 138  | 3828     | 1.6751 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.359  | 168  | 26456    | 2.1666 | ng    | 86       |
| 69) 2,4-Dinitrotoluene         | 8.327  | 165  | 3757     | 1.1455 | ng    | 62       |
| 70) 4-Nitrophenol              | 8.242  | 65   | 2078     | 0.8044 | ng    | 99       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.466  | 232  | 4265     | 1.6135 | ng    | 86       |
| 72) Fluorene                   | 8.680  | 166  | 20910    | 1.9664 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.675  | 204  | 9338     | 1.8217 | ng    | 82       |
| 74) Diethylphthalate           | 8.552  | 149  | 19096    | 1.8074 | ng    | 95       |
| 75) 4-Nitroaniline             | 8.669  | 138  | 3976     | 1.4434 | ng    | 80       |
| 76) Atrazine                   | 9.300  | 200  | 5195     | 1.6632 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D. d |       |          |
| 79) n-Nitrosodiphenylamine     | 8.776  | 169  | 16706    | 1.8394 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.824  | 77   | 20705    | 1.6592 | ng    | 81       |
| 82) 4-Bromophenyl-phenylether  | 9.150  | 248  | 5662     | 1.9350 | ng    | 80       |
| 83) Hexachlorobenzene          | 9.219  | 284  | 5574     | 1.9585 | ng    | 71       |
| 84) N-Octadecane               | 9.503  | 57   | 11270    | 1.3539 | ng    | 67       |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D. d |       |          |
| 86) Phenanthrene               | 9.642  | 178  | 31508    | 2.0079 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178  | 29620    | 1.8307 | ng    | 97       |
| 88) Carbazole                  | 9.861  | 167  | 27209    | 1.8607 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.256 | 149  | 28117    | 1.4848 | ng    | 97       |
| 90) Fluoranthene               | 10.961 | 202  | 30466    | 1.7527 | ng    | 97       |
| 92) Pyrene                     | 11.223 | 202  | 30783    | 1.8692 | ng    | 89       |
| 93) Benzidine                  | 11.111 | 184  | 3798     | 0.6284 | ng    | 88       |
| 95) 4,4'-DDE                   | 11.351 | 246  | 6356     | 2.0498 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.746 | 235  | 9912     | 1.8779 | ng    | 95       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 10812    | 1.3826 | ng    | 68       |
| 98) 4,4'-DDT                   | 12.104 | 235  | 3868     | 0.8563 | ng    | 95       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 5935     | 1.2571 | ng    | 99       |
| 100) Benzo[a]anthracene        | 12.633 | 228  | 30129    | 1.9888 | ng    | 99       |
| 101) Chrysene                  | 12.676 | 228  | 26321    | 1.8457 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 14479    | 1.4036 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.456 | 149  | 20222    | 1.1033 | ng    | 97       |
| 105) Benzo[b]fluoranthene      | 13.846 | 252  | 23634    | 1.6492 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.878 | 252  | 23280    | 1.6790 | ng    | 93       |
| 107) Benzo[a]pyrene            | 14.193 | 252  | 21859    | 1.6081 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.507 | 276  | 23007    | 1.7049 | ng    | 93       |
| 109) Dibenzo[a,h]anthracene    | 15.529 | 278  | 19231    | 2.1975 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.855 | 276  | 20141    | 1.7916 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

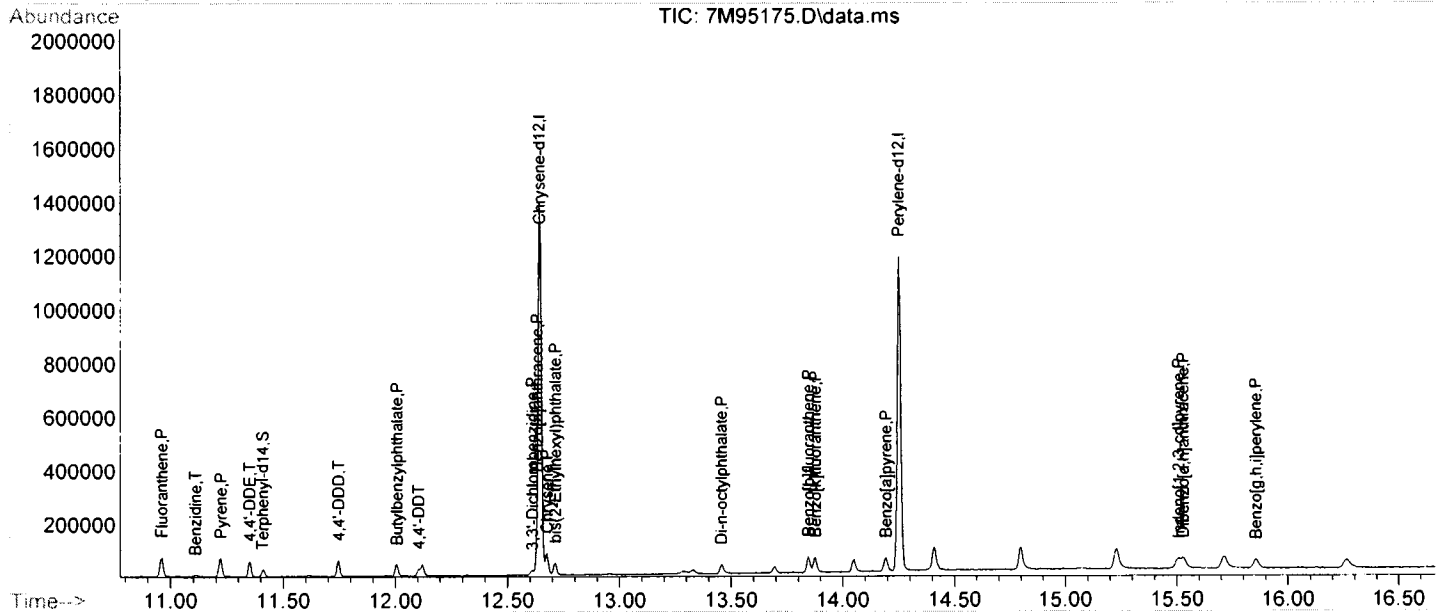
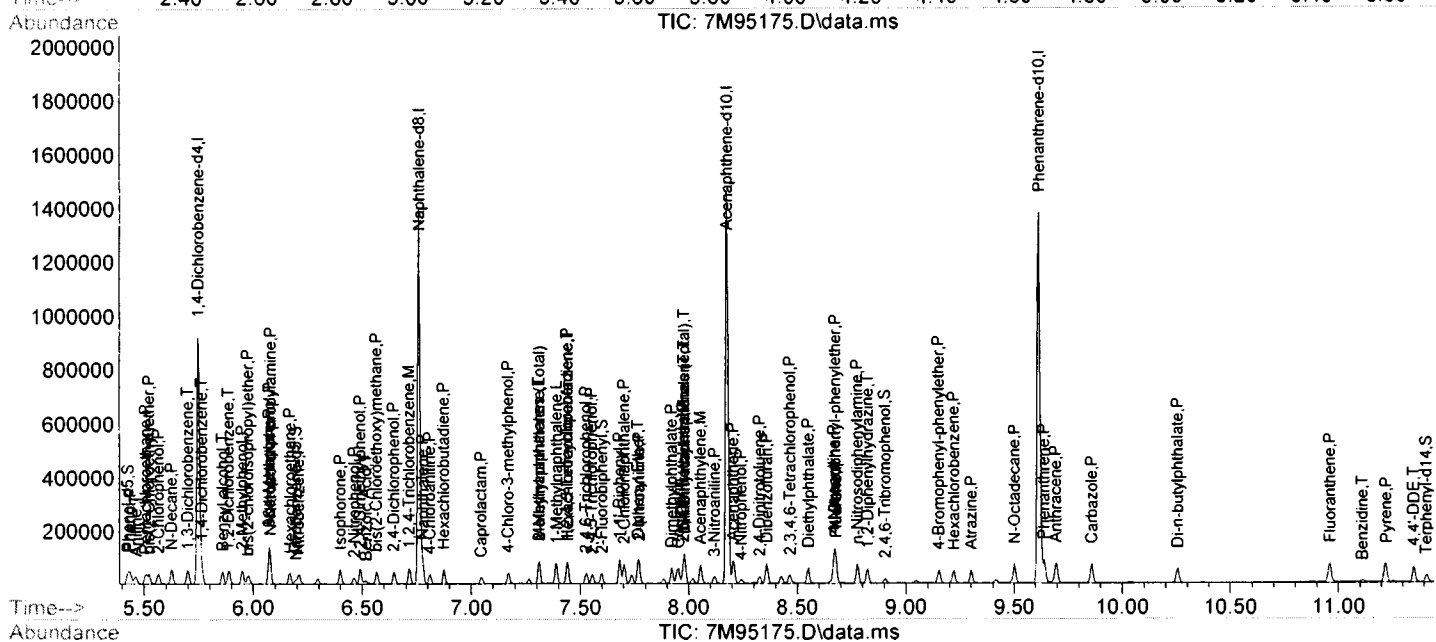
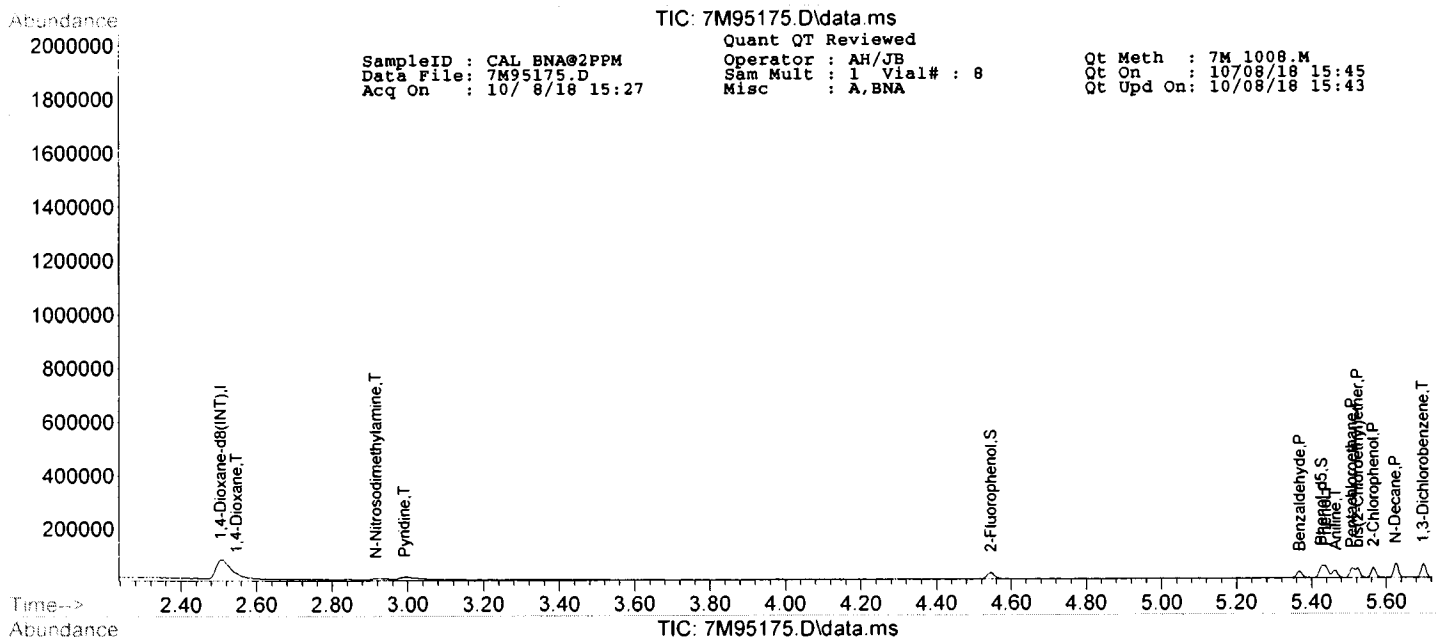
TIC: 7M95175.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@2PPM  
Data File: 7M95175.D  
Acq On : 10/ 8/18 15:27

Operator : AH/JB  
Sam Mult : 1 Vial# : 8  
Misc : A,BNA

```
Qt Meth   : 7M 1008.M
Qt On      : 10708/18 15:45
Qt Upd On : 10/08/18 15:43
```





SampleID : CAL\_BNA@10PPM  
Data File: 7M95169.D  
Acq On : 10/ 8/18 13:05

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 13:23  
Qt Upd On: 10/08/18 12:13

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|---------|--------|----------|
| -----                          |        |      |          |         |        |          |
| Internal Standards             |        |      |          |         |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 80619    | 40.00   | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 137139   | 40.00   | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.773  | 136  | 504127   | 40.00   | ng     | -0.02    |
| 50) Acenaphthene-d10           | 8.204  | 164  | 290829   | 40.00   | ng     | -0.03    |
| 77) Phenanthrene-d10           | 9.642  | 188  | 495869   | 40.00   | ng     | -0.02    |
| 91) Chrysene-d12               | 12.655 | 240  | 480420   | 40.00   | ng     | -0.02    |
| 103) Perylene-d12              | 14.279 | 264  | 431710   | 40.00   | ng     | -0.05    |
| System Monitoring Compounds    |        |      |          |         |        |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 37178    | 8.02    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 8.02%  |          |
| 16) Phenol-d5                  | 5.426  | 99   | 53308    | 7.67    | ng     | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery | =       | 7.67%  |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 6742     | 4.05    | ng     | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.10%  |          |
| 55) 2-Fluorobiphenyl           | 7.627  | 172  | 39318    | 4.34    | ng     | -0.02    |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.68%  |          |
| 80) 2,4,6-Tribromophenol       | 8.931  | 330  | 8670     | 10.40   | ng     | -0.03    |
| Spiked Amount 100.000          |        |      | Recovery | =       | 10.40% |          |
| 94) Terphenyl-d14              | 11.420 | 244  | 34071    | 4.18    | ng     | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery | =       | 8.36%  |          |
| Target Compounds               |        |      |          |         |        |          |
|                                |        |      |          |         |        | Qvalue   |
| 8) 1,4-Dioxane                 | 2.547  | 88   | 18536    | 9.9931  | ng     | 81       |
| 9) Pyridine                    | 2.980  | 79   | 43473    | 7.6484  | ng     | 61       |
| 10) N-Nitrosodimethylamine     | 2.910  | 74   | 26041    | 6.9889  | ng     | 68       |
| 12) Benzaldehyde               | 5.368  | 77   | 25638    | 7.2430  | ng     | 72       |
| 13) Aniline                    | 5.464  | 93   | 50534    | 6.6234  | ng     | 81       |
| 14) Pentachloroethane          | 5.507  | 117  | 12838    | 8.2578  | ng     | 85       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 39648    | 8.3341  | ng     | 75       |
| 17) Phenol                     | 5.437  | 94   | 53746    | 6.8343  | ng     | 78       |
| 18) 2-Chlorophenol             | 5.565  | 128  | 38899    | 7.5586  | ng     | 75       |
| 19) N-Decane                   | 5.629  | 57   | 35839    | 5.6939  | ng     | 88       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 42634    | 7.5099  | ng     | 98       |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 42824    | 7.7045  | ng     | 98       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 40122    | 7.5370  | ng     | 99       |
| 24) Benzyl alcohol             | 5.859  | 108  | 25434    | 10.2386 | ng     | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 40478    | 4.6634  | ng     | 95       |
| 26) 2-Methylphenol             | 5.950  | 108  | 35089    | 8.0683  | ng     | 94       |
| 27) Acetophenone               | 6.078  | 105  | 54578    | 7.5263  | ng     | 69       |
| 28) Hexachloroethane           | 6.169  | 117  | 15414    | 6.5821  | ng     | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 26196    | 5.2788  | ng     | 85       |
| 30) 3&4-Methylphenol           | 6.078  | 108  | 36629    | 6.8702  | ng     | 97       |
| 33) Nitrobenzene               | 6.212  | 77   | 35564    | 5.1947  | ng     | 79       |
| 34) Isophorone                 | 6.404  | 82   | 68441    | 5.8449  | ng     | 87       |
| 35) 2-Nitrophenol              | 6.468  | 139  | 17658    | 6.4341  | ng     | 81       |
| 36) 2,4-Dimethylphenol         | 6.500  | 107  | 35804    | 6.5482  | ng     | 83       |
| 37) Benzoic Acid               | 6.532  | 105  | 24698    | 6.3568  | ng     | 41       |
| 38) bis(2-Chloroethoxy)met...  | 6.575  | 93   | 46462    | 6.8719  | ng     | 97       |
| 39) 2,4-Dichlorophenol         | 6.655  | 162  | 29269    | 7.5056  | ng     | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.730  | 180  | 33719    | 7.1941  | ng     | 96       |
| 41) Naphthalene                | 6.789  | 128  | 113126   | 8.2358  | ng     | 99       |
| 42) 4-Chloroaniline            | 6.826  | 127  | 40516m   | 8.2424  | ng     |          |
| 43) Hexachlorobutadiene        | 6.890  | 225  | 17062    | 6.2685  | ng     | 95       |
| 44) Caprolactam                | 7.072  | 113  | 12143m   | 7.4223  | ng     |          |
| 45) 4-Chloro-3-methylphenol    | 7.195  | 107  | 29319    | 6.0328  | ng     | 70       |
| 46) 2-Methylnaphthalene        | 7.334  | 142  | 75262    | 7.2971  | ng     | 98       |
| 47) 1-Methylnaphthalene        | 7.414  | 142  | 73580    | 7.4232  | ng     | 91       |
| 48) Methylnaphthalenes (To...  | 7.334  | 142  | 148958m  | 14.7199 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.708  | 154  | 90256    | 7.3390  | ng     | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.467  | 216  | 33284    | 8.0578  | ng     | 95       |
| 52) Hexachlorocyclopentadiene  | 7.462  | 237  | 13211    | 10.5462 | ng     | 92       |
| 53) 2,4,6-Trichlorophenol      | 7.553  | 196  | 19974    | 7.1716  | ng     | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.579  | 196  | 21112    | 7.0921  | ng     | 99       |
| 56) 2-Chloronaphthalene        | 7.729  | 162  | 70098    | 7.9974  | ng     | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.012  | 156  | 61589    | 9.5026  | ng     | 84       |
| 58) Dimethylnaphthalenes (...) | 8.012  | 156  | 61589    | 9.5026  | ng     | 84       |
| 59) Diphenyl Ether             | 7.798  | 170  | 50925    | 8.2960  | ng     | 76       |
| 60) 2-Nitroaniline             | 7.798  | 65   | 20381    | 4.9285  | ng     | 71       |
| 61) Coumarin                   | 7.980  | 146  | 29233    | 8.5781  | ng     | 84       |
| 62) Acenaphthylene             | 8.082  | 152  | 101017   | 8.1718  | ng     | 99       |
| 63) Dimethylphthalate          | 7.953  | 163  | 73965    | 7.1718  | ng     | 98       |
| 64) 2,6-Dinitrotoluene         | 8.001  | 165  | 15882    | 6.9276  | ng     | 65       |
| 65) Acenaphthene               | 8.236  | 153  | 69587    | 7.9404  | ng     | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95169.D Sam Mult : 1 Vial# : 2 Qt On : 10/08/18 13:23  
 Acq On : 10/ 8/18 13:05 Misc : A,BNA Qt Upd On: 10/08/18 12:13

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 8.146  | 138  | 17359    | 7.8126 | ng    | 80       |
| 67) 2,4-Dinitrophenol          | 8.236  | 184  | 3419     | 2.8236 | ng    | 43       |
| 68) Dibenzofuran               | 8.386  | 168  | 95780    | 8.0528 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.354  | 165  | 18202    | 5.7078 | ng    | 64       |
| 70) 4-Nitrophenol              | 8.274  | 65   | 10981    | 4.3716 | ng    | 93       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.493  | 232  | 16885    | 6.5696 | ng    | 84       |
| 72) Fluorene                   | 8.707  | 166  | 79042    | 7.6448 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.701  | 204  | 35941    | 7.2110 | ng    | 81       |
| 74) Diethylphthalate           | 8.578  | 149  | 75473    | 7.3466 | ng    | 98       |
| 75) 4-Nitroaniline             | 8.696  | 138  | 19336    | 7.2196 | ng    | 73       |
| 76) Atrazine                   | 9.326  | 200  | 21578m   | 7.1051 | ng    |          |
| 78) 4,6-Dinitro-2-methylph...  | 8.733  | 198  | 4959     | 3.3279 | ng    | 57       |
| 79) n-Nitrosodiphenylamine     | 8.803  | 169  | 65757    | 7.5451 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.851  | 77   | 76130    | 6.3579 | ng    | 79       |
| 82) 4-Bromophenyl-phenylether  | 9.177  | 248  | 19989    | 7.1190 | ng    | 86       |
| 83) Hexachlorobenzene          | 9.246  | 284  | 20829    | 7.6269 | ng    | 64       |
| 84) N-Octadecane               | 9.524  | 57   | 42610    | 5.3346 | ng    | 72       |
| 85) Pentachlorophenol          | 9.433  | 266  | 10077    | 6.7058 | ng    | 93       |
| 86) Phenanthrene               | 9.663  | 178  | 115332m  | 7.6595 | ng    |          |
| 87) Anthracene                 | 9.716  | 178  | 117735   | 7.5834 | ng    | 99       |
| 88) Carbazole                  | 9.877  | 167  | 106611   | 7.5977 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.272 | 149  | 121483   | 6.6856 | ng    | 97       |
| 90) Fluoranthene               | 10.972 | 202  | 116270   | 6.9709 | ng    | 95       |
| 92) Pyrene                     | 11.233 | 202  | 119006   | 7.5219 | ng    | 90       |
| 93) Benzidine                  | 11.121 | 184  | 37967    | 6.5816 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.362 | 246  | 23434    | 7.8663 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 39456    | 7.7808 | ng    | 94       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 52231    | 6.9523 | ng    | 75       |
| 98) 4,4'-DDT                   | 12.110 | 235  | 23383    | 5.3879 | ng    | 93       |
| 99) 3,3'-Dichlorobenzidine     | 12.617 | 252  | 33611    | 7.4655 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.639 | 228  | 112618   | 7.7377 | ng    | 100      |
| 101) Chrysene                  | 12.681 | 228  | 104171   | 7.6034 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.719 | 149  | 69951    | 7.0584 | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.472 | 149  | 111447   | 6.1261 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.867 | 252  | 100877   | 7.0925 | ng    | 96       |
| 106) Benzo[k]fluoranthene      | 13.899 | 252  | 95379    | 6.9309 | ng    | 93       |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 93552    | 6.9341 | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.534 | 276  | 98792    | 7.3761 | ng    | 85       |
| 109) Dibenzo[a,h]anthracene    | 15.561 | 278  | 82751    | 9.3371 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.887 | 276  | 84185    | 7.5448 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

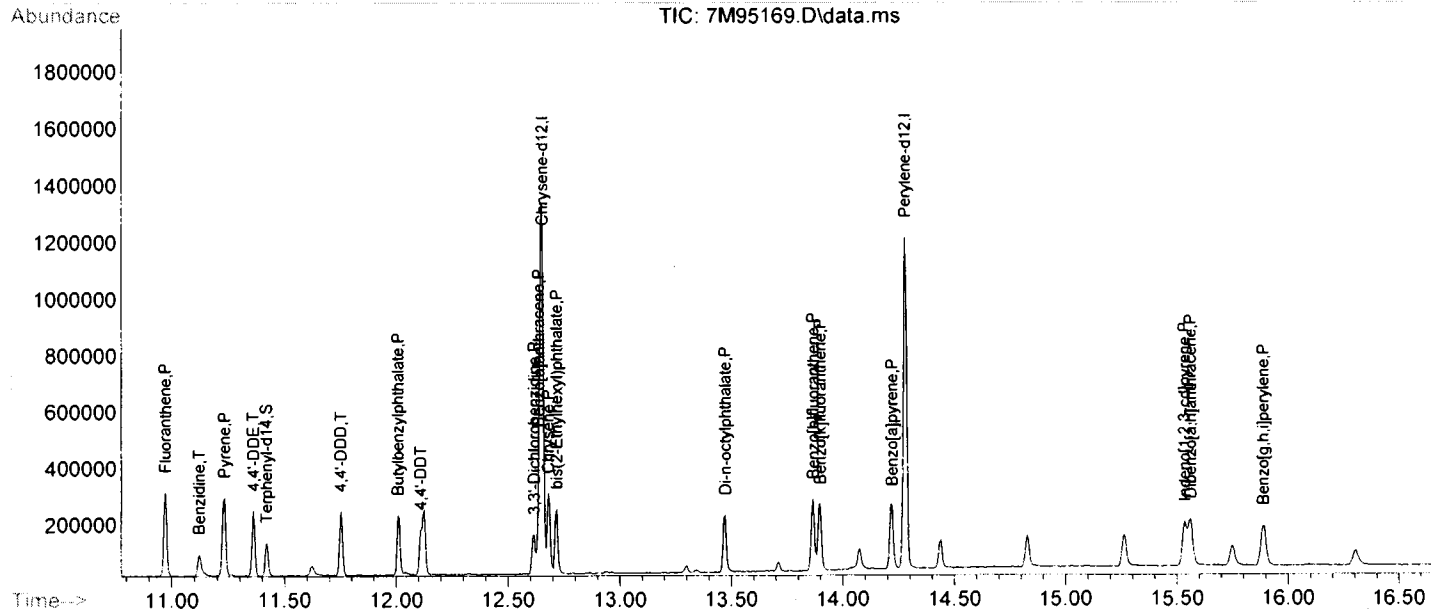
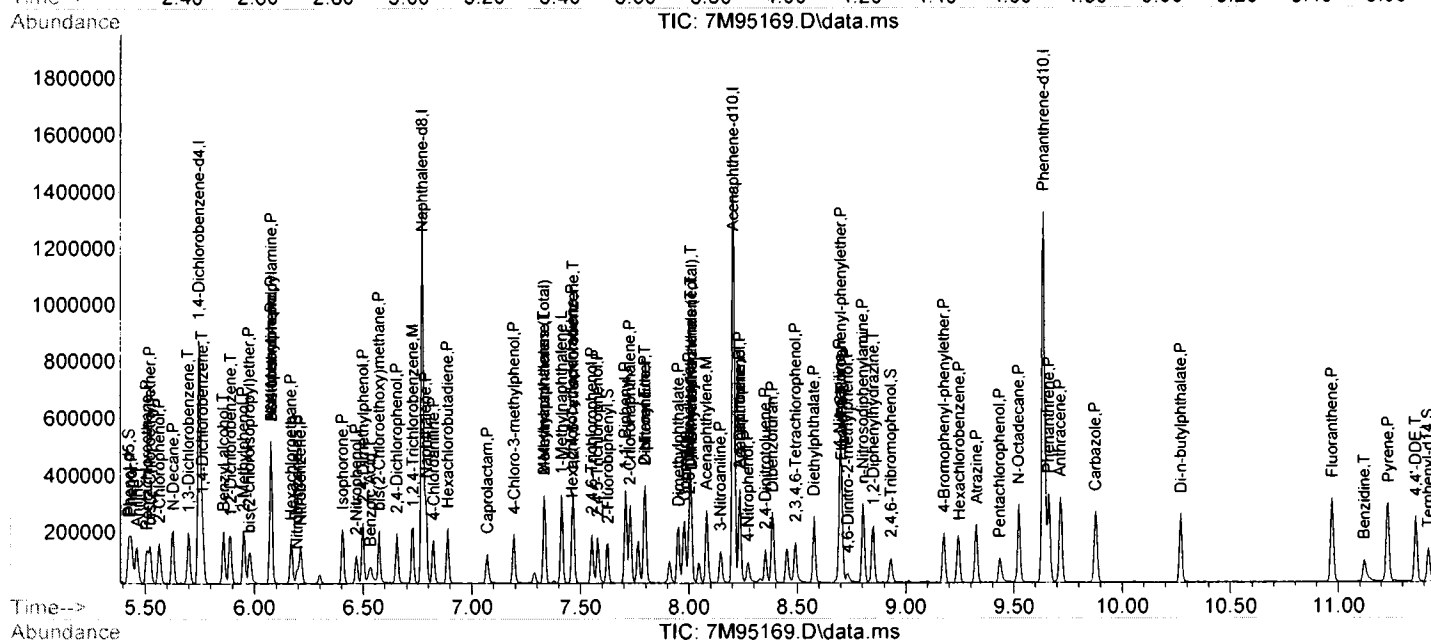
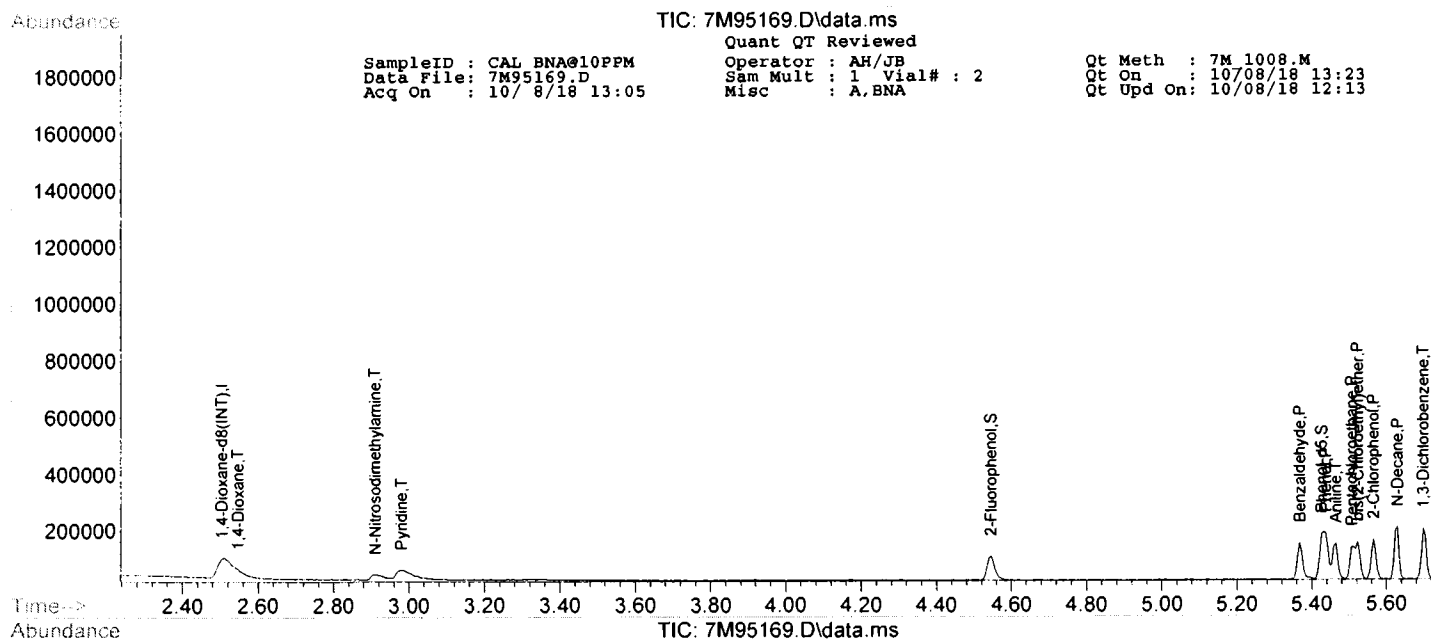
TIC: 7M95169.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@10PPM  
 Data File: 7M95169.D  
 Acq On : 10/ 8/18 13:05

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A.BNA

Qt Meth : 7M 1008.M  
 Qt On : 10/08/18 13:23  
 Qt Upd On: 10/08/18 12:13



SampleID : CAL BNA@20PPM  
Data File: 7M95174.D  
Acq On : 10/ 8/18 15:03

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:37  
Qt Upd On: 10/07/18 16:40

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 80893      | 40.00   | ng    | 0.05     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 137180     | 40.00   | ng    | 0.04     |
| 31) Naphthalene-d8             | 6.762  | 136  | 506716     | 40.00   | ng    | 0.04     |
| 50) Acenaphthene-d10           | 8.183  | 164  | 288424     | 40.00   | ng    | 0.05     |
| 77) Phenanthrene-d10           | 9.620  | 188  | 491343     | 40.00   | ng    | 0.04     |
| 91) Chrysene-d12               | 12.649 | 240  | 489782     | 40.00   | ng    | 0.03     |
| 103) Perylene-d12              | 14.257 | 264  | 422072     | 40.00   | ng    | 0.02     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.545  | 112  | 84937      | 18.26   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 18.26%  |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 123938m    | 17.77   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 17.77%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 15014      | 8.97    | ng    | 0.04     |
| Spiked Amount 50.000           |        |      | Recovery = | 17.94%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.601  | 172  | 89825      | 10.00   | ng    | 0.05     |
| Spiked Amount 50.000           |        |      | Recovery = | 20.00%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.910  | 330  | 21215      | 24.38   | ng    | 0.05     |
| Spiked Amount 100.000          |        |      | Recovery = | 24.38%  |       |          |
| 94) Terphenyl-d14              | 11.415 | 244  | 78776      | 9.49    | ng    | 0.04     |
| Spiked Amount 50.000           |        |      | Recovery = | 18.98%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 38556      | 20.5639 | ng    | 91       |
| 9) Pyridine                    | 2.975  | 79   | 101662     | 17.6719 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.910  | 74   | 56878      | 15.2132 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 58756m     | 16.7083 | ng    |          |
| 13) Aniline                    | 5.464  | 93   | 126002m    | 16.4590 | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 28459      | 18.0778 | ng    | 82       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 89241      | 18.4724 | ng    | 74       |
| 17) Phenol                     | 5.437  | 94   | 122191     | 15.4850 | ng    | 78       |
| 18) 2-Chlorophenol             | 5.566  | 128  | 89249      | 17.2836 | ng    | 76       |
| 19) N-Decane                   | 5.630  | 57   | 78781      | 12.4570 | ng    | 83       |
| 20) 1,3-Dichlorobenzene        | 5.699  | 146  | 96956m     | 17.0208 | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.763  | 146  | 97638      | 17.5609 | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 93472      | 17.5537 | ng    | 98       |
| 24) Benzyl alcohol             | 5.859  | 108  | 58533      | 22.9583 | ng    | 68       |
| 25) bis(2-chloroisopropyl)...  | 5.977  | 45   | 92781      | 10.6860 | ng    | 95       |
| 26) 2-Methylphenol             | 5.950  | 108  | 80695      | 18.2715 | ng    | 96       |
| 27) Acetophenone               | 6.073  | 105  | 123806     | 17.0678 | ng    | 72       |
| 28) Hexachloroethane           | 6.169  | 117  | 35981      | 15.3601 | ng    | 87       |
| 29) N-Nitroso-di-n-propyla...  | 6.078  | 70   | 59572      | 12.1023 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 85694      | 16.0680 | ng    | 100      |
| 33) Nitrobenzene               | 6.212  | 77   | 83650      | 12.1560 | ng    | 74       |
| 34) Isophorone                 | 6.399  | 82   | 156413     | 13.2894 | ng    | 88       |
| 35) 2-Nitrophenol              | 6.463  | 139  | 43048      | 15.6054 | ng    | 78       |
| 36) 2,4-Dimethylphenol         | 6.490  | 107  | 82928      | 15.0461 | ng    | 87       |
| 37) Benzoic Acid               | 6.543  | 105  | 73656      | 18.5468 | ng    | 38       |
| 38) bis(2-Chloroethoxy)met...  | 6.570  | 93   | 106315     | 15.6441 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.650  | 162  | 70127      | 17.7063 | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.719  | 180  | 77422      | 16.4340 | ng    | 97       |
| 41) Naphthalene                | 6.778  | 128  | 267911     | 19.1913 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.810  | 127  | 104762m    | 21.2033 | ng    |          |
| 43) Hexachlorobutadiene        | 6.880  | 225  | 39600      | 14.4746 | ng    | 98       |
| 44) Caprolactam                | 7.061  | 113  | 28867      | 17.5545 | ng    | 59       |
| 45) 4-Chloro-3-methylphenol    | 7.174  | 107  | 69045      | 14.1343 | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.312  | 142  | 175587     | 16.9373 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.393  | 142  | 170850     | 17.1484 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.312  | 142  | 346353m    | 34.0515 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.686  | 154  | 205840     | 16.6519 | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.446  | 216  | 76224      | 18.6071 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.441  | 237  | 32164      | 24.4464 | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.531  | 196  | 48505      | 17.5608 | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.558  | 196  | 48335      | 16.3725 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.708  | 162  | 158543     | 18.2388 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.986  | 156  | 139863     | 21.7595 | ng    | 84       |
| 58) Dimethylnaphthalenes (...) | 7.986  | 156  | 139863     | 21.7595 | ng    | 84       |
| 59) Diphenyl Ether             | 7.772  | 170  | 117170     | 19.2468 | ng    | 75       |
| 60) 2-Nitroaniline             | 7.777  | 65   | 48084      | 11.7246 | ng    | 44       |
| 61) Coumarin                   | 7.959  | 146  | 65066      | 19.2520 | ng    | 84       |
| 62) Acenaphthylene             | 8.060  | 152  | 232982     | 19.0042 | ng    | 99       |
| 63) Dimethylphthalate          | 7.927  | 163  | 173089     | 16.9230 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 38373      | 16.8776 | ng    | 63       |
| 65) Acenaphthene               | 8.210  | 153  | 161689     | 18.6037 | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95174.D Sam Mult : 1 Vial# : 7 Qt On : 10/08/18 15:37  
 Acq On : 10/ 8/18 15:03 Misc : A,BNA Qt Upd On: 10/07/18 16:40

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.124  | 138  | 44421    | 20.1589 | ng    | 68       |
| 67) 2,4-Dinitrophenol          | 8.215  | 184  | 9658     | 7.9821  | ng    | 68       |
| 68) Dibenzofuran               | 8.360  | 168  | 222147   | 18.7714 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.327  | 165  | 47006    | 14.8632 | ng    | 67       |
| 70) 4-Nitrophenol              | 8.247  | 65   | 25930    | 10.4090 | ng    | 78       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.466  | 232  | 41795    | 16.3972 | ng    | 85       |
| 72) Fluorene                   | 8.680  | 166  | 180941   | 17.6462 | ng    | 97       |
| 73) 4-Chlorophenyl-phenyle...  | 8.675  | 204  | 82098    | 16.6090 | ng    | 83       |
| 74) Diethylphthalate           | 8.552  | 149  | 171367   | 16.8201 | ng    | 98       |
| 75) 4-Nitroaniline             | 8.675  | 138  | 47882    | 18.0270 | ng    | 71       |
| 76) Atrazine                   | 9.305  | 200  | 51448    | 17.0819 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.707  | 198  | 14835    | 9.9196  | ng    | 59       |
| 79) n-Nitrosodiphenylamine     | 8.782  | 169  | 153095   | 17.7283 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.824  | 77   | 178529   | 15.0470 | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.155  | 248  | 46861    | 16.8431 | ng    | 79       |
| 83) Hexachlorobenzene          | 9.220  | 284  | 48117    | 17.7812 | ng    | 73       |
| 84) N-Octadecane               | 9.503  | 57   | 96393    | 12.1791 | ng    | 68       |
| 85) Pentachlorophenol          | 9.412  | 266  | 25384    | 16.7330 | ng    | 99       |
| 86) Phenanthrene               | 9.647  | 178  | 264241   | 17.7106 | ng    | 100      |
| 87) Anthracene                 | 9.700  | 178  | 271313   | 17.6365 | ng    | 100      |
| 88) Carbazole                  | 9.861  | 167  | 246695   | 17.7428 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.256 | 149  | 283562   | 15.7490 | ng    | 97       |
| 90) Fluoranthene               | 10.961 | 202  | 274020   | 16.5800 | ng    | 95       |
| 92) Pyrene                     | 11.223 | 202  | 280151   | 17.3687 | ng    | 89       |
| 93) Benzidine                  | 11.111 | 184  | 104954   | 18.0744 | ng    | 90       |
| 95) 4,4'-DDE                   | 11.356 | 246  | 56107    | 18.4738 | ng    | 95       |
| 96) 4,4'-DDD                   | 11.746 | 235  | 96304    | 18.6283 | ng    | 95       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 119288   | 15.5745 | ng    | 67       |
| 98) 4,4'-DDT                   | 12.104 | 235  | 61144    | 13.8195 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 83805    | 18.5046 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.639 | 228  | 261261   | 17.6075 | ng    | 100      |
| 101) Chrysene                  | 12.676 | 228  | 245257   | 17.5590 | ng    | 100      |
| 102) bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 158865   | 15.7239 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.456 | 149  | 255448   | 14.3623 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.851 | 252  | 225459m  | 16.2136 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.878 | 252  | 236059   | 17.5453 | ng    | 96       |
| 107) Benzo[a]pyrene            | 14.193 | 252  | 215981   | 16.3742 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.507 | 276  | 230747   | 17.6216 | ng    | 87       |
| 109) Dibenzo[a,h]anthracene    | 15.534 | 278  | 191936   | 21.4283 | ng    | 91       |
| 110) Benzo[g,h,i]perylene      | 15.860 | 276  | 194600   | 17.8387 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

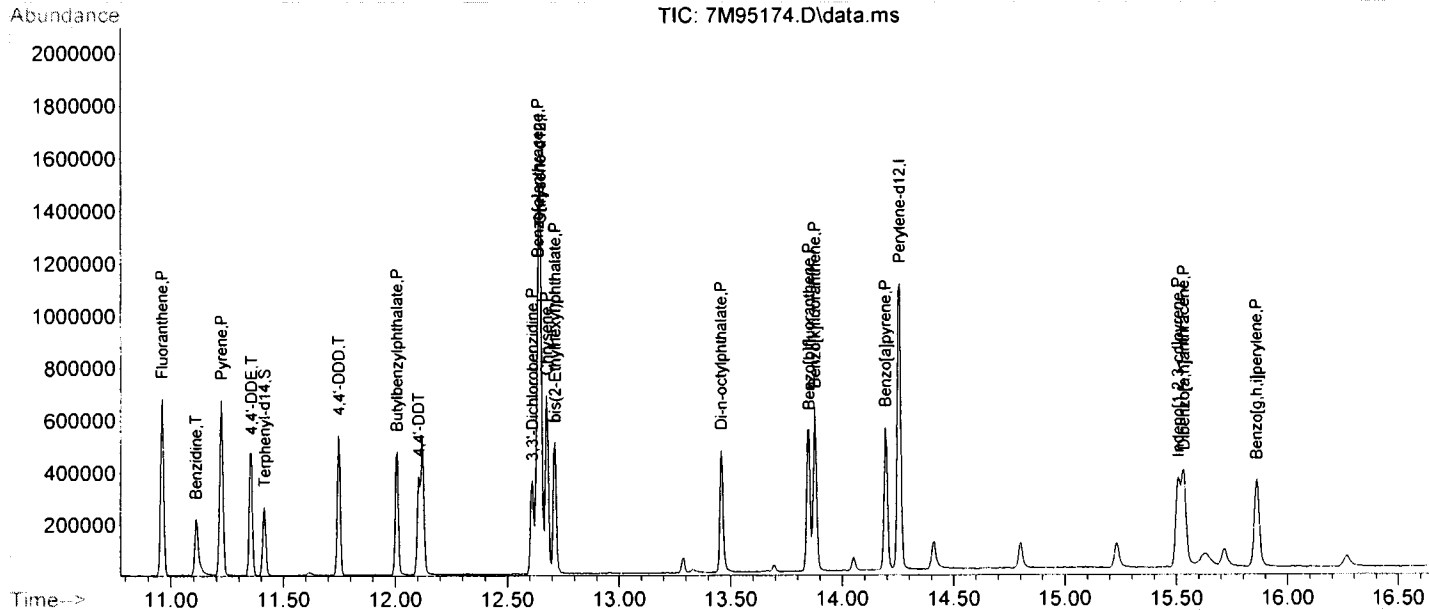
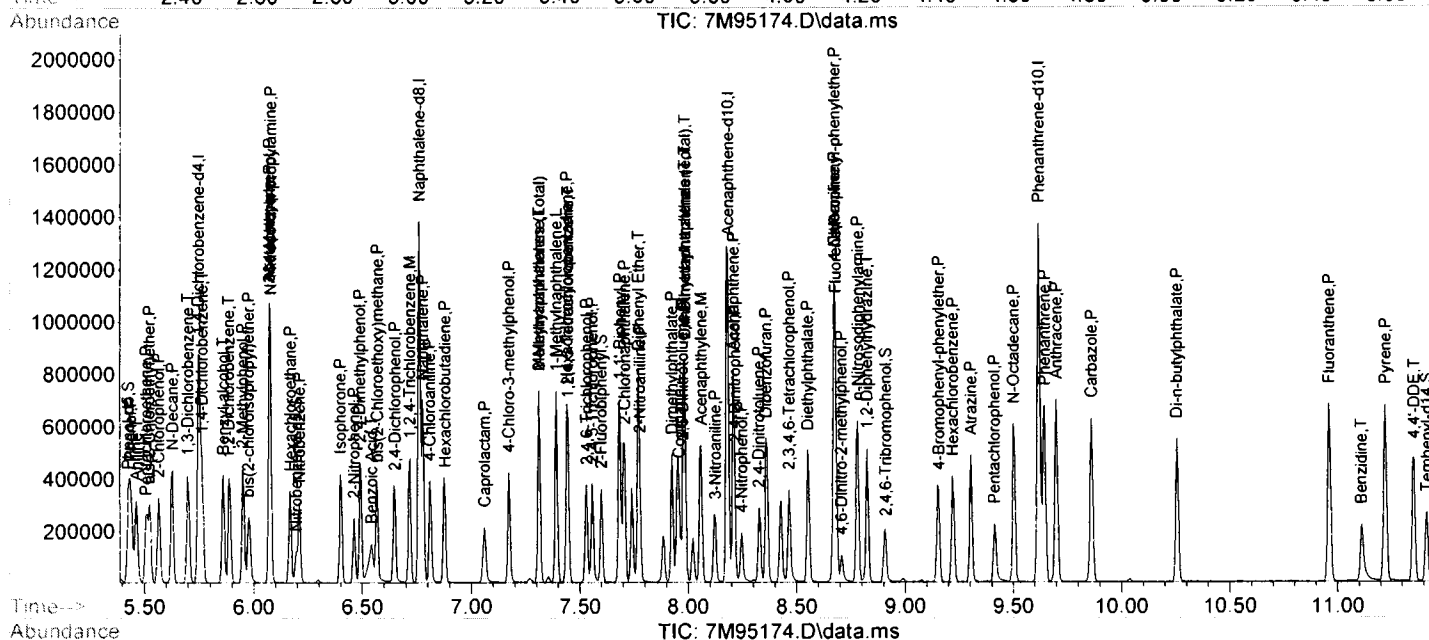
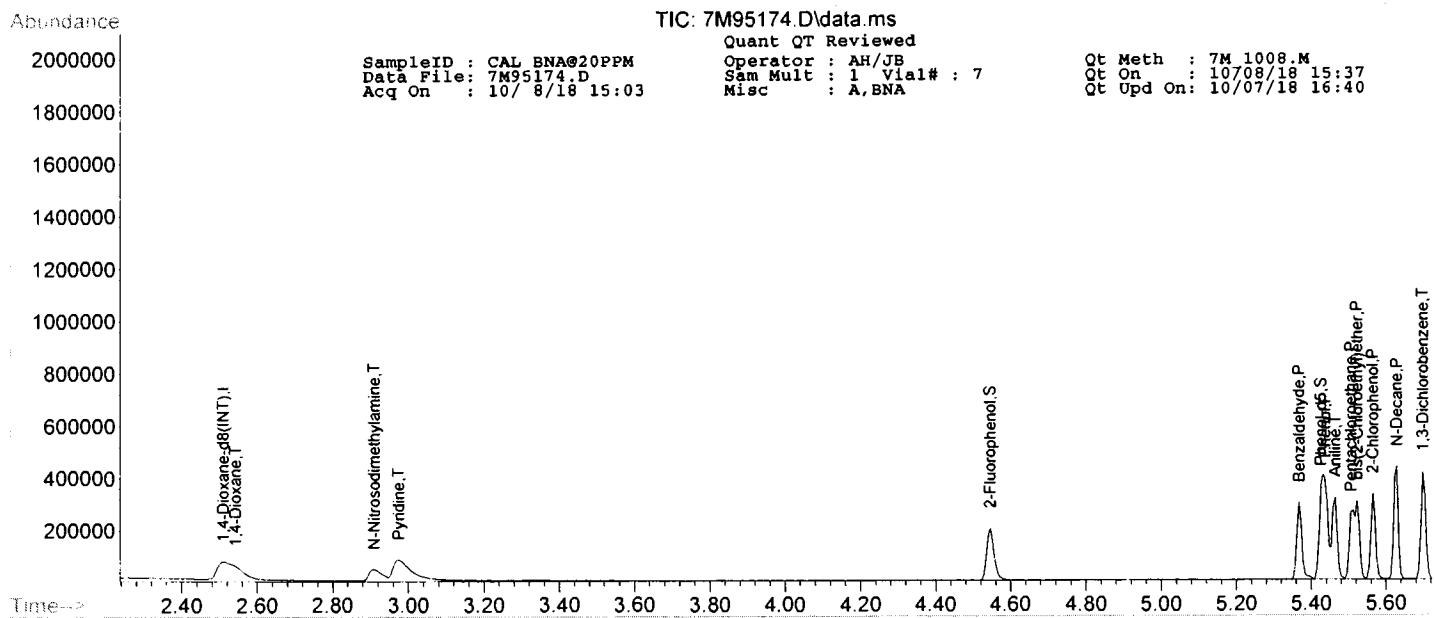
TIC: 7M95174.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@20PPM  
Data File: 7M95174.D  
Acq On : 10/ 8/18 15:03

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A, BNA

```
Qt Meth   : 7M 1008.M
Qt On      : 10/08/18 15:37
Qt Upd On : 10/07/18 16:40
```



SampleID : CAL\_BNA@80PPM  
Data File: 7M95173.D  
Acq On : 10/ 8/18 14:40

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:44  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8(INT)     | 2.510  | 96   | 80331    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.753  | 152  | 133398   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.768  | 136  | 496038   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.183  | 164  | 282685   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.626  | 188  | 487063   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.655 | 240  | 479929   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.268 | 264  | 425562   | 40.00 | ng    | 0.01     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 11) 2-Fluorophenol          | 4.545  | 112 | 349270   | 75.61 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 75.61% |      |
| 16) Phenol-d5               | 5.432  | 99  | 498756   | 71.99 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 71.99% |      |
| 32) Nitrobenzene-d5         | 6.196  | 128 | 64907    | 39.61 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 79.22% |      |
| 55) 2-Fluorobiphenyl        | 7.606  | 172 | 362702   | 41.21 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 82.42% |      |
| 80) 2,4,6-Tribromophenol    | 8.915  | 330 | 95582    | 89.54 | ng     | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =     | 89.54% |      |
| 94) Terphenyl-d14           | 11.415 | 244 | 340013   | 41.78 | ng     | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =     | 83.56% |      |

|                                |       |     |          |          |    |        |
|--------------------------------|-------|-----|----------|----------|----|--------|
| Target Compounds               |       |     |          |          |    | Qvalue |
| 8) 1,4-Dioxane                 | 2.542 | 88  | 151135   | 78.0577  | ng | 90     |
| 9) Pyridine                    | 2.969 | 79  | 409329   | 68.6502  | ng | 60     |
| 10) N-Nitrosodimethylamine     | 2.905 | 74  | 236099   | 63.5915  | ng | 67     |
| 12) Benzaldehyde               | 5.368 | 77  | 172619   | 51.3057  | ng | 74     |
| 13) Aniline                    | 5.464 | 93  | 492390m  | 64.7683  | ng |        |
| 14) Pentachloroethane          | 5.512 | 117 | 117614   | 71.6760  | ng | 83     |
| 15) bis(2-Chloroethyl)ether    | 5.528 | 93  | 349977   | 68.8720  | ng | 72     |
| 17) Phenol                     | 5.443 | 94  | 491348   | 62.7031  | ng | 77     |
| 18) 2-Chlorophenol             | 5.571 | 128 | 365683   | 71.3122  | ng | 74     |
| 19) N-Decane                   | 5.630 | 57  | 311566   | 49.2499  | ng | 83     |
| 20) 1,3-Dichlorobenzene        | 5.699 | 146 | 388240   | 68.6331  | ng | 96     |
| 22) 1,4-Dichlorobenzene        | 5.763 | 146 | 395277   | 73.1091  | ng | 96     |
| 23) 1,2-Dichlorobenzene        | 5.891 | 146 | 372195   | 71.8787  | ng | 98     |
| 24) Benzyl alcohol             | 5.859 | 108 | 239842   | 85.9471  | ng | 68     |
| 25) bis(2-chloroisopropyl)...  | 5.982 | 45  | 360622   | 42.7121  | ng | 94     |
| 26) 2-Methylphenol             | 5.956 | 108 | 324857   | 70.2779  | ng | 97     |
| 27) Acetophenone               | 6.078 | 105 | 468805   | 66.4614  | ng | 68     |
| 28) Hexachloroethane           | 6.169 | 117 | 144964   | 63.6390  | ng | 86     |
| 29) N-Nitroso-di-n-propyla...  | 6.084 | 70  | 222825   | 48.7666  | ng | 91     |
| 30) 3&4-Methylphenol           | 6.078 | 108 | 330463   | 63.7201  | ng | 100    |
| 33) Nitrobenzene               | 6.212 | 77  | 335711   | 49.8357  | ng | 75     |
| 34) Isophorone                 | 6.404 | 82  | 621317   | 53.9258  | ng | 84     |
| 35) 2-Nitrophenol              | 6.463 | 139 | 185382   | 68.6499  | ng | 82     |
| 36) 2,4-Dimethylphenol         | 6.495 | 107 | 332873   | 60.7608  | ng | 86     |
| 37) Benzoic Acid               | 6.586 | 105 | 367472   | 86.4972  | ng | 41     |
| 38) bis(2-Chloroethoxy)met...  | 6.570 | 93  | 417207   | 62.7130  | ng | 96     |
| 39) 2,4-Dichlorophenol         | 6.650 | 162 | 285728   | 69.9875  | ng | 87     |
| 40) 1,2,4-Trichlorobenzene     | 6.720 | 180 | 309195   | 67.0442  | ng | 97     |
| 41) Naphthalene                | 6.784 | 128 | 1053360  | 73.1179  | ng | 99     |
| 42) 4-Chloroaniline            | 6.816 | 127 | 393940m  | 81.4480  | ng |        |
| 43) Hexachlorobutadiene        | 6.880 | 225 | 157056   | 58.6428  | ng | 96     |
| 44) Caprolactam                | 7.088 | 113 | 120045   | 74.5729  | ng | 57     |
| 45) 4-Chloro-3-methylphenol    | 7.179 | 107 | 284378   | 59.4686  | ng | 75     |
| 46) 2-Methylnaphthalene        | 7.318 | 142 | 703401   | 69.3115  | ng | 99     |
| 47) 1-Methylnaphthalene        | 7.398 | 142 | 677418   | 69.4568  | ng | 91     |
| 48) Methylnaphthalenes (To...  | 7.318 | 142 | 1380665m | 138.6611 | ng |        |
| 49) 1,1'-Biphenyl              | 7.686 | 154 | 817775   | 67.5799  | ng | 96     |
| 51) 1,2,4,5-Tetrachloroben...  | 7.451 | 216 | 304277   | 75.7854  | ng | 99     |
| 52) Hexachlorocyclopentadiene  | 7.446 | 237 | 154306   | 93.6561  | ng | 99     |
| 53) 2,4,6-Trichlorophenol      | 7.537 | 196 | 196769   | 72.6849  | ng | 100    |
| 54) 2,4,5-Trichlorophenol      | 7.564 | 196 | 207651   | 71.7655  | ng | 98     |
| 56) 2-Chloronaphthalene        | 7.708 | 162 | 623092   | 73.1360  | ng | 92     |
| 57) 1,4-Dimethylnaphthalene    | 7.991 | 156 | 546954   | 86.8210  | ng | 85     |
| 58) Dimethylnaphthalenes (...) | 7.991 | 156 | 546954   | 86.8210  | ng | 85     |
| 59) Diphenyl Ether             | 7.777 | 170 | 464394   | 77.8320  | ng | 74     |
| 60) 2-Nitroaniline             | 7.783 | 65  | 191797   | 47.7166  | ng | 43     |
| 61) Coumarin                   | 7.964 | 146 | 258454   | 78.0250  | ng | 85     |
| 62) Acenaphthylene             | 8.066 | 152 | 937536   | 78.0268  | ng | 99     |
| 63) Dimethylphthalate          | 7.938 | 163 | 688769   | 68.7083  | ng | 98     |
| 64) 2,6-Dinitrotoluene         | 7.986 | 165 | 158899   | 71.3073  | ng | 59     |
| 65) Acenaphthene               | 8.215 | 153 | 645768   | 75.8097  | ng | 99     |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95173.D Sam Mult : 1 Vial# : 6 Qt On : 10/08/18 15:44  
 Acq On : 10/ 8/18 14:40 Misc : A,BNA Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.130  | 138  | 176498   | 81.7234 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.221  | 184  | 72475    | 57.0407 | ng    | 47       |
| 68) Dibenzofuran               | 8.370  | 168  | 889421   | 75.3791 | ng    | 83       |
| 69) 2,4-Dinitrotoluene         | 8.338  | 165  | 211535   | 68.2448 | ng    | 59       |
| 70) 4-Nitrophenol              | 8.258  | 65   | 122737   | 50.2704 | ng    | 81       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.472  | 232  | 180122   | 72.1007 | ng    | 84       |
| 72) Fluorene                   | 8.685  | 166  | 715948   | 71.2401 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.680  | 204  | 330278   | 68.1742 | ng    | 82       |
| 74) Diethylphthalate           | 8.563  | 149  | 695221   | 69.6230 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.685  | 138  | 199888   | 76.7832 | ng    | 69       |
| 76) Atrazine                   | 9.316  | 200  | 214031   | 72.5058 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.717  | 198  | 96388    | 59.3556 | ng    | 68       |
| 79) n-Nitrosodiphenylamine     | 8.787  | 169  | 621522   | 72.6041 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.830  | 77   | 696008   | 59.1774 | ng    | 82       |
| 82) 4-Bromophenyl-phenylether  | 9.161  | 248  | 197399   | 71.5738 | ng    | 78       |
| 83) Hexachlorobenzene          | 9.225  | 284  | 197503   | 73.6266 | ng    | 71       |
| 84) N-Octadecane               | 9.508  | 57   | 378277   | 48.2147 | ng    | 65       |
| 85) Pentachlorophenol          | 9.417  | 266  | 127836   | 76.5782 | ng    | 97       |
| 86) Phenanthrene               | 9.652  | 178  | 1072610  | 72.5228 | ng    | 100      |
| 87) Anthracene                 | 9.706  | 178  | 1100317  | 72.1539 | ng    | 100      |
| 88) Carbazole                  | 9.866  | 167  | 998668   | 72.4575 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.261 | 149  | 1189360  | 66.6376 | ng    | 97       |
| 90) Fluoranthene               | 10.967 | 202  | 1128530  | 68.8833 | ng    | 93       |
| 92) Pyrene                     | 11.228 | 202  | 1141203  | 72.2044 | ng    | 90       |
| 93) Benzidine                  | 11.116 | 184  | 396554   | 74.3531 | ng    | 88       |
| 95) 4,4'-DDE                   | 11.357 | 246  | 235169   | 79.0216 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 407915   | 80.5236 | ng    | 94       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 521567   | 69.4949 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.110 | 235  | 324557   | 74.8611 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 337311   | 82.4438 | ng    | 98       |
| 100) Benzo[a]anthracene        | 12.639 | 228  | 1078099  | 74.1495 | ng    | 98       |
| 101) Chrysene                  | 12.681 | 228  | 997510   | 72.8820 | ng    | 100      |
| 102) bis(2-Ethylhexyl)phtha... | 12.714 | 149  | 715154   | 72.2365 | ng    | 93       |
| 104) Di-n-octylphthalate       | 13.461 | 149  | 1209334  | 67.4360 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.862 | 252  | 1037783  | 74.0188 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.894 | 252  | 954681   | 70.3756 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.209 | 252  | 971691   | 73.0629 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.529 | 276  | 1025449  | 77.6687 | ng    | 88       |
| 109) Dibenzo[a,h]anthracene    | 15.556 | 278  | 857228   | 81.6459 | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.887 | 276  | 851832   | 77.4459 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



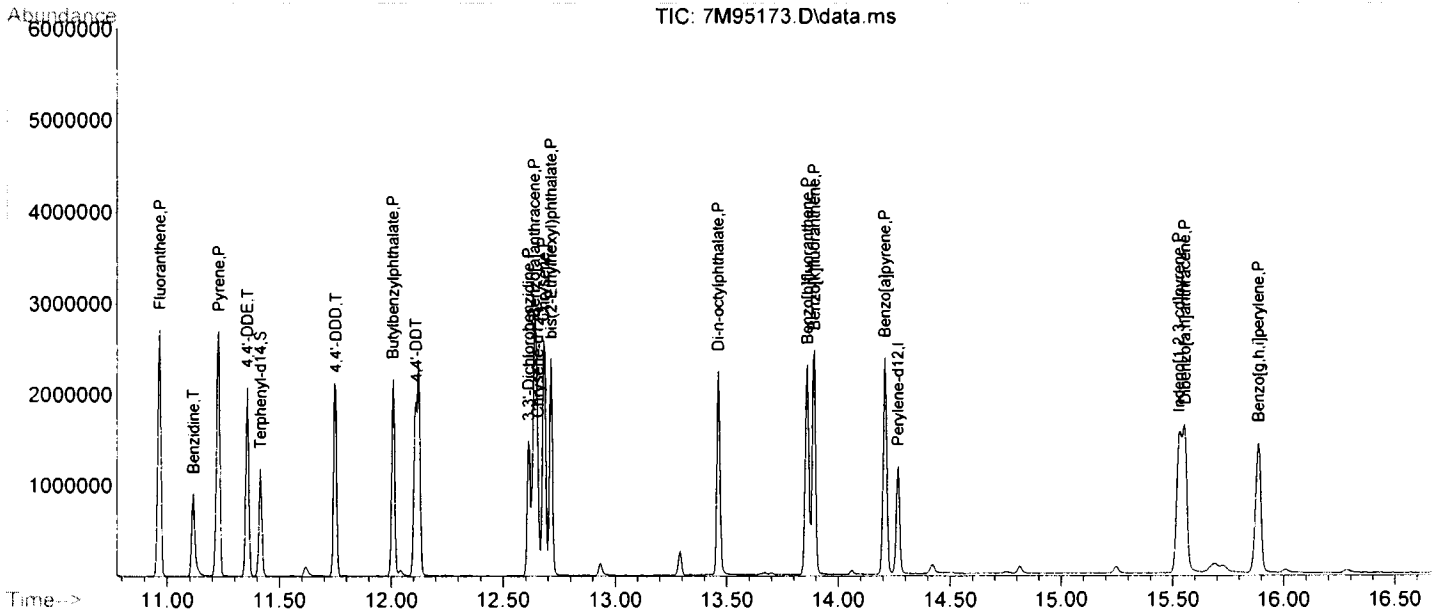
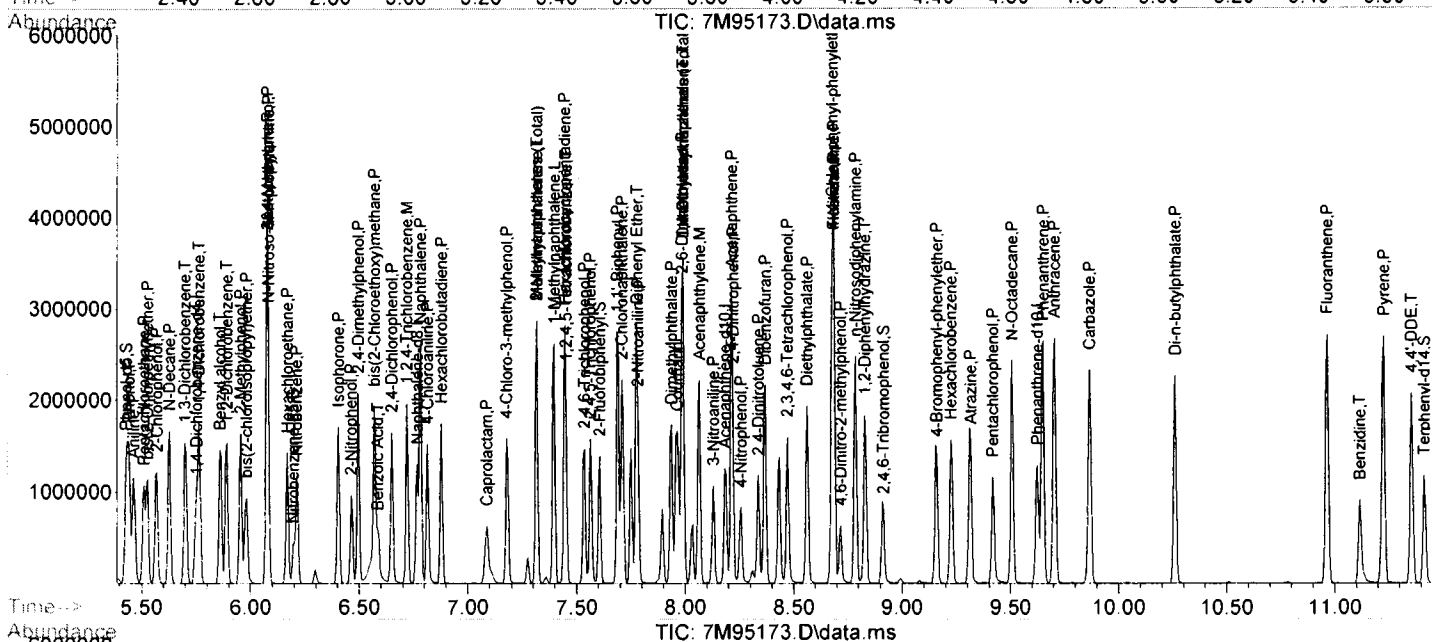
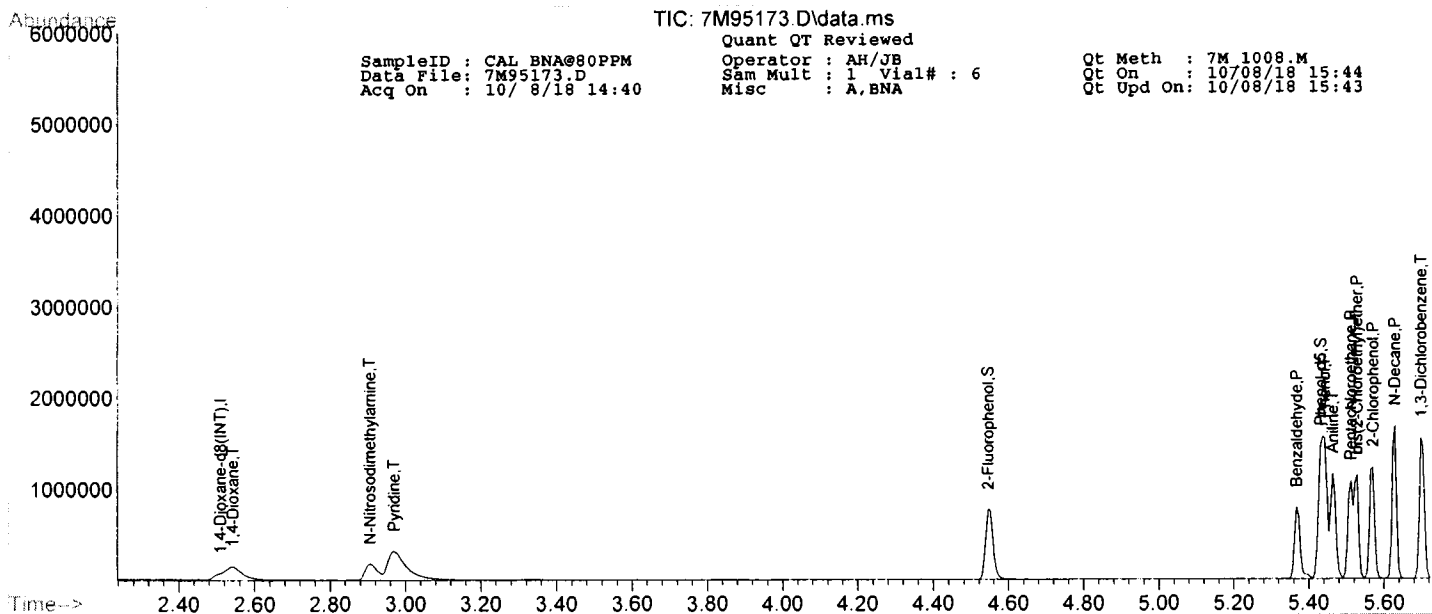
TIC: 7M95173.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@80PPM  
Data File: 7M95173.D  
Acq On : 10/ 8/18 14:40

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

```
Qt Meth   : 7M 1008.M
Qt On      : 10/08/18 15:44
Qt Upd On : 10/08/18 15:43
```



SampleID : CAL\_BNA@120PPM  
Data File: 7M95172.D  
Acq On : 10/ 8/18 14:16

Operator : AH/JB  
Sam Mult : 1 Vial# : 5  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:43  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.510  | 96   | 82152    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.753  | 152  | 134996   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.762  | 136  | 501928   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.178  | 164  | 287749   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.620  | 188  | 498911   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.655 | 240  | 487388   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.295 | 264  | 430382   | 40.00 | ng    | 0.04     |

|                             |        |     |          |        |         |      |
|-----------------------------|--------|-----|----------|--------|---------|------|
| System Monitoring Compounds |        |     |          |        |         |      |
| 11) 2-Fluorophenol          | 4.551  | 112 | 542384   | 114.81 | ng      | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =      | 114.81% |      |
| 16) Phenol-d5               | 5.437  | 99  | 762683   | 107.65 | ng      | 0.01 |
| Spiked Amount 100.000       |        |     | Recovery | =      | 107.65% |      |
| 32) Nitrobenzene-d5         | 6.196  | 128 | 98291    | 59.28  | ng      | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =      | 118.56% |      |
| 55) 2-Fluorobiphenyl        | 7.596  | 172 | 562247   | 62.76  | ng      | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =      | 125.52% |      |
| 80) 2,4,6-Tribromophenol    | 8.910  | 330 | 153461   | 126.56 | ng      | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery | =      | 126.56% |      |
| 94) Terphenyl-d14           | 11.415 | 244 | 522557   | 63.23  | ng      | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery | =      | 126.46% |      |

|                                |       |     |          |          |    |        |
|--------------------------------|-------|-----|----------|----------|----|--------|
| Target Compounds               |       |     |          |          |    | Qvalue |
| 8) 1,4-Dioxane                 | 2.542 | 88  | 231906   | 114.3497 | ng | 90     |
| 9) Pyridine                    | 2.969 | 79  | 628257   | 100.4113 | ng | 61     |
| 10) N-Nitrosodimethylamine     | 2.905 | 74  | 359343   | 94.6410  | ng | 65     |
| 12) Benzaldehyde               | 5.368 | 77  | 221456   | 65.3701  | ng | 73     |
| 13) Aniline                    | 5.464 | 93  | 739008m  | 95.0534  | ng |        |
| 14) Pentachloroethane          | 5.512 | 117 | 180666   | 104.6196 | ng | 83     |
| 15) bis(2-Chloroethyl)ether    | 5.528 | 93  | 531347   | 98.9455  | ng | 73     |
| 17) Phenol                     | 5.448 | 94  | 748440   | 93.3946  | ng | 76     |
| 18) 2-Chlorophenol             | 5.571 | 128 | 562119   | 107.1896 | ng | 74     |
| 19) N-Decane                   | 5.630 | 57  | 462518   | 71.1825  | ng | 83     |
| 20) 1,3-Dichlorobenzene        | 5.704 | 146 | 597250   | 103.2415 | ng | 96     |
| 22) 1,4-Dichlorobenzene        | 5.763 | 146 | 599219   | 109.5176 | ng | 97     |
| 23) 1,2-Dichlorobenzene        | 5.891 | 146 | 564550   | 107.7359 | ng | 98     |
| 24) Benzyl alcohol             | 5.865 | 108 | 369770   | 122.8955 | ng | 63     |
| 25) bis(2-chloroisopropyl)...  | 5.982 | 45  | 546267   | 63.9341  | ng | 94     |
| 26) 2-Methylphenol             | 5.956 | 108 | 492435   | 101.0332 | ng | 96     |
| 27) Acetophenone               | 6.078 | 105 | 678037   | 94.9858  | ng | 68     |
| 28) Hexachloroethane           | 6.169 | 117 | 223127   | 96.7930  | ng | 85     |
| 29) N-Nitroso-di-n-propyla...  | 6.084 | 70  | 319378   | 71.1358  | ng | 90     |
| 30) 3&4-Methylphenol           | 6.084 | 108 | 475892   | 90.6755  | ng | 98     |
| 33) Nitrobenzene               | 6.212 | 77  | 508942   | 74.6649  | ng | 75     |
| 34) Isophorone                 | 6.404 | 82  | 942394   | 80.8332  | ng | 83     |
| 35) 2-Nitrophenol              | 6.463 | 139 | 292633   | 107.0949 | ng | 80     |
| 36) 2,4-Dimethylphenol         | 6.495 | 107 | 501291   | 89.5741  | ng | 85     |
| 37) Benzoic Acid               | 6.602 | 105 | 609559   | 133.8724 | ng | 42     |
| 38) bis(2-Chloroethoxy)met...  | 6.570 | 93  | 634321   | 94.2299  | ng | 96     |
| 39) 2,4-Dichlorophenol         | 6.650 | 162 | 442226   | 103.6864 | ng | 87     |
| 40) 1,2,4-Trichlorobenzene     | 6.719 | 180 | 477181   | 102.2552 | ng | 97     |
| 41) Naphthalene                | 6.778 | 128 | 1581629  | 105.2726 | ng | 99     |
| 42) 4-Chloroaniline            | 6.810 | 127 | 552515m  | 112.8932 | ng |        |
| 43) Hexachlorobutadiene        | 6.874 | 225 | 243070   | 89.6944  | ng | 96     |
| 44) Caprolactam                | 7.093 | 113 | 186462   | 114.4724 | ng | 57     |
| 45) 4-Chloro-3-methylphenol    | 7.179 | 107 | 435933   | 90.0918  | ng | 71     |
| 46) 2-Methylnaphthalene        | 7.312 | 142 | 1057555  | 102.9862 | ng | 99     |
| 47) 1-Methylnaphthalene        | 7.387 | 142 | 1032374  | 104.6089 | ng | 91     |
| 48) Methylnaphthalenes (To...  | 7.312 | 142 | 2089996m | 207.4366 | ng |        |
| 49) 1,1'-Biphenyl              | 7.681 | 154 | 1226961  | 100.2047 | ng | 94     |
| 51) 1,2,4,5-Tetrachloroben...  | 7.441 | 216 | 461928   | 113.0263 | ng | 98     |
| 52) Hexachlorocyclopentadiene  | 7.435 | 237 | 240608   | 129.0989 | ng | 99     |
| 53) 2,4,6-Trichlorophenol      | 7.526 | 196 | 321127   | 116.5341 | ng | 99     |
| 54) 2,4,5-Trichlorophenol      | 7.558 | 196 | 331601   | 112.5866 | ng | 99     |
| 56) 2-Chloronaphthalene        | 7.702 | 162 | 935055   | 107.8214 | ng | 92     |
| 57) 1,4-Dimethylnaphthalene    | 7.986 | 156 | 810145   | 126.3356 | ng | 86     |
| 58) Dimethylnaphthalenes (...) | 7.986 | 156 | 810145   | 126.3356 | ng | 86     |
| 59) Diphenyl Ether             | 7.767 | 170 | 710945   | 117.0568 | ng | 77     |
| 60) 2-Nitroaniline             | 7.777 | 65  | 292981   | 71.6071  | ng | 42     |
| 61) Coumarin                   | 7.964 | 146 | 403534   | 119.6794 | ng | 86     |
| 62) Acenaphthylene             | 8.060 | 152 | 1439961  | 117.7323 | ng | 99     |
| 63) Dimethylphthalate          | 7.932 | 163 | 1044295  | 102.3406 | ng | 98     |
| 64) 2,6-Dinitrotoluene         | 7.980 | 165 | 235690   | 103.9066 | ng | 59     |
| 65) Acenaphthene               | 8.210 | 153 | 973464   | 112.2683 | ng | 98     |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM  
 Data File: 7M95172.D  
 Acq On : 10/ 8/18 14:16

Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:43  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.124  | 138  | 258513   | 117.5921 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.215  | 184  | 124496   | 91.9045  | ng    | 38       |
| 68) Dibenzofuran               | 8.360  | 168  | 1342349  | 110.5941 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.333  | 165  | 332338   | 105.3310 | ng    | 59       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 191188   | 76.9283  | ng    | 81       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.466  | 232  | 282587   | 111.1256 | ng    | 83       |
| 72) Fluorene                   | 8.680  | 166  | 1063389  | 103.9499 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.669  | 204  | 497186   | 100.8204 | ng    | 84       |
| 74) Diethylphthalate           | 8.557  | 149  | 1068494  | 105.1213 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.685  | 138  | 308969   | 116.5959 | ng    | 68       |
| 76) Atrazine                   | 9.310  | 200  | 331798   | 110.4228 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.712  | 198  | 159910   | 91.0506  | ng    | 62       |
| 79) n-Nitrosodiphenylamine     | 8.782  | 169  | 962262   | 109.7387 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.824  | 77   | 1061543  | 88.1132  | ng    | 80       |
| 82) 4-Bromophenyl-phenylether  | 9.156  | 248  | 302438   | 107.0551 | ng    | 78       |
| 83) Hexachlorobenzene          | 9.220  | 284  | 309329   | 112.5755 | ng    | 71       |
| 84) N-Octadecane               | 9.503  | 57   | 567155   | 70.5721  | ng    | 63       |
| 85) Pentachlorophenol          | 9.412  | 266  | 204854   | 112.9838 | ng    | 97       |
| 86) Phenanthrene               | 9.647  | 178  | 1652249  | 109.0613 | ng    | 99       |
| 87) Anthracene                 | 9.700  | 178  | 1681442  | 107.6430 | ng    | 98       |
| 88) Carbazole                  | 9.866  | 167  | 1540992  | 109.1502 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.256 | 149  | 1824827  | 99.8136  | ng    | 97       |
| 90) Fluoranthene               | 10.967 | 202  | 1734740  | 103.3707 | ng    | 93       |
| 92) Pyrene                     | 11.228 | 202  | 1745936  | 108.7755 | ng    | 89       |
| 93) Benzidine                  | 11.116 | 184  | 577572   | 111.5689 | ng    | 86       |
| 95) 4,4'-DDE                   | 11.357 | 246  | 365067   | 120.7926 | ng    | 93       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 633460   | 123.1331 | ng    | 95       |
| 97) Butylbenzylphthalate       | 12.008 | 149  | 811746   | 106.5038 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.110 | 235  | 519878   | 118.0779 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.617 | 252  | 486288   | 123.8199 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.644 | 228  | 1650442  | 111.7770 | ng    | 97       |
| 101) Chrysene                  | 12.687 | 228  | 1545396  | 111.1847 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.713 | 149  | 1100864  | 109.4947 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.477 | 149  | 1911146  | 105.3775 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.883 | 252  | 1621317m | 114.3436 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.915 | 252  | 1479291m | 107.8266 | ng    |          |
| 107) Benzo[a]pyrene            | 14.241 | 252  | 1508003  | 112.1192 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.572 | 276  | 1639331  | 122.7742 | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.593 | 278  | 1366922  | 118.5674 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 1358884  | 122.1618 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

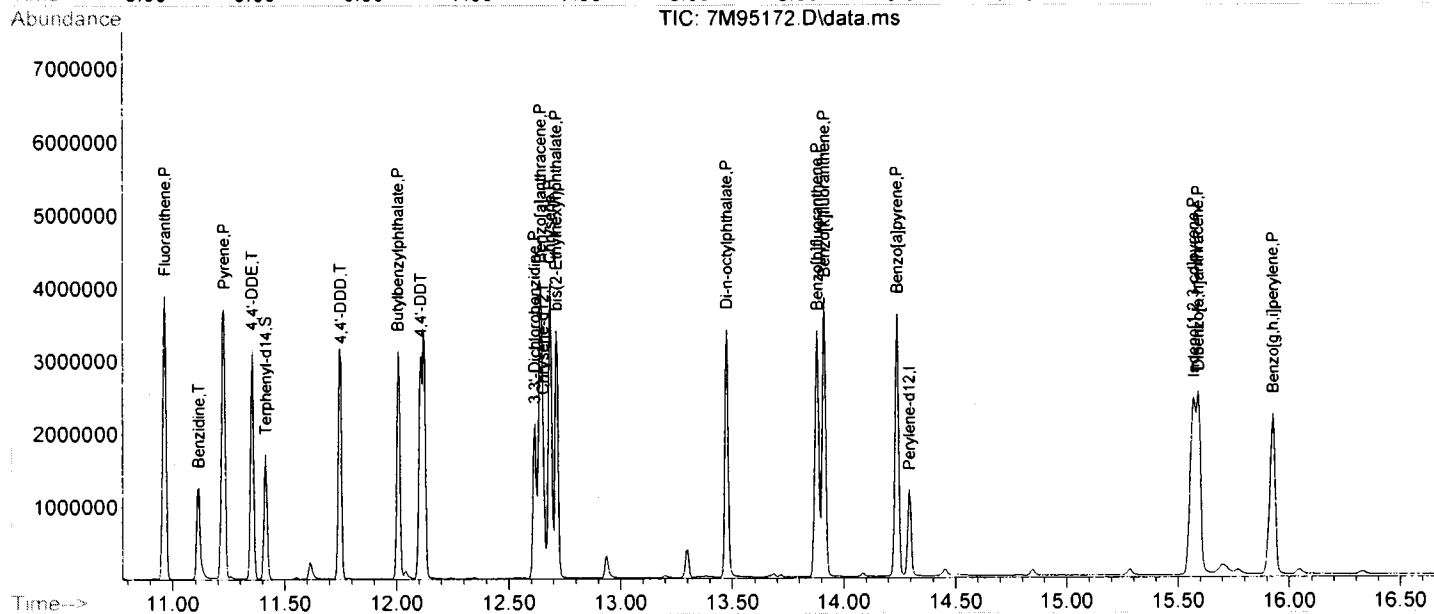
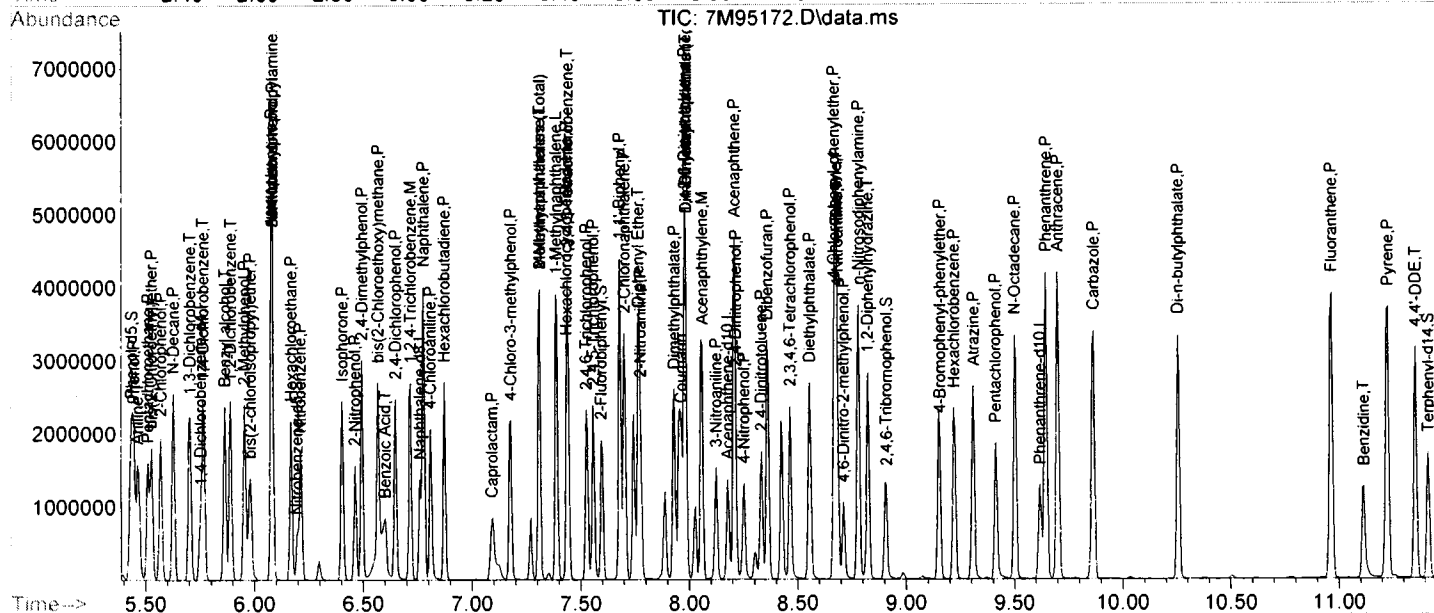
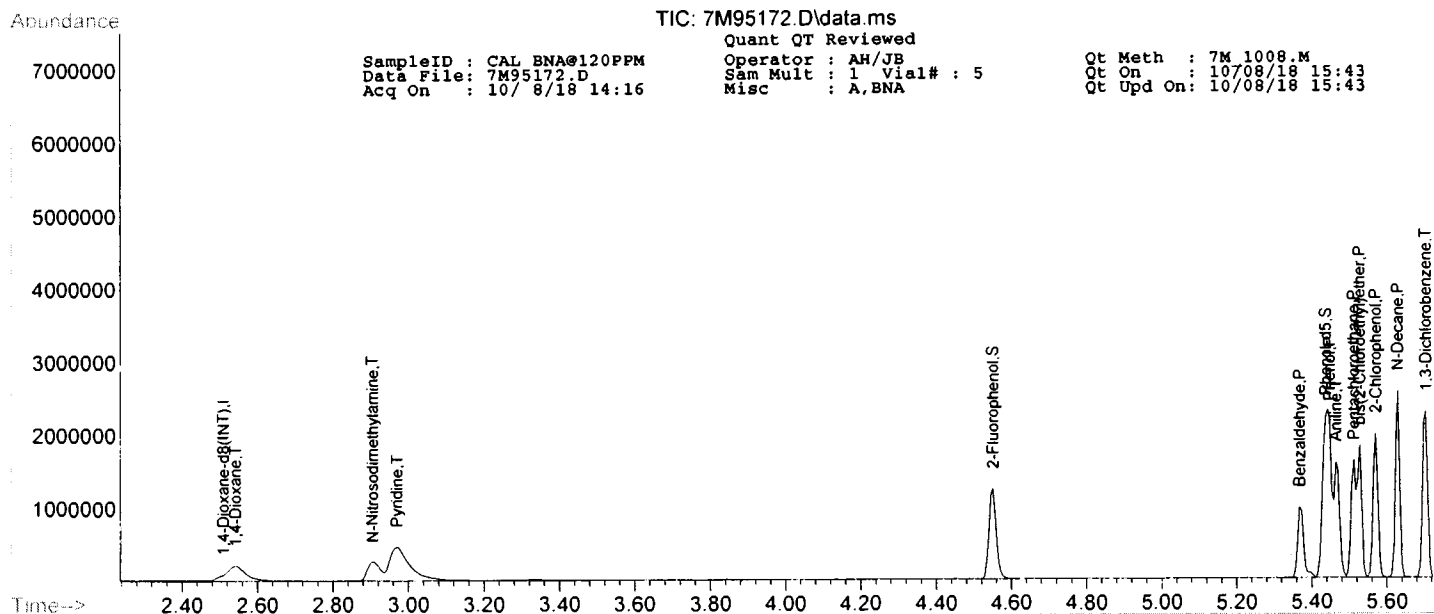
TIC: 7M95172.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@120PPM  
 Data File: 7M95172.D  
 Acq On : 10/ 8/18 14:16

Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 7M 1008.M  
 Qt On : 10/08/18 15:43  
 Qt Upd On: 10/08/18 15:43



SampleID : CAL\_BNA@160PPM  
Data File: 7M95171.D  
Acq On : 10/ 8/18 13:53

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:43  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 76070      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.752  | 152  | 123955     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.778  | 136  | 459360     | 40.00    | ng    | 0.02     |
| 50) Acenaphthene-d10           | 8.210  | 164  | 266448     | 40.00    | ng    | 0.03     |
| 77) Phenanthrene-d10           | 9.642  | 188  | 461445     | 40.00    | ng    | 0.02     |
| 91) Chrysene-d12               | 12.660 | 240  | 448112     | 40.00    | ng    | 0.01     |
| 103) Perylene-d12              | 14.279 | 264  | 397716     | 40.00    | ng    | 0.02     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.550  | 112  | 666474     | 152.36   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 152.36%  |       |          |
| 16) Phenol-d5                  | 5.437  | 99   | 931222     | 141.94   | ng    | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery = | 141.94%  |       |          |
| 32) Nitrobenzene-d5            | 6.201  | 128  | 122329     | 80.61    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 161.22%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.628  | 172  | 687062     | 82.82    | ng    | 0.03     |
| Spiked Amount 50.000           |        |      | Recovery = | 165.64%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.936  | 330  | 193421     | 158.84   | ng    | 0.03     |
| Spiked Amount 100.000          |        |      | Recovery = | 158.84%  |       |          |
| 94) Terphenyl-d14              | 11.426 | 244  | 659232     | 86.76    | ng    | 0.01     |
| Spiked Amount 50.000           |        |      | Recovery = | 173.52%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 284901     | 148.4183 | ng    | 91       |
| 9) Pyridine                    | 2.969  | 79   | 776420     | 130.8265 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 444794     | 126.5126 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 240146     | 77.6129  | ng    | 71       |
| 13) Aniline                    | 5.469  | 93   | 901555m    | 125.2320 | ng    |          |
| 14) Pentachloroethane          | 5.512  | 117  | 222398     | 135.4957 | ng    | 84       |
| 15) bis(2-Chloroethyl)ether    | 5.528  | 93   | 651919     | 127.2396 | ng    | 74       |
| 17) Phenol                     | 5.448  | 94   | 907753     | 122.3312 | ng    | 77       |
| 18) 2-Chlorophenol             | 5.571  | 128  | 687953     | 141.6733 | ng    | 76       |
| 19) N-Decane                   | 5.630  | 57   | 557669     | 92.3054  | ng    | 82       |
| 20) 1,3-Dichlorobenzene        | 5.704  | 146  | 725190     | 135.3801 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.769  | 146  | 731875     | 145.6773 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 694591     | 144.3591 | ng    | 97       |
| 24) Benzyl alcohol             | 5.865  | 108  | 451176     | 155.0270 | ng    | 67       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 657201     | 83.7688  | ng    | 95       |
| 26) 2-Methylphenol             | 5.961  | 108  | 606245     | 130.4428 | ng    | 96       |
| 27) Acetophenone               | 6.084  | 105  | 794025     | 121.1425 | ng    | 68       |
| 28) Hexachloroethane           | 6.175  | 117  | 274283     | 129.5828 | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.089  | 70   | 378220     | 94.7339  | ng    | 91       |
| 30) 3&4-Methylphenol           | 6.084  | 108  | 561195     | 116.4535 | ng    | 99       |
| 33) Nitrobenzene               | 6.217  | 77   | 622944     | 99.8586  | ng    | 76       |
| 34) Isophorone                 | 6.415  | 82   | 1148096    | 107.6028 | ng    | 80       |
| 35) 2-Nitrophenol              | 6.474  | 139  | 358129     | 143.2100 | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.506  | 107  | 620651     | 119.9820 | ng    | 86       |
| 37) Benzoic Acid               | 6.623  | 105  | 750486     | 172.2890 | ng    | 41       |
| 38) bis(2-Chloroethoxy)met...  | 6.581  | 93   | 770813     | 125.1171 | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.661  | 162  | 541630     | 134.8444 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.730  | 180  | 580793     | 135.9915 | ng    | 97       |
| 41) Naphthalene                | 6.794  | 128  | 1905776    | 134.9056 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.826  | 127  | 615062m    | 137.3191 | ng    |          |
| 43) Hexachlorobutadiene        | 6.890  | 225  | 293550     | 118.3598 | ng    | 96       |
| 44) Caprolactam                | 7.125  | 113  | 230612     | 154.6966 | ng    | 55       |
| 45) 4-Chloro-3-methylphenol    | 7.200  | 107  | 536973     | 121.2568 | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.334  | 142  | 1280021    | 136.2013 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.414  | 142  | 1247882    | 138.1635 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.414  | 142  | 2528236m   | 274.1863 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.713  | 154  | 1489028    | 132.8766 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.473  | 216  | 556919     | 147.1630 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.462  | 237  | 298637     | 159.3977 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.558  | 196  | 378389     | 148.2915 | ng    | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.585  | 196  | 400046     | 146.6838 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.729  | 162  | 1151374    | 143.3790 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.012  | 156  | 957395     | 161.2335 | ng    | 88       |
| 58) Dimethylnaphthalenes (...) | 8.012  | 156  | 957395     | 161.2335 | ng    | 88       |
| 59) Diphenyl Ether             | 7.799  | 170  | 856156     | 152.2352 | ng    | 74       |
| 60) 2-Nitroaniline             | 7.804  | 65   | 349895     | 92.3540  | ng    | 48       |
| 61) Coumarin                   | 7.996  | 146  | 487176     | 156.0366 | ng    | 86       |
| 62) Acenaphthylene             | 8.087  | 152  | 1738379    | 153.4937 | ng    | 98       |
| 63) Dimethylphthalate          | 7.964  | 163  | 1282684    | 135.7519 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.012  | 165  | 279600     | 133.1191 | ng    | 60       |
| 65) Acenaphthene               | 8.237  | 153  | 1174450    | 146.2761 | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL\_BNA@160PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95171.D Sam Mult : 1 Vial# : 4 Qt On : 10/08/18 15:43  
 Acq On : 10/ 8/18 13:53 Misc : A,BNA Qt Upd On: 10/08/18 15:43

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.156  | 138  | 305912   | 150.2774 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.247  | 184  | 158845   | 121.8928 | ng    | 30       |
| 68) Dibenzofuran               | 8.392  | 168  | 1656816  | 145.8861 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.365  | 165  | 412025   | 141.0266 | ng    | 57       |
| 70) 4-Nitrophenol              | 8.285  | 65   | 237620   | 103.2547 | ng    | 83       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.493  | 232  | 352766   | 149.8131 | ng    | 84       |
| 72) Fluorene                   | 8.707  | 166  | 1270157  | 134.0883 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.701  | 204  | 599978   | 131.3912 | ng    | 82       |
| 74) Diethylphthalate           | 8.584  | 149  | 1308296  | 139.0036 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.717  | 138  | 375024   | 152.8371 | ng    | 69       |
| 76) Atrazine                   | 9.337  | 200  | 406699   | 146.1704 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.744  | 198  | 202866   | 119.2720 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.808  | 169  | 1171229  | 144.4147 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.851  | 77   | 1289869  | 115.7583 | ng    | 79       |
| 82) 4-Bromophenyl-phenylether  | 9.177  | 248  | 377774   | 144.5793 | ng    | 82       |
| 83) Hexachlorobenzene          | 9.246  | 284  | 380533   | 149.7334 | ng    | 67       |
| 84) N-Octadecane               | 9.524  | 57   | 681052   | 91.6252  | ng    | 61       |
| 85) Pentachlorophenol          | 9.439  | 266  | 260365   | 147.3459 | ng    | 98       |
| 86) Phenanthrene               | 9.668  | 178  | 1996194  | 142.4626 | ng    | 99       |
| 87) Anthracene                 | 9.722  | 178  | 2059489  | 142.5498 | ng    | 98       |
| 88) Carbazole                  | 9.882  | 167  | 1891124  | 144.8263 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.272 | 149  | 2215679  | 131.0321 | ng    | 97       |
| 90) Fluoranthene               | 10.977 | 202  | 2136180  | 137.6271 | ng    | 94       |
| 92) Pyrene                     | 11.239 | 202  | 2140705  | 145.0601 | ng    | 89       |
| 93) Benzidine                  | 11.121 | 184  | 654052   | 143.0032 | ng    | 91       |
| 95) 4,4'-DDE                   | 11.362 | 246  | 454826   | 163.6822 | ng    | 93       |
| 96) 4,4'-DDD                   | 11.757 | 235  | 791896   | 167.4219 | ng    | 96       |
| 97) Butylbenzylphthalate       | 12.014 | 149  | 1000407  | 142.7611 | ng    | 74       |
| 98) 4,4'-DDT                   | 12.115 | 235  | 646003   | 159.5843 | ng    | 98       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252  | 582164   | 173.2059 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.649 | 228  | 2035789  | 149.9592 | ng    | 98       |
| 101) Chrysene                  | 12.692 | 228  | 1883076  | 147.3538 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.719 | 149  | 1345888  | 145.5984 | ng    | 93       |
| 104) Di-n-octylphthalate       | 13.472 | 149  | 2338806  | 139.5499 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.878 | 252  | 1920988  | 146.6053 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.910 | 252  | 1900387  | 149.8979 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.225 | 252  | 1879552  | 151.2213 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.550 | 276  | 2044951  | 165.7313 | ng    | 91       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 1698107  | 149.5014 | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.913 | 276  | 1681208  | 163.5519 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

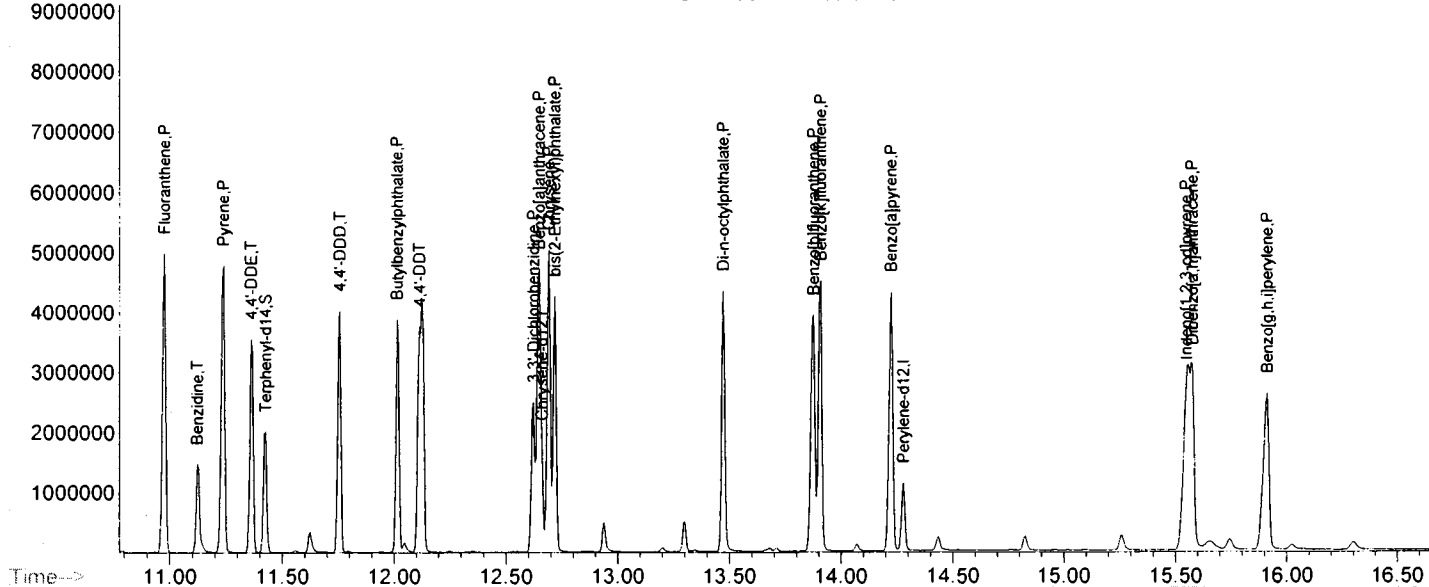
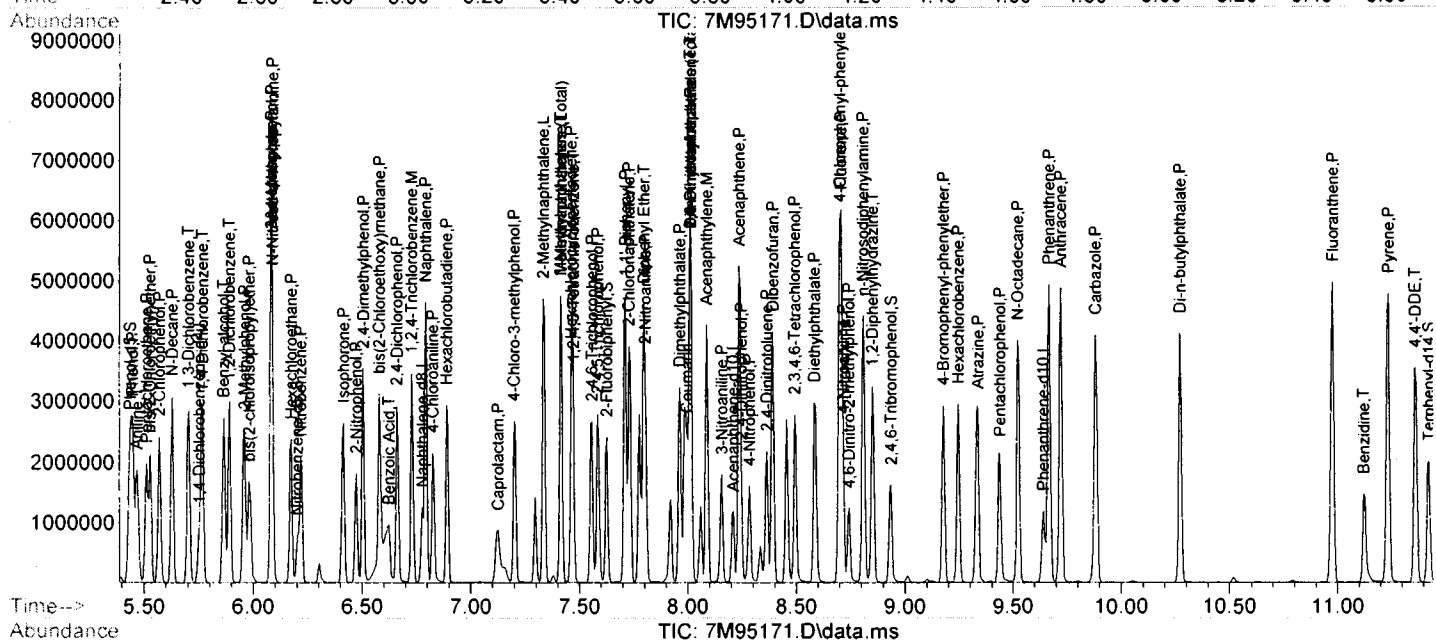
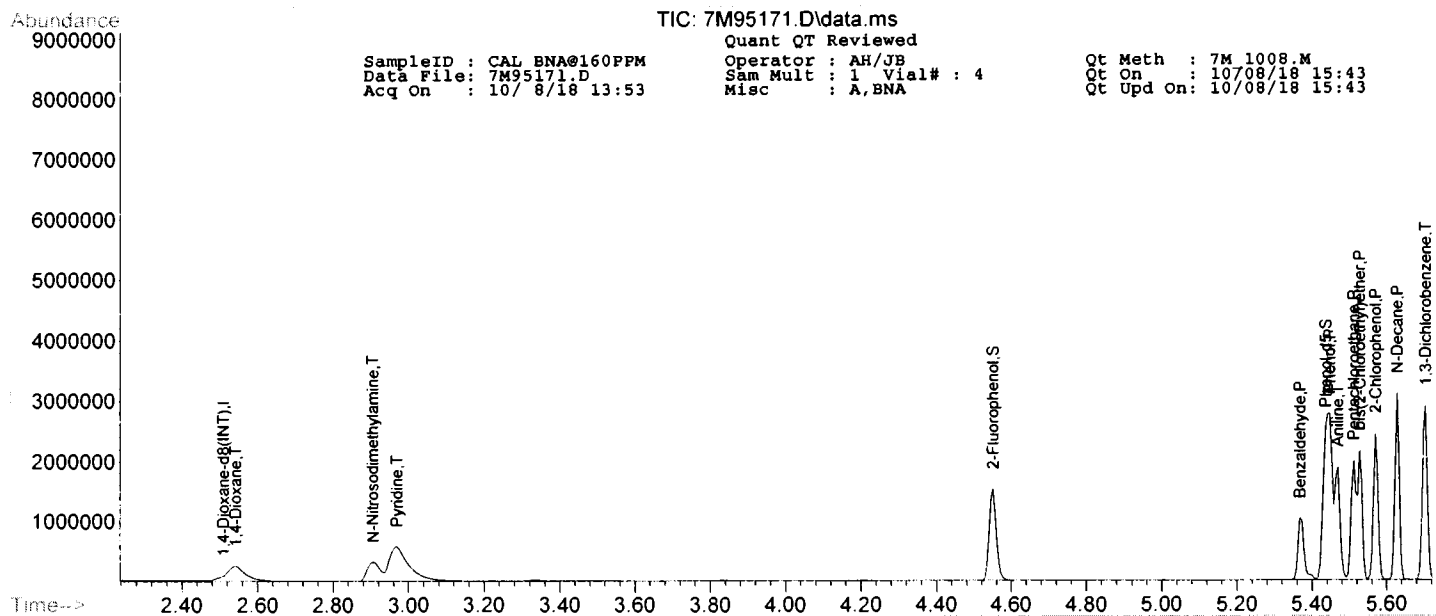
TIC: 7M95171.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@160PPM  
Data File: 7M95171.D  
Acq On : 10/ 8/18 13:53

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

```
Qt Meth   : 7M 1008.M
Qt On      : 10708/18 15:43
Qt Upd On : 10/08/18 15:43
```



SampleID : CAL BNA@196PPM  
Data File: 7M95170.D  
Acq On : 10/ 8/18 13:29

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 15:43  
Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| -----                          |        |      |            |          |       |          |
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.504  | 96   | 76812      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.752  | 152  | 126580     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.767  | 136  | 465835     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.189  | 164  | 270926     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.626  | 188  | 466920     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.660 | 240  | 452377     | 40.00    | ng    | 0.01     |
| 103) Perylene-d12              | 14.268 | 264  | 405129     | 40.00    | ng    | 0.01     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.550  | 112  | 833529     | 188.71   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 188.71%  |       |          |
| 16) Phenol-d5                  | 5.443  | 99   | 1153760    | 174.17   | ng    | 0.02     |
| Spiked Amount 100.000          |        |      | Recovery = | 174.17%  |       |          |
| 32) Nitrobenzene-d5            | 6.201  | 128  | 154552     | 100.43   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 200.86%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.606  | 172  | 856553     | 101.54   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 203.08%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.920  | 330  | 246074     | 186.89   | ng    | 0.01     |
| Spiked Amount 100.000          |        |      | Recovery = | 186.89%  |       |          |
| 94) Terphenyl-d14              | 11.421 | 244  | 835461     | 108.92   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 217.84%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 359234     | 181.5062 | ng    | 91       |
| 9) Pyridine                    | 2.964  | 79   | 978754     | 159.7190 | ng    | 61       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 563778     | 158.8062 | ng    | 65       |
| 12) Benzaldehyde               | 5.368  | 77   | 265247     | 85.6773  | ng    | 73       |
| 13) Aniline                    | 5.469  | 93   | 1113098    | 153.1232 | ng    | 79       |
| 14) Pentachloroethane          | 5.512  | 117  | 274250     | 161.9016 | ng    | 83       |
| 15) bis(2-Chloroethyl)ether    | 5.533  | 93   | 792302     | 149.6513 | ng    | 72       |
| 17) Phenol                     | 5.453  | 94   | 1114858    | 148.7899 | ng    | 79       |
| 18) 2-Chlorophenol             | 5.576  | 128  | 856633     | 174.7062 | ng    | 73       |
| 19) N-Decane                   | 5.630  | 57   | 673611     | 110.0373 | ng    | 81       |
| 20) 1,3-Dichlorobenzene        | 5.704  | 146  | 902046     | 166.7693 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.769  | 146  | 903914     | 176.1899 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.891  | 146  | 851662     | 173.3330 | ng    | 98       |
| 24) Benzyl alcohol             | 5.870  | 108  | 562113     | 181.5434 | ng    | 63       |
| 25) bis(2-chloroisopropyl)...  | 5.982  | 45   | 809597     | 101.0537 | ng    | 96       |
| 26) 2-Methylphenol             | 5.961  | 108  | 754376     | 154.3087 | ng    | 97       |
| 27) Acetophenone               | 6.084  | 105  | 933478     | 139.4650 | ng    | 67       |
| 28) Hexachloroethane           | 6.169  | 117  | 340115     | 157.3524 | ng    | 83       |
| 29) N-Nitroso-di-n-propyla...  | 6.089  | 70   | 451167     | 113.6245 | ng    | 90       |
| 30) 3&4-Methylphenol           | 6.089  | 108  | 654267     | 132.9513 | ng    | 97       |
| 33) Nitrobenzene               | 6.217  | 77   | 775834     | 122.6384 | ng    | 73       |
| 34) Isophorone                 | 6.410  | 82   | 1428008    | 131.9767 | ng    | 84       |
| 35) 2-Nitrophenol              | 6.468  | 139  | 454649     | 179.2797 | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.500  | 107  | 767012     | 145.0344 | ng    | 86       |
| 37) Benzoic Acid               | 6.629  | 105  | 967756     | 210.1114 | ng    | 40       |
| 38) bis(2-Chloroethoxy)met...  | 6.575  | 93   | 948139     | 151.7612 | ng    | 95       |
| 39) 2,4-Dichlorophenol         | 6.655  | 162  | 675259     | 161.8211 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.725  | 180  | 718938     | 165.9980 | ng    | 97       |
| 41) Naphthalene                | 6.789  | 128  | 2304688    | 157.6488 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.821  | 127  | 707888m    | 155.8467 | ng    |          |
| 43) Hexachlorobutadiene        | 6.880  | 225  | 366343     | 145.6569 | ng    | 96       |
| 44) Caprolactam                | 7.120  | 113  | 311670     | 206.1650 | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.190  | 107  | 668975     | 148.9652 | ng    | 72       |
| 46) 2-Methylnaphthalene        | 7.318  | 142  | 1550532    | 162.6920 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.398  | 142  | 1508355    | 164.6813 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.398  | 142  | 3058609m   | 327.0945 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.692  | 154  | 1788825    | 157.4108 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.451  | 216  | 680095     | 176.7412 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.446  | 237  | 366202     | 181.6885 | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.542  | 196  | 472122     | 181.9675 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.569  | 196  | 515590m    | 185.9253 | ng    |          |
| 56) 2-Chloronaphthalene        | 7.713  | 162  | 1407584    | 172.3873 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.996  | 156  | 1126733    | 186.6152 | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 7.996  | 156  | 1126733    | 186.6152 | ng    | 89       |
| 59) Diphenyl Ether             | 7.777  | 170  | 1050095    | 183.6337 | ng    | 76       |
| 60) 2-Nitroaniline             | 7.788  | 65   | 434226     | 112.7186 | ng    | 45       |
| 61) Coumarin                   | 7.980  | 146  | 601806     | 189.5653 | ng    | 87       |
| 62) Acenaphthylene             | 8.071  | 152  | 2137566    | 185.6211 | ng    | 97       |
| 63) Dimethylphthalate          | 7.948  | 163  | 1584030    | 164.8737 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.991  | 165  | 329791     | 154.4201 | ng    | 65       |
| 65) Acenaphthene               | 8.221  | 153  | 1434479    | 175.7093 | ng    | 99       |



## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM  
 Data File: 7M95170.D  
 Acq On : 10/ 8/18 13:29

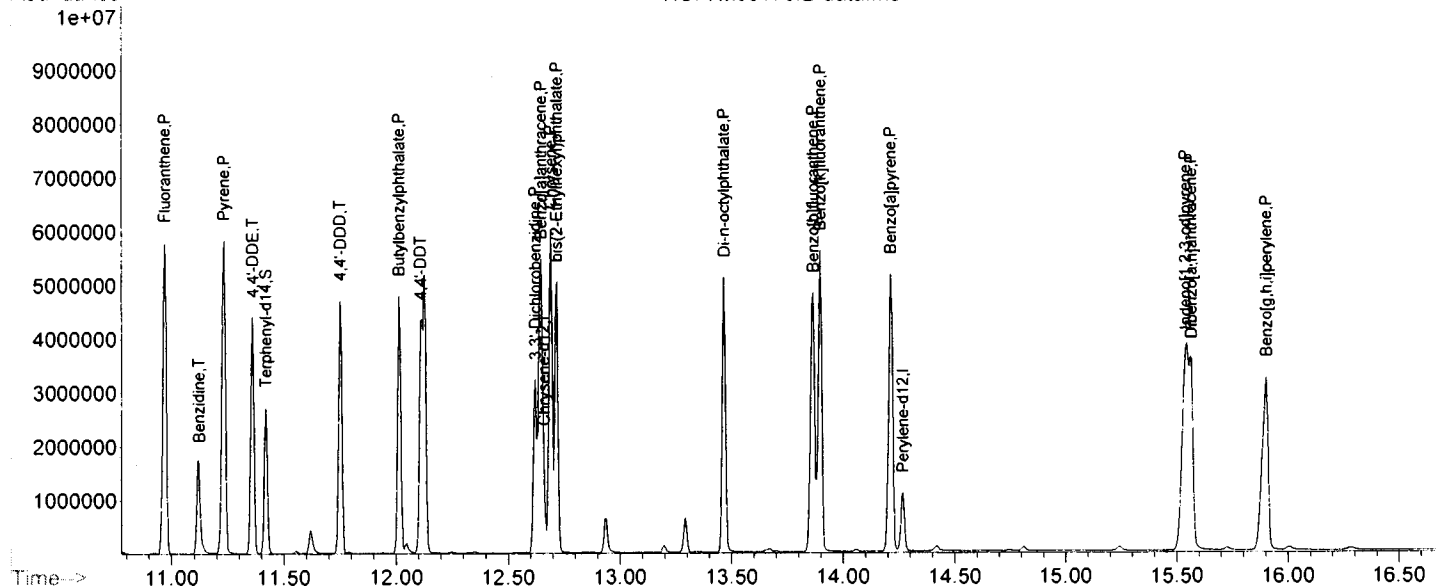
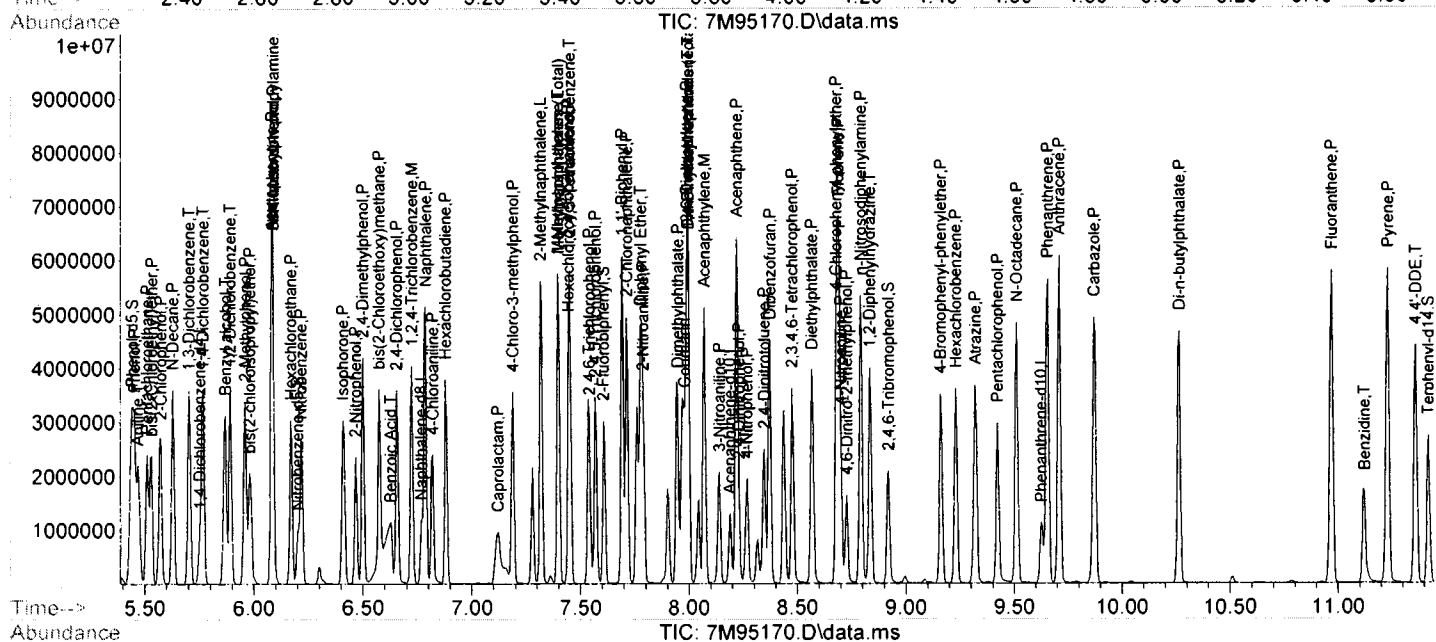
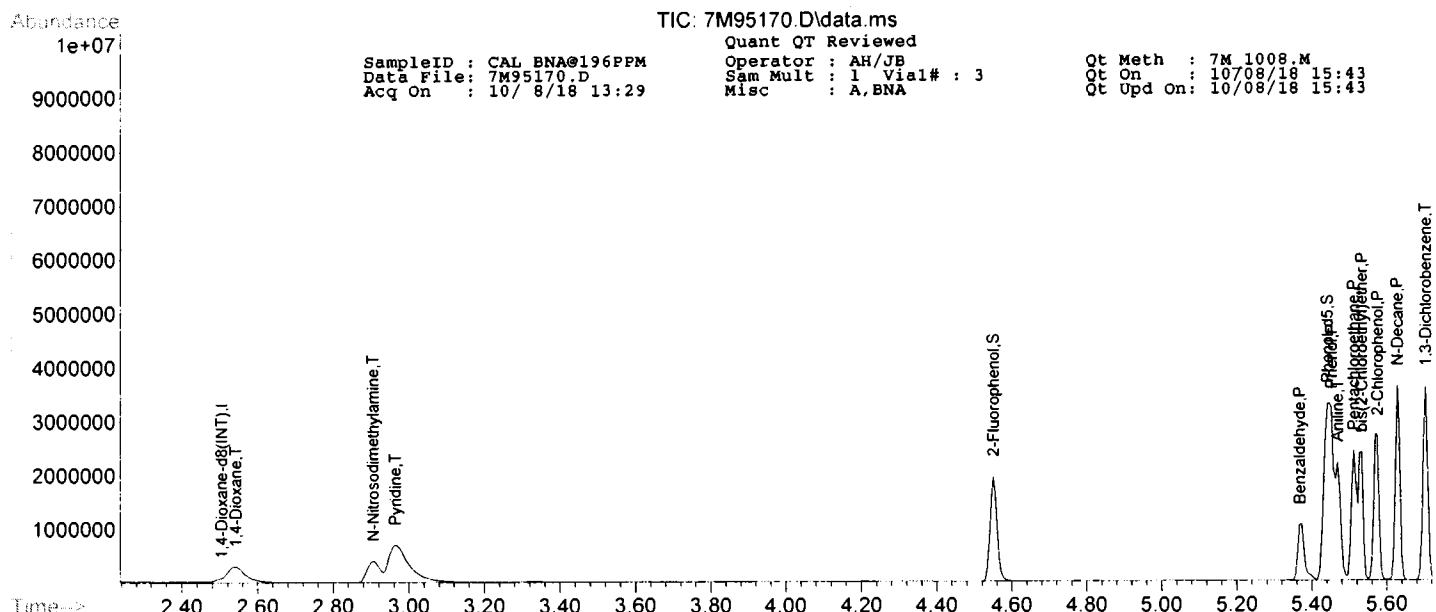
Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/08/18 15:43  
 Qt Upd On: 10/08/18 15:43

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.140  | 138  | 377296   | 182.2809 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.231  | 184  | 202399   | 147.9360 | ng    | 29       |
| 68) Dibenzofuran               | 8.376  | 168  | 2011927  | 172.8561 | ng    | 83       |
| 69) 2,4-Dinitrotoluene         | 8.349  | 165  | 517792   | 174.2989 | ng    | 57       |
| 70) 4-Nitrophenol              | 8.269  | 65   | 299028   | 127.7911 | ng    | 79       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.477  | 232  | 443750   | 185.3375 | ng    | 83       |
| 72) Fluorene                   | 8.691  | 166  | 1525863  | 158.4203 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.680  | 204  | 730186   | 157.2629 | ng    | 86       |
| 74) Diethylphthalate           | 8.568  | 149  | 1619588  | 169.2335 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.701  | 138  | 465093   | 186.4110 | ng    | 69       |
| 76) Atrazine                   | 9.321  | 200  | 511547   | 180.8146 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.728  | 198  | 259022   | 144.6528 | ng    | 69       |
| 79) n-Nitrosodiphenylamine     | 8.792  | 169  | 1441794  | 175.6914 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.835  | 77   | 1580163  | 140.1477 | ng    | 78       |
| 82) 4-Bromophenyl-phenylether  | 9.161  | 248  | 474669   | 179.5322 | ng    | 83       |
| 83) Hexachlorobenzene          | 9.230  | 284  | 484690   | 188.4811 | ng    | 67       |
| 84) N-Octadecane               | 9.513  | 57   | 813806   | 108.2014 | ng    | 60       |
| 85) Pentachlorophenol          | 9.423  | 266  | 330678   | 177.1206 | ng    | 96       |
| 86) Phenanthrene               | 9.658  | 178  | 2447189  | 172.6009 | ng    | 99       |
| 87) Anthracene                 | 9.711  | 178  | 2515556  | 172.0753 | ng    | 97       |
| 88) Carbazole                  | 9.871  | 167  | 2350977  | 177.9316 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.267 | 149  | 2719641  | 158.9498 | ng    | 97       |
| 90) Fluoranthene               | 10.972 | 202  | 2627842  | 167.3181 | ng    | 94       |
| 92) Pyrene                     | 11.234 | 202  | 2635055  | 176.8752 | ng    | 90       |
| 93) Benzidine                  | 11.121 | 184  | 784936   | 178.0820 | ng    | 87       |
| 95) 4,4'-DDE                   | 11.362 | 246  | 569926   | 203.1705 | ng    | 93       |
| 96) 4,4'-DDD                   | 11.752 | 235  | 990794   | 207.4978 | ng    | 96       |
| 97) Butylbenzylphthalate       | 12.014 | 149  | 1243221  | 175.7388 | ng    | 72       |
| 98) 4,4'-DDT                   | 12.110 | 235  | 820798   | 200.8528 | ng    | 98       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252  | 719960   | 233.2657 | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.649 | 228  | 2529340  | 184.5583 | ng    | 97       |
| 101) Chrysene                  | 12.692 | 228  | 2318553  | 179.7200 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.719 | 149  | 1678899  | 179.9113 | ng    | 92       |
| 104) Di-n-octylphthalate       | 13.467 | 149  | 2886457  | 169.0753 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.867 | 252  | 2524019m | 189.1025 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.899 | 252  | 2251771m | 174.3642 | ng    |          |
| 107) Benzo[a]pyrene            | 14.215 | 252  | 2372366  | 187.3786 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.539 | 276  | 2584440  | 205.6211 | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.566 | 278  | 2143717  | 175.9457 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.903 | 276  | 2160605  | 206.3428 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : CAL BNA@0.5PPM  
Data File: 7M95176.D  
Acq On : 10/ 8/18 15:50

Operator : AH/JB  
Sam Mult : 1 Vial# : 9  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/08/18 16:14  
Qt Upd On: 10/07/18 16:40

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.510  | 96   | 80950    | 40.00 | ng    | 0.05     |
| 21) 1,4-Dichlorobenzene-d4 | 5.747  | 152  | 138488   | 40.00 | ng    | 0.04     |
| 31) Naphthalene-d8         | 6.762  | 136  | 512096   | 40.00 | ng    | 0.04     |
| 50) Acenaphthene-d10       | 8.172  | 164  | 294601   | 40.00 | ng    | 0.04     |
| 77) Phenanthrene-d10       | 9.615  | 188  | 507907   | 40.00 | ng    | 0.04     |
| 91) Chrysene-d12           | 12.644 | 240  | 480570   | 40.00 | ng    | 0.02     |
| 103) Perylene-d12          | 14.262 | 264  | 416727   | 40.00 | ng    | 0.03     |

## System Monitoring Compounds

|                          |       |     |          |      |       |  |
|--------------------------|-------|-----|----------|------|-------|--|
| 11) 2-Fluorophenol       | 0.000 | 112 | 0        | 0.00 | ng    |  |
| Spiked Amount 100.000    |       |     | Recovery | =    | 0.00% |  |
| 16) Phenol-d5            | 0.000 | 99  | 0d       | 0.00 | ng    |  |
| Spiked Amount 100.000    |       |     | Recovery | =    | 0.00% |  |
| 32) Nitrobenzene-d5      | 0.000 | 128 | 0        | 0.00 | ng    |  |
| Spiked Amount 50.000     |       |     | Recovery | =    | 0.00% |  |
| 55) 2-Fluorobiphenyl     | 0.000 | 172 | 0d       | 0.00 | ng    |  |
| Spiked Amount 50.000     |       |     | Recovery | =    | 0.00% |  |
| 80) 2,4,6-Tribromophenol | 0.000 | 330 | 0        | 0.00 | ng    |  |
| Spiked Amount 100.000    |       |     | Recovery | =    | 0.00% |  |
| 94) Terphenyl-d14        | 0.000 | 244 | 0d       | 0.00 | ng    |  |
| Spiked Amount 50.000     |       |     | Recovery | =    | 0.00% |  |

## Target Compounds

|                                | R.T.  | QIon | Response | Conc   | Units | Qvalue |
|--------------------------------|-------|------|----------|--------|-------|--------|
| 8) 1,4-Dioxane                 | 2.552 | 88   | 718m     | 0.3881 | ng    |        |
| 9) Pyridine                    | 0.000 |      | 0        | N.D.   | d     |        |
| 10) N-Nitrosodimethylamine     | 0.000 |      | 0        | N.D.   | d     |        |
| 12) Benzaldehyde               | 0.000 |      | 0        | N.D.   | d     |        |
| 13) Aniline                    | 5.464 | 93   | 2447m    | 0.3194 | ng    |        |
| 14) Pentachloroethane          | 0.000 |      | 0        | N.D.   | d     |        |
| 15) bis(2-Chloroethyl)ether    | 5.523 | 93   | 2550     | 0.5388 | ng    | 81     |
| 17) Phenol                     | 0.000 |      | 0        | N.D.   | d     |        |
| 18) 2-Chlorophenol             | 0.000 |      | 0        | N.D.   | d     |        |
| 19) N-Decane                   | 0.000 |      | 0        | N.D.   | d     |        |
| 20) 1,3-Dichlorobenzene        | 0.000 |      | 0        | N.D.   | d     |        |
| 22) 1,4-Dichlorobenzene        | 0.000 |      | 0        | N.D.   | d     |        |
| 23) 1,2-Dichlorobenzene        | 0.000 |      | 0        | N.D.   | d     |        |
| 24) Benzyl alcohol             | 0.000 |      | 0        | N.D.   | d     |        |
| 25) bis(2-chloroisopropyl)...  | 0.000 |      | 0        | N.D.   | d     |        |
| 26) 2-Methylphenol             | 5.950 | 108  | 2317     | 0.5336 | ng    | 95     |
| 27) Acetophenone               | 0.000 |      | 0        | N.D.   | d     |        |
| 28) Hexachloroethane           | 0.000 |      | 0        | N.D.   | d     |        |
| 29) N-Nitroso-di-n-propyla...  | 6.078 | 70   | 1608     | 0.3189 | ng    | 85     |
| 30) 3&4-Methylphenol           | 6.073 | 108  | 2319     | 0.4307 | ng    | 100    |
| 33) Nitrobenzene               | 0.000 |      | 0        | N.D.   | d     |        |
| 34) Isophorone                 | 0.000 |      | 0        | N.D.   | d     |        |
| 35) 2-Nitrophenol              | 0.000 |      | 0        | N.D.   | d     |        |
| 36) 2,4-Dimethylphenol         | 6.490 | 107  | 2242     | 0.4045 | ng    | 98     |
| 37) Benzoic Acid               | 0.000 |      | 0        | N.D.   | d     |        |
| 38) bis(2-Chloroethoxy)met...  | 0.000 |      | 0        | N.D.   | d     |        |
| 39) 2,4-Dichlorophenol         | 6.644 | 162  | 1744     | 0.4435 | ng    | 92     |
| 40) 1,2,4-Trichlorobenzene     | 0.000 |      | 0        | N.D.   | d     |        |
| 41) Naphthalene                | 6.778 | 128  | 8097     | 0.5849 | ng    | 97     |
| 42) 4-Chloroaniline            | 6.810 | 127  | 1975     | 0.3955 | ng    | 86     |
| 43) Hexachlorobutadiene        | 0.000 |      | 0        | N.D.   | d     |        |
| 44) Caprolactam                | 0.000 |      | 0        | N.D.   | d     |        |
| 45) 4-Chloro-3-methylphenol    | 0.000 |      | 0        | N.D.   | d     |        |
| 46) 2-Methylnaphthalene        | 0.000 |      | 0        | N.D.   | d     |        |
| 47) 1-Methylnaphthalene        | 0.000 |      | 0        | N.D.   | d     |        |
| 48) Methylnaphthalenes (To...  | 0.000 |      | 0        | N.D.   | d     |        |
| 49) 1,1'-Biphenyl              | 0.000 |      | 0        | N.D.   | d     |        |
| 51) 1,2,4,5-Tetrachloroben...  | 0.000 |      | 0        | N.D.   | d     |        |
| 52) Hexachlorocyclopentadiene  | 0.000 |      | 0        | N.D.   | d     |        |
| 53) 2,4,6-Trichlorophenol      | 0.000 |      | 0        | N.D.   | d     |        |
| 54) 2,4,5-Trichlorophenol      | 0.000 |      | 0        | N.D.   | d     |        |
| 56) 2-Chloronaphthalene        | 0.000 |      | 0        | N.D.   | d     |        |
| 57) 1,4-Dimethylnaphthalene    | 0.000 |      | 0        | N.D.   | d     |        |
| 58) Dimethylnaphthalenes (...) | 0.000 |      | 0        | N.D.   | d     |        |
| 59) Diphenyl Ether             | 0.000 |      | 0        | N.D.   | d     |        |
| 60) 2-Nitroaniline             | 0.000 |      | 0        | N.D.   | d     |        |
| 61) Coumarin                   | 0.000 |      | 0        | N.D.   | d     |        |
| 62) Acenaphthylene             | 0.000 |      | 0        | N.D.   | d     |        |
| 63) Dimethylphthalate          | 0.000 |      | 0        | N.D.   | d     |        |
| 64) 2,6-Dinitrotoluene         | 0.000 |      | 0        | N.D.   | d     |        |
| 65) Acenaphthene               | 0.000 |      | 0        | N.D.   | d     |        |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@0.5PPM

Operator : AH/JB

Qt Meth : 7M\_1008.M

Data File: 7M95176.D

Sam Mult : 1 Vial# : 9

Qt On : 10/08/18 16:14

Acq On : 10/ 8/18 15:50

Misc : A,BNA

Qt Upd On: 10/07/18 16:40

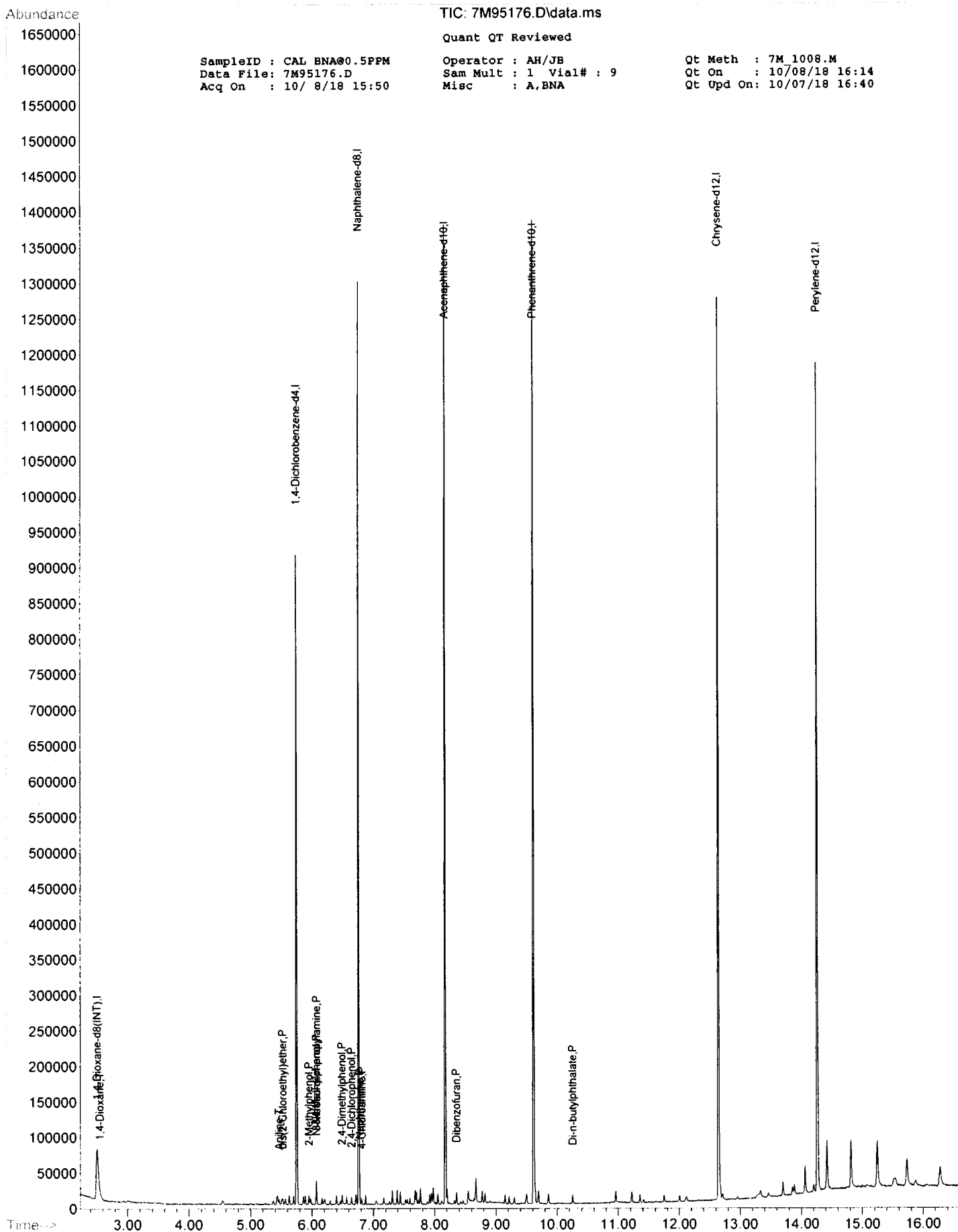
Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-08-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\

Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 66) 3-Nitroaniline             | 0.000  |      | 0        | N.D.   | d     |          |
| 67) 2,4-Dinitrophenol          | 0.000  |      | 0        | N.D.   |       |          |
| 68) Dibenzofuran               | 8.354  | 168  | 6544     | 0.5444 | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 0.000  |      | 0        | N.D.   | d     |          |
| 70) 4-Nitrophenol              | 0.000  |      | 0        | N.D.   | d     |          |
| 71) 2,3,4,6-Tetrachlorophenol  | 0.000  |      | 0        | N.D.   | d     |          |
| 72) Fluorene                   | 0.000  |      | 0        | N.D.   | d     |          |
| 73) 4-Chlorophenyl-phenyle...  | 0.000  |      | 0        | N.D.   | d     |          |
| 74) Diethylphthalate           | 0.000  |      | 0        | N.D.   | d     |          |
| 75) 4-Nitroaniline             | 0.000  |      | 0        | N.D.   | d     |          |
| 76) Atrazine                   | 0.000  |      | 0        | N.D.   | d     |          |
| 78) 4,6-Dinitro-2-methylph...  | 0.000  |      | 0        | N.D.   |       |          |
| 79) n-Nitrosodiphenylamine     | 0.000  |      | 0        | N.D.   | d     |          |
| 81) 1,2-Diphenylhydrazine      | 0.000  |      | 0        | N.D.   | d     |          |
| 82) 4-Bromophenyl-phenylether  | 0.000  |      | 0        | N.D.   | d     |          |
| 83) Hexachlorobenzene          | 0.000  |      | 0        | N.D.   | d     |          |
| 84) N-Octadecane               | 0.000  |      | 0        | N.D.   | d     |          |
| 85) Pentachlorophenol          | 0.000  |      | 0        | N.D.   | d     |          |
| 86) Phenanthrene               | 0.000  |      | 0        | N.D.   | d     |          |
| 87) Anthracene                 | 0.000  |      | 0        | N.D.   | d     |          |
| 88) Carbazole                  | 0.000  |      | 0        | N.D.   | d     |          |
| 89) Di-n-butylphthalate        | 10.256 | 149  | 6668     | 0.3583 | ng    | 96       |
| 90) Fluoranthene               | 0.000  |      | 0        | N.D.   | d     |          |
| 92) Pyrene                     | 0.000  |      | 0        | N.D.   | d     |          |
| 93) Benzidine                  | 0.000  |      | 0        | N.D.   | d     |          |
| 95) 4,4'-DDE                   | 0.000  |      | 0        | N.D.   | d     |          |
| 96) 4,4'-DDD                   | 0.000  |      | 0        | N.D.   | d     |          |
| 97) Butylbenzylphthalate       | 0.000  |      | 0        | N.D.   | d     |          |
| 98) 4,4'-DDT                   | 0.000  |      | 0        | N.D.   | d     |          |
| 99) 3,3'-Dichlorobenzidine     | 0.000  |      | 0        | N.D.   | d     |          |
| 100) Benzo[a]anthracene        | 0.000  |      | 0        | N.D.   | d     |          |
| 101) Chrysene                  | 0.000  |      | 0        | N.D.   | d     |          |
| 102) bis(2-Ethylhexyl)phtha... | 0.000  |      | 0        | N.D.   | d     |          |
| 104) Di-n-octylphthalate       | 0.000  |      | 0        | N.D.   | d     |          |
| 105) Benzo[b]fluoranthene      | 0.000  |      | 0        | N.D.   | d     |          |
| 106) Benzo[k]fluoranthene      | 0.000  |      | 0        | N.D.   | d     |          |
| 107) Benzo[a]pyrene            | 0.000  |      | 0        | N.D.   | d     |          |
| 108) Indeno[1,2,3-cd]pyrene    | 0.000  |      | 0        | N.D.   | d     |          |
| 109) Dibenzo[a,h]anthracene    | 0.000  |      | 0        | N.D.   | d     |          |
| 110) Benzo[g,h,i]perylene      | 0.000  |      | 0        | N.D.   | d     |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



| Compound                    | bytCol<br>Num: | bytMr<br>Num: | Type | sngConc: | Exp<br>Conc | Rec | Flag | sngLoLim: | sngHiLim: |
|-----------------------------|----------------|---------------|------|----------|-------------|-----|------|-----------|-----------|
| 1,4-Dioxane                 | 1              | 0             |      | 51.4668  | 50          | 103 |      | 70        | 130       |
| Pyridine                    | 1              | 0             |      | 52.259   | 50          | 105 |      | 50        | 150       |
| N-Nitrosodimethylamine      | 1              | 0             |      | 48.9708  | 50          | 98  |      | 70        | 130       |
| Benzaldehyde                | 1              | 0             |      | 55.4946  | 50          | 111 |      | 50        | 150       |
| Aniline                     | 1              | 0             |      | 54.5775  | 50          | 109 |      | 50        | 150       |
| Pentachloroethane           | 1              | 0             |      | 44.7698  | 50          | 90  |      | 70        | 130       |
| bis(2-Chloroethyl)ether     | 1              | 0             |      | 47.7301  | 50          | 95  |      | 70        | 130       |
| Phenol                      | 1              | 0             |      | 50.9419  | 50          | 102 |      | 70        | 130       |
| 2-Chlorophenol              | 1              | 0             |      | 48.4264  | 50          | 97  |      | 70        | 130       |
| 1,3-Dichlorobenzene         | 1              | 0             |      | 50.252   | 50          | 101 |      | 70        | 130       |
| 1,4-Dichlorobenzene         | 1              | 0             |      | 47.078   | 50          | 94  |      | 70        | 130       |
| 1,2-Dichlorobenzene         | 1              | 0             |      | 46.4331  | 50          | 93  |      | 70        | 130       |
| Benzyl alcohol              | 1              | 0             |      | 49.6557  | 50          | 99  |      | 70        | 130       |
| bis(2-chloroisopropyl)ether | 1              | 0             |      | 50.7678  | 50          | 102 |      | 70        | 130       |
| 2-Methylphenol              | 1              | 0             |      | 47.8923  | 50          | 96  |      | 70        | 130       |
| Acetophenone                | 1              | 0             |      | 57.7012  | 50          | 115 |      | 70        | 130       |
| Hexachloroethane            | 1              | 0             |      | 49.4969  | 50          | 99  |      | 70        | 130       |
| N-Nitroso-di-n-propylamine  | 1              | 0             |      | 51.7346  | 50          | 103 |      | 70        | 130       |
| 3,4-Methylphenol            | 1              | 0             |      | 52.4486  | 50          | 105 |      | 70        | 130       |
| Nitrobenzene                | 1              | 0             |      | 49.0439  | 50          | 98  |      | 70        | 130       |
| Isophorone                  | 1              | 0             |      | 50.3672  | 50          | 101 |      | 70        | 130       |
| 2-Nitrophenol               | 1              | 0             |      | 50.2522  | 50          | 101 |      | 70        | 130       |
| 2,4-Dimethylphenol          | 1              | 0             |      | 46.529   | 50          | 93  |      | 70        | 130       |
| Benzoic Acid                | 1              | 0             |      | 39.8333  | 50          | 80  |      | 70        | 130       |
| bis(2-Chloroethoxy)methane  | 1              | 0             |      | 47.1075  | 50          | 94  |      | 70        | 130       |
| 2,4-Dichlorophenol          | 1              | 0             |      | 48.2222  | 50          | 96  |      | 70        | 130       |
| 1,2,4-Trichlorobenzene      | 1              | 0             |      | 48.648   | 50          | 97  |      | 70        | 130       |
| Naphthalene                 | 1              | 0             |      | 49.0863  | 50          | 98  |      | 70        | 130       |
| 4-Chloroaniline             | 1              | 0             |      | 58.7346  | 50          | 117 |      | 50        | 150       |
| Hexachlorobutadiene         | 1              | 0             |      | 48.2677  | 50          | 97  |      | 70        | 130       |
| Caprolactam                 | 1              | 0             |      | 56.4717  | 50          | 113 |      | 70        | 130       |
| 4-Chloro-3-methylphenol     | 1              | 0             |      | 50.3804  | 50          | 101 |      | 70        | 130       |
| 2-Methylnaphthalene         | 1              | 0             |      | 51.2824  | 50          | 103 |      | 70        | 130       |
| 1-Methylnaphthalene         | 1              | 0             |      | 98.7855  | 100         | 99  |      | 70        | 130       |
| 1,1'-Biophenyl              | 1              | 0             |      | 43.9331  | 50          | 88  |      | 70        | 130       |
| 1,2,4,5-Tetrachlorobenzene  | 1              | 0             |      | 54.4212  | 50          | 109 |      | 70        | 130       |
| Hexachlorocyclopentadiene   | 1              | 0             |      | 53.6628  | 50          | 107 |      | 70        | 130       |
| 2,4,6-Trichlorophenol       | 1              | 0             |      | 50.782   | 50          | 102 |      | 70        | 130       |
| 2,4,5-Trichlorophenol       | 1              | 0             |      | 46.282   | 50          | 93  |      | 70        | 130       |
| 2-Chloronaphthalene         | 1              | 0             |      | 49.9814  | 50          | 100 |      | 70        | 130       |
| 1,4-Dimethylnaphthalene     | 1              | 0             |      | 45.6665  | 50          | 91  |      | 70        | 130       |
| Diohenyl Ether              | 1              | 0             |      | 56.0516  | 50          | 112 |      | 70        | 130       |
| 2-Nitroaniline              | 1              | 0             |      | 50.9477  | 50          | 102 |      | 70        | 130       |
| Acenaphthylene              | 1              | 0             |      | 52.1734  | 50          | 104 |      | 70        | 130       |
| Dimethylphthalate           | 1              | 0             |      | 48.1165  | 50          | 96  |      | 70        | 130       |
| 2,6-Dinitrotoluene          | 1              | 0             |      | 51.386   | 50          | 103 |      | 70        | 130       |
| Acenaphthene                | 1              | 0             |      | 47.7432  | 50          | 95  |      | 70        | 130       |
| 3-Nitroaniline              | 1              | 0             |      | 46.9825  | 50          | 94  |      | 70        | 130       |
| 2,4-Dinitrophenol           | 1              | 0             |      | 47.6929  | 50          | 95  |      | 70        | 130       |
| Dibenzofuran                | 1              | 0             |      | 45.7083  | 50          | 91  |      | 70        | 130       |
| 2,4-Dinitrotoluene          | 1              | 0             |      | 43.4551  | 50          | 87  |      | 70        | 130       |
| 4-Nitrophenol               | 1              | 0             |      | 41.2325  | 50          | 82  |      | 70        | 130       |
| 2,3,4,6-Tetrachlorophenol   | 1              | 0             |      | 46.4572  | 50          | 93  |      | 70        | 130       |
| Fluorene                    | 1              | 0             |      | 48.2485  | 50          | 96  |      | 70        | 130       |
| 4-Chlorophenyl-phenylether  | 1              | 0             |      | 46.1471  | 50          | 92  |      | 70        | 130       |
| Diethylphthalate            | 1              | 0             |      | 46.3645  | 50          | 93  |      | 70        | 130       |
| 4-Nitroaniline              | 1              | 0             |      | 48.1837  | 50          | 96  |      | 70        | 130       |
| Atrazine                    | 1              | 0             |      | 53.5459  | 50          | 107 |      | 70        | 130       |
| 4,6-Dinitro-2-methylphenol  | 1              | 0             |      | 53.2635  | 50          | 107 |      | 70        | 130       |
| n-Nitrosodiphenylamine      | 1              | 0             |      | 48.574   | 50          | 97  |      | 70        | 130       |
| 1,2-Diphenylhydrazine       | 1              | 0             |      | 47.8874  | 50          | 96  |      | 70        | 130       |
| 4-Bromophenyl-phenylether   | 1              | 0             |      | 50.9105  | 50          | 102 |      | 70        | 130       |
| Hexachlorobenzene           | 1              | 0             |      | 48.9094  | 50          | 98  |      | 70        | 130       |
| Pentachlorophenol           | 1              | 0             |      | 41.6395  | 50          | 83  |      | 70        | 130       |
| Phenanthrene                | 1              | 0             |      | 49.6542  | 50          | 99  |      | 70        | 130       |
| Anthracene                  | 1              | 0             |      | 49.6683  | 50          | 99  |      | 70        | 130       |
| Carbazole                   | 1              | 0             |      | 49.4302  | 50          | 99  |      | 70        | 130       |
| Di-n-butylphthalate         | 1              | 0             |      | 44.2218  | 50          | 88  |      | 70        | 130       |
| Fluoranthene                | 1              | 0             |      | 50.2506  | 50          | 101 |      | 70        | 130       |
| Pvrene                      | 1              | 0             |      | 46.4769  | 50          | 93  |      | 70        | 130       |
| Benzidine                   | 1              | 0             |      | 57.1102  | 50          | 114 |      | 50        | 150       |
| Butylbenzylphthalate        | 1              | 0             |      | 47.9084  | 50          | 96  |      | 70        | 130       |
| 3,3'-Dichlorobenzidine      | 1              | 0             |      | 45.0962  | 50          | 90  |      | 50        | 150       |
| Benzofalanthracene          | 1              | 0             |      | 45.6564  | 50          | 91  |      | 70        | 130       |
| Chrysene                    | 1              | 0             |      | 46.4332  | 50          | 93  |      | 70        | 130       |
| bis(2-Ethylhexyl)phthalate  | 1              | 0             |      | 45.2971  | 50          | 91  |      | 70        | 130       |
| Di-n-octylphthalate         | 1              | 0             |      | 45.7512  | 50          | 92  |      | 70        | 130       |
| Benzobifluoranthene         | 1              | 0             |      | 49.7677  | 50          | 100 |      | 70        | 130       |
| Benzokifluoranthene         | 1              | 0             |      | 47.8789  | 50          | 96  |      | 70        | 130       |
| Benzofalovrene              | 1              | 0             |      | 48.2138  | 50          | 96  |      | 70        | 130       |
| Indeno[1,2,3-cd]povrene     | 1              | 0             |      | 49.1008  | 50          | 98  |      | 70        | 130       |
| Dibenzofalanthracene        | 1              | 0             |      | 50.515   | 50          | 101 |      | 70        | 130       |
| Benzofalilpervlene          | 1              | 0             |      | 49.0606  | 50          | 98  |      | 70        | 130       |

| Compound                    | bytCol<br>Num: | bytMr<br>Num: | Type | sngConc: | Exp<br>Conc | Rec | Flag | sngLoLim: | sngHiLim: |
|-----------------------------|----------------|---------------|------|----------|-------------|-----|------|-----------|-----------|
| 1,4-Dioxane                 | 1              | 0             |      | 59.3533  | 50          | 119 |      | 70        | 130       |
| Pvridine                    | 1              | 0             |      | 54.1245  | 50          | 108 |      | 50        | 150       |
| N-Nitrosodimethylamine      | 1              | 0             |      | 53.9846  | 50          | 108 |      | 70        | 130       |
| Benzaldehyd                 | 1              | 0             |      | 49.7228  | 50          | 99  |      | 50        | 150       |
| Aniline                     | 1              | 0             |      | 53.7967  | 50          | 108 |      | 50        | 150       |
| Pentachloroethane           | 1              | 0             |      | 45.8888  | 50          | 92  |      | 70        | 130       |
| bis(2-Chloroethyl)ether     | 1              | 0             |      | 50.4534  | 50          | 101 |      | 70        | 130       |
| Phenol                      | 1              | 0             |      | 50.4839  | 50          | 101 |      | 70        | 130       |
| 2-Chlorophenol              | 1              | 0             |      | 50.8063  | 50          | 102 |      | 70        | 130       |
| 1,3-Dichlorobenzene         | 1              | 0             |      | 51.1665  | 50          | 102 |      | 70        | 130       |
| 1,4-Dichlorobenzene         | 1              | 0             |      | 49.7361  | 50          | 99  |      | 70        | 130       |
| 1,2-Dichlorobenzene         | 1              | 0             |      | 51.7096  | 50          | 103 |      | 70        | 130       |
| Benzyl alcohol              | 1              | 0             |      | 52.2288  | 50          | 104 |      | 70        | 130       |
| bis(2-chloroisopropyl)ether | 1              | 0             |      | 51.0273  | 50          | 102 |      | 70        | 130       |
| 2-Methylphenol              | 1              | 0             |      | 51.3344  | 50          | 103 |      | 70        | 130       |
| Acetophenone                | 1              | 0             |      | 57.9681  | 50          | 116 |      | 70        | 130       |
| Hexachloroethane            | 1              | 0             |      | 49.6171  | 50          | 99  |      | 70        | 130       |
| N-Nitroso-di-n-propylamine  | 1              | 0             |      | 49.577   | 50          | 99  |      | 70        | 130       |
| 3,4-Methylphenol            | 1              | 0             |      | 49.7829  | 50          | 100 |      | 70        | 130       |
| Nitrobenzene                | 1              | 0             |      | 50.1882  | 50          | 100 |      | 70        | 130       |
| Isophorone                  | 1              | 0             |      | 52.8078  | 50          | 106 |      | 70        | 130       |
| 2-Nitrophenol               | 1              | 0             |      | 51.283   | 50          | 103 |      | 70        | 130       |
| 2,4-Dimethylphenol          | 1              | 0             |      | 47.6453  | 50          | 95  |      | 70        | 130       |
| Benzoic Acid                | 1              | 0             |      | 36.4874  | 50          | 73  |      | 70        | 130       |
| bis(2-Chloroethoxy)methane  | 1              | 0             |      | 49.1327  | 50          | 98  |      | 70        | 130       |
| 2,4-Dichlorophenol          | 1              | 0             |      | 50.6285  | 50          | 101 |      | 70        | 130       |
| 1,2,4-Trichlorobenzene      | 1              | 0             |      | 48.7759  | 50          | 98  |      | 70        | 130       |
| Naphthalene                 | 1              | 0             |      | 49.6642  | 50          | 99  |      | 70        | 130       |
| 4-Chloroaniline             | 1              | 0             |      | 55.3812  | 50          | 111 |      | 50        | 150       |
| Hexachlorobutadiene         | 1              | 0             |      | 49.6399  | 50          | 99  |      | 70        | 130       |
| Caprolactam                 | 1              | 0             |      | 53.1664  | 50          | 106 |      | 70        | 130       |
| 4-Chloro-3-methylphenol     | 1              | 0             |      | 50.7167  | 50          | 101 |      | 70        | 130       |
| 2-Methylnaphthalene         | 1              | 0             |      | 53.2273  | 50          | 106 |      | 70        | 130       |
| 1-Methylnaphthalene         | 1              | 0             |      | 109.7703 | 100         | 110 |      | 70        | 130       |
| 1,1'-Biophenyl              | 1              | 0             |      | 47.021   | 50          | 94  |      | 70        | 130       |
| 1,2,4,5-Tetrachlorobenzene  | 1              | 0             |      | 54.2904  | 50          | 109 |      | 70        | 130       |
| Hexachlorocyclopentadiene   | 1              | 0             |      | 56.2755  | 50          | 113 |      | 70        | 130       |
| 2,4,6-Trichlorophenol       | 1              | 0             |      | 49.4801  | 50          | 99  |      | 70        | 130       |
| 2,4,5-Trichlorophenol       | 1              | 0             |      | 51.2639  | 50          | 103 |      | 70        | 130       |
| 2-Chloronaphthalene         | 1              | 0             |      | 49.6404  | 50          | 99  |      | 70        | 130       |
| 1,4-Dimethylnaphthalene     | 1              | 0             |      | 50.9786  | 50          | 102 |      | 70        | 130       |
| Diphenyl Ether              | 1              | 0             |      | 57.1354  | 50          | 114 |      | 70        | 130       |
| 2-Nitroaniline              | 1              | 0             |      | 50.2821  | 50          | 101 |      | 70        | 130       |
| Acenaphthylene              | 1              | 0             |      | 55.6911  | 50          | 111 |      | 70        | 130       |
| Dimethylnaphthalene         | 1              | 0             |      | 50.4142  | 50          | 101 |      | 70        | 130       |
| 2,6-Dinitrotoluene          | 1              | 0             |      | 50.7318  | 50          | 101 |      | 70        | 130       |
| Acenaphthene                | 1              | 0             |      | 51.6014  | 50          | 103 |      | 70        | 130       |
| 3-Nitroaniline              | 1              | 0             |      | 49.7332  | 50          | 99  |      | 70        | 130       |
| 2,4-Dinitrophenol           | 1              | 0             |      | 46.6904  | 50          | 93  |      | 70        | 130       |
| Dibenzofuran                | 1              | 0             |      | 48.4955  | 50          | 97  |      | 70        | 130       |
| 2,4-Dinitrotoluene          | 1              | 0             |      | 47.8013  | 50          | 96  |      | 70        | 130       |
| 4-Nitrophenol               | 1              | 0             |      | 47.2323  | 50          | 94  |      | 70        | 130       |
| 2,3,4,6-Tetrachlorophenol   | 1              | 0             |      | 46.8993  | 50          | 94  |      | 70        | 130       |
| Fluorene                    | 1              | 0             |      | 52.4011  | 50          | 105 |      | 70        | 130       |
| 4-Chlorophenyl-phenylether  | 1              | 0             |      | 50.0193  | 50          | 100 |      | 70        | 130       |
| Diethylnaphthalene          | 1              | 0             |      | 49.1952  | 50          | 98  |      | 70        | 130       |
| 4-Nitroaniline              | 1              | 0             |      | 49.082   | 50          | 98  |      | 70        | 130       |
| Atrazine                    | 1              | 0             |      | 60.6311  | 50          | 121 |      | 70        | 130       |
| 4,6-Dinitro-2-methylphenol  | 1              | 0             |      | 51.1379  | 50          | 102 |      | 70        | 130       |
| n-Nitrosodiphenylamine      | 1              | 0             |      | 49.7536  | 50          | 100 |      | 70        | 130       |
| 1,2-Diphenylhydrazine       | 1              | 0             |      | 50.1854  | 50          | 100 |      | 70        | 130       |
| 4-Bromophenyl-phenylether   | 1              | 0             |      | 51.5012  | 50          | 103 |      | 70        | 130       |
| Hexachlorobenzene           | 1              | 0             |      | 50.6266  | 50          | 101 |      | 70        | 130       |
| Pentachlorophenol           | 1              | 0             |      | 44.8725  | 50          | 90  |      | 70        | 130       |
| Phenanthrene                | 1              | 0             |      | 49.7203  | 50          | 99  |      | 70        | 130       |
| Anthracene                  | 1              | 0             |      | 51.4172  | 50          | 103 |      | 70        | 130       |
| Carbazole                   | 1              | 0             |      | 51.3588  | 50          | 103 |      | 70        | 130       |
| Di-n-butylphthalate         | 1              | 0             |      | 46.885   | 50          | 94  |      | 70        | 130       |
| Fluoranthene                | 1              | 0             |      | 51.2439  | 50          | 102 |      | 70        | 130       |
| Pvrene                      | 1              | 0             |      | 50.3488  | 50          | 101 |      | 70        | 130       |
| Benzydine                   | 1              | 0             |      | 63.9769  | 50          | 128 |      | 50        | 150       |
| Butylbenzylphthalate        | 1              | 0             |      | 49.039   | 50          | 98  |      | 70        | 130       |
| 3,3'-Dichlorobenzidine      | 1              | 0             |      | 45.2724  | 50          | 91  |      | 50        | 150       |
| Benzo(a)anthracene          | 1              | 0             |      | 50.0775  | 50          | 100 |      | 70        | 130       |
| Chrysene                    | 1              | 0             |      | 51.0665  | 50          | 102 |      | 70        | 130       |
| bis(2-Ethylhexyl)phthalate  | 1              | 0             |      | 45.6343  | 50          | 91  |      | 70        | 130       |
| Di-n-octylphthalate         | 1              | 0             |      | 48.0704  | 50          | 96  |      | 70        | 130       |
| Benzo(b)fluoranthene        | 1              | 0             |      | 50.9607  | 50          | 102 |      | 70        | 130       |
| Benzo(k)fluoranthene        | 1              | 0             |      | 51.859   | 50          | 104 |      | 70        | 130       |
| Benzo(a)pyrene              | 1              | 0             |      | 50.8246  | 50          | 102 |      | 70        | 130       |
| Indeno(1,2,3-cd)pyrene      | 1              | 0             |      | 46.8882  | 50          | 94  |      | 70        | 130       |
| Dibenzo(a,h)anthracene      | 1              | 0             |      | 45.2331  | 50          | 90  |      | 70        | 130       |
| Benzo(a,h,i)perylene        | 1              | 0             |      | 44.7686  | 50          | 90  |      | 70        | 130       |

| Compound                    | bytCol<br>Num: | bytMr<br>Num: | Type | sngConc: | Exp<br>Conc | Rec | Flag | sngLoLim: | sngHiLim: |
|-----------------------------|----------------|---------------|------|----------|-------------|-----|------|-----------|-----------|
| 1,4-Dioxane                 | 1              | 0             |      | 52.6384  | 50          | 105 |      | 70        | 130       |
| Pyridine                    | 1              | 0             |      | 52.9388  | 50          | 106 |      | 50        | 150       |
| N-Nitrosodimethylamine      | 1              | 0             |      | 51.4193  | 50          | 103 |      | 70        | 130       |
| Benzaldehyde                | 1              | 0             |      | 45.6675  | 50          | 91  |      | 50        | 150       |
| Aniline                     | 1              | 0             |      | 61.3826  | 50          | 123 |      | 50        | 150       |
| Pentachloroethane           | 1              | 0             |      | 48.1069  | 50          | 96  |      | 70        | 130       |
| bis(2-Chloroethyl)ether     | 1              | 0             |      | 52.4571  | 50          | 105 |      | 70        | 130       |
| Phenol                      | 1              | 0             |      | 52.9981  | 50          | 106 |      | 70        | 130       |
| 2-Chlorophenol              | 1              | 0             |      | 52.8029  | 50          | 106 |      | 70        | 130       |
| 1,3-Dichlorobenzene         | 1              | 0             |      | 52.5815  | 50          | 105 |      | 70        | 130       |
| 1,4-Dichlorobenzene         | 1              | 0             |      | 52.3868  | 50          | 105 |      | 70        | 130       |
| 1,2-Dichlorobenzene         | 1              | 0             |      | 52.8745  | 50          | 106 |      | 70        | 130       |
| Benzyl alcohol              | 1              | 0             |      | 52.3911  | 50          | 105 |      | 70        | 130       |
| bis(2-chloroisopropyl)ether | 1              | 0             |      | 53.5524  | 50          | 107 |      | 70        | 130       |
| 2-Methylphenol              | 1              | 0             |      | 51.8557  | 50          | 104 |      | 70        | 130       |
| Acetophenone                | 1              | 0             |      | 54.8365  | 50          | 110 |      | 70        | 130       |
| Hexachloroethane            | 1              | 0             |      | 52.4016  | 50          | 105 |      | 70        | 130       |
| N-Nitroso-di-n-propylamine  | 1              | 0             |      | 53.315   | 50          | 107 |      | 70        | 130       |
| 3,4-Methylphenol            | 1              | 0             |      | 54.8233  | 50          | 110 |      | 70        | 130       |
| Nitrobenzene                | 1              | 0             |      | 52.3013  | 50          | 105 |      | 70        | 130       |
| Isophorone                  | 1              | 0             |      | 54.4178  | 50          | 109 |      | 70        | 130       |
| 2-Nitrophenol               | 1              | 0             |      | 53.0312  | 50          | 106 |      | 70        | 130       |
| 2,4-Dimethylphenol          | 1              | 0             |      | 52.1434  | 50          | 104 |      | 70        | 130       |
| Benzoic Acid                | 1              | 0             |      | 44.7556  | 50          | 90  |      | 70        | 130       |
| bis(2-Chloroethoxy)methane  | 1              | 0             |      | 52.1897  | 50          | 104 |      | 70        | 130       |
| 2,4-Dichlorophenol          | 1              | 0             |      | 53.723   | 50          | 107 |      | 70        | 130       |
| 1,2,4-Trichlorobenzene      | 1              | 0             |      | 51.7061  | 50          | 103 |      | 70        | 130       |
| Naphthalene                 | 1              | 0             |      | 51.4069  | 50          | 103 |      | 70        | 130       |
| 4-Chloroaniline             | 1              | 0             |      | 55.2991  | 50          | 111 |      | 50        | 150       |
| Hexachlorobutadiene         | 1              | 0             |      | 52.3943  | 50          | 105 |      | 70        | 130       |
| Caprolactam                 | 1              | 0             |      | 54.4498  | 50          | 109 |      | 70        | 130       |
| 4-Chloro-3-methylphenol     | 1              | 0             |      | 52.5935  | 50          | 105 |      | 70        | 130       |
| 2-Methylnaphthalene         | 1              | 0             |      | 54.7131  | 50          | 109 |      | 70        | 130       |
| 1-Methylnaphthalene         | 1              | 0             |      | 106.1468 | 100         | 106 |      | 70        | 130       |
| 1,1'-Biophenyl              | 1              | 0             |      | 47.9985  | 50          | 96  |      | 70        | 130       |
| 1,2,4,5-Tetrachlorobenzene  | 1              | 0             |      | 54.4278  | 50          | 109 |      | 70        | 130       |
| Hexachlorocyclopentadiene   | 1              | 0             |      | 58.9801  | 50          | 118 |      | 70        | 130       |
| 2,4,6-Trichlorophenol       | 1              | 0             |      | 52.6013  | 50          | 105 |      | 70        | 130       |
| 2,4,5-Trichlorophenol       | 1              | 0             |      | 54.8719  | 50          | 110 |      | 70        | 130       |
| 2-Chloronaphthalene         | 1              | 0             |      | 53.0924  | 50          | 106 |      | 70        | 130       |
| 1,4-Dimethylnaphthalene     | 1              | 0             |      | 49.9212  | 50          | 100 |      | 70        | 130       |
| Diphenyl Ether              | 1              | 0             |      | 54.0463  | 50          | 108 |      | 70        | 130       |
| 2-Nitroaniline              | 1              | 0             |      | 55.143   | 50          | 110 |      | 70        | 130       |
| Acenaphthylene              | 1              | 0             |      | 57.4337  | 50          | 115 |      | 70        | 130       |
| Dimethylphthalate           | 1              | 0             |      | 53.1584  | 50          | 106 |      | 70        | 130       |
| 2,6-Dinitrotoluene          | 1              | 0             |      | 57.0097  | 50          | 114 |      | 70        | 130       |
| Acenaphthene                | 1              | 0             |      | 54.2619  | 50          | 109 |      | 70        | 130       |
| 3-Nitroaniline              | 1              | 0             |      | 58.9176  | 50          | 118 |      | 70        | 130       |
| 2,4-Dinitrophenol           | 1              | 0             |      | 52.3078  | 50          | 105 |      | 70        | 130       |
| Dibenzofuran                | 1              | 0             |      | 52.5652  | 50          | 105 |      | 70        | 130       |
| 2,4-Dinitrotoluene          | 1              | 0             |      | 52.4456  | 50          | 105 |      | 70        | 130       |
| 4-Nitrophenol               | 1              | 0             |      | 54.6938  | 50          | 109 |      | 70        | 130       |
| 2,3,4,6-Tetrachlorophenol   | 1              | 0             |      | 52.4355  | 50          | 105 |      | 70        | 130       |
| Fluorene                    | 1              | 0             |      | 55.2269  | 50          | 110 |      | 70        | 130       |
| 4-Chlorophenyl-phenylether  | 1              | 0             |      | 54.0852  | 50          | 108 |      | 70        | 130       |
| Diethylphthalate            | 1              | 0             |      | 52.9993  | 50          | 106 |      | 70        | 130       |
| 4-Nitroaniline              | 1              | 0             |      | 52.736   | 50          | 105 |      | 70        | 130       |
| Atrazine                    | 1              | 0             |      | 55.9951  | 50          | 112 |      | 70        | 130       |
| 4,6-Dinitro-2-methylphenol  | 1              | 0             |      | 56.9094  | 50          | 114 |      | 70        | 130       |
| n-Nitrosodiphenylamine      | 1              | 0             |      | 53.2396  | 50          | 106 |      | 70        | 130       |
| 1,2-Diphenylhydrazine       | 1              | 0             |      | 54.756   | 50          | 110 |      | 70        | 130       |
| 4-Bromophenyl-phenylether   | 1              | 0             |      | 52.7876  | 50          | 106 |      | 70        | 130       |
| Hexachlorobenzene           | 1              | 0             |      | 51.9031  | 50          | 104 |      | 70        | 130       |
| Pentachlorophenol           | 1              | 0             |      | 47.9137  | 50          | 96  |      | 70        | 130       |
| Phenanthrene                | 1              | 0             |      | 52.8     | 50          | 106 |      | 70        | 130       |
| Anthracene                  | 1              | 0             |      | 53.2876  | 50          | 107 |      | 70        | 130       |
| Carbazole                   | 1              | 0             |      | 52.8752  | 50          | 106 |      | 70        | 130       |
| Di-n-butylphthalate         | 1              | 0             |      | 54.5948  | 50          | 109 |      | 70        | 130       |
| Fluoranthene                | 1              | 0             |      | 53.3151  | 50          | 107 |      | 70        | 130       |
| Pyrene                      | 1              | 0             |      | 53.1225  | 50          | 106 |      | 70        | 130       |
| Benzidine                   | 1              | 0             |      | 56.2767  | 50          | 113 |      | 50        | 150       |
| Butylbenzylphthalate        | 1              | 0             |      | 50.5946  | 50          | 101 |      | 70        | 130       |
| 3,3'-Dichlorobenzidine      | 1              | 0             |      | 50.1718  | 50          | 100 |      | 50        | 150       |
| Benzo[a]anthracene          | 1              | 0             |      | 52.9904  | 50          | 106 |      | 70        | 130       |
| Chrysene                    | 1              | 0             |      | 52.5941  | 50          | 105 |      | 70        | 130       |
| bis(2-Ethylhexyl)phthalate  | 1              | 0             |      | 50.5671  | 50          | 101 |      | 70        | 130       |
| Di-n-octylphthalate         | 1              | 0             |      | 49.06    | 50          | 98  |      | 70        | 130       |
| Benzo[b]fluoranthene        | 1              | 0             |      | 52.5134  | 50          | 105 |      | 70        | 130       |
| Benzo[k]fluoranthene        | 1              | 0             |      | 53.3864  | 50          | 107 |      | 70        | 130       |
| Benzo[a]pyrene              | 1              | 0             |      | 53.272   | 50          | 107 |      | 70        | 130       |
| Indeno[1,2,3-cd]pyrene      | 1              | 0             |      | 52.2998  | 50          | 105 |      | 70        | 130       |
| Dibenzofluoranthene         | 1              | 0             |      | 52.1803  | 50          | 104 |      | 70        | 130       |
| Benzo[a]h. iloperylene      | 1              | 0             |      | 52.1189  | 50          | 104 |      | 70        | 130       |



| Compound                    | bytCol<br>Num: | bytMr<br>Num: | Type | sngConc: | Exp<br>Conc | Rec | Flag | sngLoLim: | sngHiLim: |
|-----------------------------|----------------|---------------|------|----------|-------------|-----|------|-----------|-----------|
| 1,4-Dioxane                 | 1              | 0             |      | 51.2417  | 50          | 102 |      | 70        | 130       |
| Pyridine                    | 1              | 0             |      | 52.1172  | 50          | 104 |      | 50        | 150       |
| N-Nitrosodimethylamine      | 1              | 0             |      | 52.228   | 50          | 104 |      | 70        | 130       |
| Benzaldehyde                | 1              | 0             |      | 51.8692  | 50          | 104 |      | 50        | 150       |
| Aniline                     | 1              | 0             |      | 62.1202  | 50          | 124 |      | 50        | 150       |
| Pentachloroethane           | 1              | 0             |      | 47.6535  | 50          | 95  |      | 70        | 130       |
| bis(2-Chloroethyl)ether     | 1              | 0             |      | 52.5108  | 50          | 105 |      | 70        | 130       |
| Phenol                      | 1              | 0             |      | 52.6073  | 50          | 105 |      | 70        | 130       |
| 2-Chlorophenol              | 1              | 0             |      | 51.5739  | 50          | 103 |      | 70        | 130       |
| 1,3-Dichlorobenzene         | 1              | 0             |      | 52.0096  | 50          | 104 |      | 70        | 130       |
| 1,4-Dichlorobenzene         | 1              | 0             |      | 50.3683  | 50          | 101 |      | 70        | 130       |
| 1,2-Dichlorobenzene         | 1              | 0             |      | 50.5405  | 50          | 101 |      | 70        | 130       |
| Benzyl alcohol              | 1              | 0             |      | 51.8036  | 50          | 104 |      | 70        | 130       |
| bis(2-chloroisopropyl)ether | 1              | 0             |      | 53.4383  | 50          | 107 |      | 70        | 130       |
| 2-Methylphenol              | 1              | 0             |      | 52.864   | 50          | 106 |      | 70        | 130       |
| Acetophenone                | 1              | 0             |      | 51.9241  | 50          | 104 |      | 70        | 130       |
| Hexachloroethane            | 1              | 0             |      | 50.4397  | 50          | 101 |      | 70        | 130       |
| N-Nitroso-di-n-propylamine  | 1              | 0             |      | 50.5595  | 50          | 101 |      | 70        | 130       |
| 3,4-Methylphenol            | 1              | 0             |      | 50.6628  | 50          | 101 |      | 70        | 130       |
| Nitrobenzene                | 1              | 0             |      | 51.2491  | 50          | 102 |      | 70        | 130       |
| Isophorone                  | 1              | 0             |      | 53.377   | 50          | 107 |      | 70        | 130       |
| 2-Nitrophenol               | 1              | 0             |      | 51.7496  | 50          | 103 |      | 70        | 130       |
| 2,4-Dimethylphenol          | 1              | 0             |      | 50.9888  | 50          | 102 |      | 70        | 130       |
| Benzoic Acid                | 1              | 0             |      | 43.6392  | 50          | 87  |      | 70        | 130       |
| bis(2-Chloroethoxy)methane  | 1              | 0             |      | 51.251   | 50          | 103 |      | 70        | 130       |
| 2,4-Dichlorophenol          | 1              | 0             |      | 50.4691  | 50          | 101 |      | 70        | 130       |
| 1,2,4-Trichlorobenzene      | 1              | 0             |      | 50.3856  | 50          | 101 |      | 70        | 130       |
| Naphthalene                 | 1              | 0             |      | 51.9337  | 50          | 104 |      | 70        | 130       |
| 4-Chloroaniline             | 1              | 0             |      | 53.2541  | 50          | 107 |      | 50        | 150       |
| Hexachlorobutadiene         | 1              | 0             |      | 52.2978  | 50          | 105 |      | 70        | 130       |
| Caprolactam                 | 1              | 0             |      | 55.5353  | 50          | 111 |      | 70        | 130       |
| 4-Chloro-3-methylphenol     | 1              | 0             |      | 50.6572  | 50          | 101 |      | 70        | 130       |
| 2-Methylnaphthalene         | 1              | 0             |      | 51.7499  | 50          | 103 |      | 70        | 130       |
| 1-Methylnaphthalene         | 1              | 0             |      | 107.7909 | 100         | 108 |      | 70        | 130       |
| 1,1'-Biophenyl              | 1              | 0             |      | 46.084   | 50          | 92  |      | 70        | 130       |
| 1,2,4,5-Tetrachlorobenzene  | 1              | 0             |      | 51.839   | 50          | 104 |      | 70        | 130       |
| Hexachlorocyclopentadiene   | 1              | 0             |      | 56.8594  | 50          | 114 |      | 70        | 130       |
| 2,4,6-Trichlorophenol       | 1              | 0             |      | 49.8172  | 50          | 100 |      | 70        | 130       |
| 2,4,5-Trichlorophenol       | 1              | 0             |      | 48.3961  | 50          | 97  |      | 70        | 130       |
| 2-Chloronaphthalene         | 1              | 0             |      | 48.6681  | 50          | 97  |      | 70        | 130       |
| 1,4-Dimethylnaphthalene     | 1              | 0             |      | 44.2678  | 50          | 89  |      | 70        | 130       |
| Diphenyl Ether              | 1              | 0             |      | 50.9352  | 50          | 102 |      | 70        | 130       |
| 2-Nitroaniline              | 1              | 0             |      | 52.5114  | 50          | 105 |      | 70        | 130       |
| Acenaphthylene              | 1              | 0             |      | 52.909   | 50          | 106 |      | 70        | 130       |
| Dimethylnaphthalene         | 1              | 0             |      | 49.4838  | 50          | 99  |      | 70        | 130       |
| 2,6-Dinitrotoluene          | 1              | 0             |      | 48.3168  | 50          | 97  |      | 70        | 130       |
| Acenaphthene                | 1              | 0             |      | 49.229   | 50          | 98  |      | 70        | 130       |
| 3-Nitroaniline              | 1              | 0             |      | 53.4619  | 50          | 107 |      | 70        | 130       |
| 2,4-Dinitrophenol           | 1              | 0             |      | 51.0219  | 50          | 102 |      | 70        | 130       |
| Dibenzofuran                | 1              | 0             |      | 50.7024  | 50          | 101 |      | 70        | 130       |
| 2,4-Dinitrotoluene          | 1              | 0             |      | 50.5872  | 50          | 101 |      | 70        | 130       |
| 4-Nitrophenol               | 1              | 0             |      | 49.1269  | 50          | 98  |      | 70        | 130       |
| 2,3,4,6-Tetrachlorophenol   | 1              | 0             |      | 47.2872  | 50          | 95  |      | 70        | 130       |
| Fluorene                    | 1              | 0             |      | 49.0599  | 50          | 98  |      | 70        | 130       |
| 4-Chlorophenyl-phenylether  | 1              | 0             |      | 50.6312  | 50          | 101 |      | 70        | 130       |
| Diethylnaphthalene          | 1              | 0             |      | 48.7791  | 50          | 98  |      | 70        | 130       |
| 4-Nitroaniline              | 1              | 0             |      | 51.3659  | 50          | 103 |      | 70        | 130       |
| Atrazine                    | 1              | 0             |      | 54.9585  | 50          | 110 |      | 70        | 130       |
| 4,6-Dinitro-2-methylphenol  | 1              | 0             |      | 55.1021  | 50          | 110 |      | 70        | 130       |
| n-Nitrosodiphenylamine      | 1              | 0             |      | 49.2371  | 50          | 98  |      | 70        | 130       |
| 1,2-Diphenylhydrazine       | 1              | 0             |      | 52.2434  | 50          | 104 |      | 70        | 130       |
| 4-Bromophenyl-phenylether   | 1              | 0             |      | 50.6876  | 50          | 101 |      | 70        | 130       |
| Hexachlorobenzene           | 1              | 0             |      | 49.4463  | 50          | 99  |      | 70        | 130       |
| Pentachlorophenol           | 1              | 0             |      | 46.6992  | 50          | 93  |      | 70        | 130       |
| Phenanthrene                | 1              | 0             |      | 51.1776  | 50          | 102 |      | 70        | 130       |
| Anthracene                  | 1              | 0             |      | 49.7933  | 50          | 100 |      | 70        | 130       |
| Carbazole                   | 1              | 0             |      | 49.7854  | 50          | 100 |      | 70        | 130       |
| Di-n-butylphthalate         | 1              | 0             |      | 50.3952  | 50          | 101 |      | 70        | 130       |
| Fluoranthene                | 1              | 0             |      | 49.5005  | 50          | 99  |      | 70        | 130       |
| Pvrene                      | 1              | 0             |      | 49.0611  | 50          | 98  |      | 70        | 130       |
| Benzidine                   | 1              | 0             |      | 64.3197  | 50          | 129 |      | 50        | 150       |
| Butylbenzylphthalate        | 1              | 0             |      | 48.7593  | 50          | 98  |      | 70        | 130       |
| 3,3'-Dichlorobenzidine      | 1              | 0             |      | 45.2477  | 50          | 90  |      | 50        | 150       |
| Benzo[a]anthracene          | 1              | 0             |      | 48.621   | 50          | 97  |      | 70        | 130       |
| Chrysene                    | 1              | 0             |      | 49.6321  | 50          | 99  |      | 70        | 130       |
| bis(2-Ethylhexyl)phthalate  | 1              | 0             |      | 47.7287  | 50          | 95  |      | 70        | 130       |
| Di-n-octylphthalate         | 1              | 0             |      | 49.6521  | 50          | 99  |      | 70        | 130       |
| Benzo[b]fluoranthene        | 1              | 0             |      | 50.8717  | 50          | 102 |      | 70        | 130       |
| Benzo[k]fluoranthene        | 1              | 0             |      | 48.9822  | 50          | 98  |      | 70        | 130       |
| Benzo[a]pyrene              | 1              | 0             |      | 48.8681  | 50          | 98  |      | 70        | 130       |
| Indeno[1,2,3-cd]pyrene      | 1              | 0             |      | 48.0555  | 50          | 96  |      | 70        | 130       |
| Dibenzofluoranthene         | 1              | 0             |      | 48.2246  | 50          | 96  |      | 70        | 130       |
| Benzo[a,h]perylene          | 1              | 0             |      | 48.9822  | 50          | 98  |      | 70        | 130       |

## Form7

8101509 0439

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:35:00

Data File: 10M71437.D  
Method: EPA 8270D

Instrument: GCMS 10

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|-------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.73 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.76 | 49.67 | 50       | **     |        | 0.964      | 0.958 | 0.65  |      |
| Pyridine                    | 1    | 0         |      | 3.25 | 54.24 | 50       | **     |        | 2.286      | 2.429 | 8.48  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 3.18 | 51.26 | 50       | **     |        | 1.333      | 1.367 | 2.52  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.71 | 50.52 | 50       | **     |        | 2.316      | 2.339 | 1.03  |      |
| Benzaldehyde                | 1    | 0         |      | 5.53 | 53.79 | 50       | 20     | 0.01   | 1.115      | 1.199 | 7.58  |      |
| Aniline                     | 1    | 0         |      | 5.62 | 52.45 | 50       | **     |        | 2.883      | 3.406 | 4.89  |      |
| Pentachloroethane           | 1    | 0         |      | 5.66 | 53.51 | 50       | **     | 0.05   | 0.876      | 0.938 | 7.03  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.67 | 51.93 | 50       | 20     | 0.7    | 2.349      | 2.404 | 3.87  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.58 | 53.79 | 50       | **     |        | 3.134      | 3.372 | 7.58  |      |
| Phenol                      | 1    | 0         |      | 5.59 | 55.96 | 50       | 20     | 0.8    | 3.104      | 3.474 | 11.93 |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.72 | 52.41 | 50       | 20     | 0.8    | 2.592      | 2.718 | 4.82  |      |
| N-Decane                    | 1    | 0         |      | 5.75 | 55.41 | 50       | **     | 0.05   | 2.035      | 2.255 | 10.81 |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.85 | 51.84 | 50       | **     |        | 2.875      | 2.981 | 3.69  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.89 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.91 | 49.97 | 50       | 20     |        | 1.472      | 1.471 | 0.06  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 6.03 | 48.90 | 50       | **     |        | 1.438      | 1.407 | 2.20  |      |
| Benzyl alcohol              | 1    | 0         |      | 6.01 | 50.94 | 50       | **     |        | 0.812      | 0.827 | 1.87  |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 6.11 | 50.78 | 50       | 20     | 0.01   | 1.365      | 1.387 | 1.56  |      |
| 2-Methylphenol              | 1    | 0         |      | 6.10 | 50.08 | 50       | 20     | 0.7    | 1.163      | 1.165 | 0.17  |      |
| Acetophenone                | 1    | 0         |      | 6.22 | 53.06 | 50       | 20     | 0.01   | 1.647      | 1.748 | 6.13  |      |
| Hexachloroethane            | 1    | 0         |      | 6.31 | 52.39 | 50       | 20     | 0.3    | 0.570      | 0.597 | 4.79  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.21 | 54.57 | 50       | 20     | 0.5    | 0.768      | 0.838 | 9.14  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.21 | 55.27 | 50       | 20     |        | 1.105      | 1.221 | 10.54 |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.90 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.34 | 24.73 | 25       | **     |        | 0.121      | 0.124 | 1.06  |      |
| Nitrobenzene                | 1    | 0         |      | 6.36 | 48.16 | 50       | 20     | 0.2    | 0.348      | 0.335 | 3.68  |      |
| Isophorone                  | 1    | 0         |      | 6.54 | 49.53 | 50       | 20     | 0.4    | 0.598      | 0.593 | 0.94  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.60 | 49.06 | 50       | 20     | 0.1    | 0.190      | 0.187 | 1.87  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.63 | 48.35 | 50       | 20     | 0.2    | 0.355      | 0.343 | 3.30  |      |
| Benzoic Acid                | 1    | 0         |      | 6.70 | 33.91 | 50       | **     |        | 0.296      | 0.179 | 32.19 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.70 | 49.59 | 50       | 20     | 0.3    | 0.375      | 0.372 | 0.83  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.79 | 49.80 | 50       | 20     | 0.2    | 0.310      | 0.308 | 0.40  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.85 | 47.96 | 50       | **     |        | 0.336      | 0.322 | 4.08  |      |
| Naphthalene                 | 1    | 0         |      | 6.91 | 50.07 | 50       | 20     | 0.7    | 1.083      | 1.063 | 0.14  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.95 | 57.37 | 50       | 20     | 0.01   | 0.344      | 0.395 | 14.74 |      |
| Hexachlorobutadiene         | 1    | 0         |      | 7.00 | 47.64 | 50       | 20     | 0.01   | 0.188      | 0.179 | 4.72  |      |
| Caprolactam                 | 1    | 0         |      | 7.23 | 48.44 | 50       | 20     | 0.01   | 0.112      | 0.105 | 3.12  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.31 | 51.49 | 50       | 20     | 0.2    | 0.284      | 0.292 | 2.97  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.45 | 50.43 | 50       | **     | 0.4    | 0.701      | 0.707 | 0.86  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.53 | 50.03 | 50       | **     | 0.4    | 0.690      | 0.690 | 0.05  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.45 | 99.86 | 100      | **     |        |            | 0.693 | 0.14  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.82 | 48.75 | 50       | 20     | 0.01   | 0.871      | 0.850 | 2.49  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.33 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.58 | 47.79 | 50       | 20     | 0.01   | 0.548      | 0.524 | 4.43  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.57 | 33.59 | 50       | 20     | 0.05   | 0.188      | 0.132 | 32.83 | C1   |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.67 | 48.44 | 50       | 20     | 0.2    | 0.333      | 0.323 | 3.12  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.71 | 48.47 | 50       | 20     | 0.2    | 0.354      | 0.343 | 3.06  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.74 | 24.06 | 25       | **     |        | 1.281      | 1.232 | 3.76  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.85 | 49.16 | 50       | 20     | 0.8    | 1.056      | 1.038 | 1.69  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 8.13 | 50.88 | 50       | **     |        | 0.872      | 0.887 | 1.76  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 8.13 | 50.88 | 50       | 20     |        |            | 0.887 | 1.76  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
C1-Compound %Diff exceeds limits

\*\* - No limit specified in method  
Page 1 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0440

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:35:00

Data File: 10M71437.D  
Method: EPA 8270D

Instrument: GCMS 10

| TxtCompd:                  | Co# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|-----|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1   | 0         |      | 7.91  | 49.94 | 50       | **     |        | 0.783      | 0.782 | 0.11  |      |
| 2-Nitroaniline             | 1   | 0         |      | 7.93  | 48.20 | 50       | 20     | 0.01   | 0.375      | 0.362 | 3.59  |      |
| Coumarin                   | 1   | 0         |      | 8.12  | 53.46 |          | **     |        | 0.389      |       |       |      |
| Acenaphthylene             | 1   | 0         |      | 8.21  | 47.39 | 50       | 20     | 0.9    | 1.558      | 1.477 | 5.22  |      |
| Dimethylphthalate          | 1   | 0         |      | 8.07  | 48.43 | 50       | 20     | 0.01   | 1.234      | 1.195 | 3.14  |      |
| 2,6-Dinitrotoluene         | 1   | 0         |      | 8.13  | 52.11 | 50       | 20     | 0.2    | 0.257      | 0.268 | 4.22  |      |
| Acenaphthene               | 1   | 0         |      | 8.36  | 49.35 | 50       | 20     | 0.9    | 1.099      | 1.084 | 1.30  |      |
| 3-Nitroaniline             | 1   | 0         |      | 8.28  | 49.06 | 50       | 20     | 0.01   | 0.280      | 0.304 | 1.88  |      |
| 2,4-Dinitrophenol          | 1   | 0         |      | 8.38  | 39.56 | 50       | 20     | 0.01   | 0.151      | 0.107 | 20.87 | C1   |
| Dibenzofuran               | 1   | 0         |      | 8.52  | 46.41 | 50       | 20     | 0.8    | 1.584      | 1.475 | 7.18  |      |
| 2,4-Dinitrotoluene         | 1   | 0         |      | 8.49  | 45.82 | 50       | 20     | 0.2    | 0.380      | 0.370 | 8.37  |      |
| 4-Nitrophenol              | 1   | 0         |      | 8.41  | 43.27 | 50       | 20     | 0.01   | 0.204      | 0.191 | 13.46 |      |
| 2,3,4,6-Tetrachlorophenol  | 1   | 0         |      | 8.63  | 47.22 | 50       | 20     | 0.01   | 0.308      | 0.291 | 5.57  |      |
| Fluorene                   | 1   | 0         |      | 8.84  | 47.44 | 50       | 20     | 0.9    | 1.260      | 1.195 | 5.13  |      |
| 4-Chlorophenyl-phenylether | 1   | 0         |      | 8.82  | 49.86 | 50       | 20     | 0.4    | 0.601      | 0.599 | 0.27  |      |
| Diethylphthalate           | 1   | 0         |      | 8.70  | 49.04 | 50       | 20     | 0.01   | 1.219      | 1.196 | 1.92  |      |
| 4-Nitroaniline             | 1   | 0         |      | 8.85  | 46.90 | 50       | 20     | 0.01   | 0.325      | 0.321 | 6.20  |      |
| Atrazine                   | 1   | 0         |      | 9.47  | 45.88 | 50       | 20     | 0.01   | 0.409      | 0.375 | 8.23  |      |
| Phenanthrene-d10           | 1   | 0         | I    | 9.80  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1   | 0         |      | 8.88  | 46.36 | 50       | 20     | 0.01   | 0.114      | 0.106 | 7.28  |      |
| n-Nitrosodiphenylamine     | 1   | 0         |      | 8.94  | 50.63 | 50       | 20     | 0.01   | 0.603      | 0.611 | 1.27  |      |
| 2,4,6-Tribromophenol       | 1   | 0         | S    | 9.08  | 46.44 | 50       | **     |        | 0.089      | 0.088 | 7.12  |      |
| 1,2-Diphenylhydrazine      | 1   | 0         |      | 8.98  | 54.29 | 50       | **     |        | 0.736      | 0.799 | 8.58  |      |
| 4-Bromophenyl-phenylether  | 1   | 0         |      | 9.32  | 50.66 | 50       | 20     | 0.1    | 0.185      | 0.188 | 1.31  |      |
| Hexachlorobenzene          | 1   | 0         |      | 9.39  | 48.84 | 50       | 20     | 0.1    | 0.199      | 0.194 | 2.32  |      |
| N-Octadecane               | 1   | 0         |      | 9.64  | 54.53 | 50       | **     | 0.05   | 0.338      | 0.369 | 9.06  |      |
| Pentachlorophenol          | 1   | 0         |      | 9.59  | 51.81 | 50       | 20     | 0.05   | 0.097      | 0.099 | 3.61  |      |
| Phenanthrene               | 1   | 0         |      | 9.83  | 50.35 | 50       | 20     | 0.7    | 1.057      | 1.064 | 0.71  |      |
| Anthracene                 | 1   | 0         |      | 9.88  | 51.40 | 50       | 20     | 0.7    | 1.073      | 1.103 | 2.79  |      |
| Carbazole                  | 1   | 0         |      | 10.05 | 50.43 | 50       | 20     | 0.01   | 0.976      | 0.984 | 0.85  |      |
| Di-n-butylphthalate        | 1   | 0         |      | 10.42 | 47.24 | 50       | 20     | 0.01   | 1.117      | 1.168 | 5.52  |      |
| Fluoranthene               | 1   | 0         |      | 11.16 | 51.57 | 50       | 20     | 0.6    | 1.115      | 1.150 | 3.14  |      |
| Chrysene-d12               | 1   | 0         | I    | 12.86 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1   | 0         |      | 11.43 | 46.87 | 50       | 20     | 0.6    | 1.233      | 1.156 | 6.27  |      |
| Benidine                   | 1   | 0         |      | 11.32 | 41.99 | 50       | **     |        | 0.463      | 0.402 | 16.02 |      |
| Terphenyl-d14              | 1   | 0         | S    | 11.61 | 22.14 | 25       | **     |        | 0.733      | 0.649 | 11.43 |      |
| 4,4'-DDE                   | 1   | 0         |      | 11.54 | 44.14 |          | **     |        | 0.254      |       |       |      |
| 4,4'-DDD                   | 1   | 0         |      | 11.94 | 46.21 |          | **     |        | 0.432      |       |       |      |
| Butylbenzylphthalate       | 1   | 0         |      | 12.18 | 49.48 | 50       | 20     | 0.01   | 0.536      | 0.515 | 1.05  |      |
| 4,4'-DDT                   | 1   | 0         |      | 12.29 | 46.93 |          | **     |        | 0.383      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1   | 0         |      | 12.81 | 50.22 | 50       | 20     | 0.01   | 0.352      | 0.372 | 0.44  |      |
| Benzo[a]anthracene         | 1   | 0         |      | 12.85 | 47.52 | 50       | 20     | 0.8    | 1.110      | 1.055 | 4.97  |      |
| Chrysene                   | 1   | 0         |      | 12.89 | 45.99 | 50       | 20     | 0.7    | 1.090      | 1.002 | 8.02  |      |
| bis(2-Ethylhexyl)phthalate | 1   | 0         |      | 12.87 | 47.60 | 50       | 20     | 0.01   | 0.765      | 0.728 | 4.81  |      |
| Perylene-d12               | 1   | 0         | I    | 14.49 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1   | 0         |      | 13.62 | 46.80 | 50       | 20     | 0.01   | 1.236      | 1.260 | 6.41  |      |
| Benzo[b]fluoranthene       | 1   | 0         |      | 14.07 | 50.82 | 50       | 20     | 0.7    | 1.086      | 1.103 | 1.64  |      |
| Benzo[k]fluoranthene       | 1   | 0         |      | 14.10 | 51.70 | 50       | 20     | 0.7    | 1.069      | 1.106 | 3.39  |      |
| Benzo[a]pyrene             | 1   | 0         |      | 14.44 | 50.26 | 50       | 20     | 0.7    | 1.054      | 1.060 | 0.52  |      |
| Indeno[1,2,3-cd]pyrene     | 1   | 0         |      | 15.86 | 49.54 | 50       | 20     | 0.5    | 1.110      | 1.099 | 0.92  |      |
| Dibenzo[a,h]anthracene     | 1   | 0         |      | 15.87 | 50.34 | 50       | 20     | 0.4    | 0.920      | 0.927 | 0.67  |      |
| Benzo[g,h,i]perylene       | 1   | 0         |      | 16.25 | 48.94 | 50       | 20     | 0.5    | 0.980      | 0.959 | 2.11  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 2 of 3  
\*\*- No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0441

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/19/2018 9:35:00

Data File: 10M71437.D  
 Method: EPA 8270D

Instrument: GCMS 10

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| 1,4-Dioxane-d8                 | 1    | 100          |      | 0.00 | 0.00 | 40          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,2'-oxybis-(1-Chloropropane)  | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 1,4-Dioxane-d8-Surro           | 1    | 100          |      | 0.00 | 0.00 | 40          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.694         | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.872         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 4-Methylphenol                 | 1    | 100          |      | 0.00 | 0.00 | 50          | **        | 0.6       |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 C1-Compound %Diff exceeds limits

Page 3 of 3  
 \*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 10M71437.D  
Acq On : 10/19/18 09:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/19/18 10:04  
Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 39372      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.893  | 152  | 81447      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 309527     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 196345     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 338144     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 353562     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 329334     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.711  | 112  | 115138     | 50.52   | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 50.52%  |       |          |
| 16) Phenol-d5                  | 5.578  | 99   | 165934     | 53.79   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 53.79%  |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 24068      | 24.73   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.46%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 151245     | 24.06   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.12%  |       |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 37283      | 46.44   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 46.44%  |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 143440     | 22.14   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 44.28%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.759  | 88   | 47133      | 49.6740 | ng    | 94       |
| 9) Pyridine                    | 3.251  | 79   | 119523m    | 54.2415 | ng    |          |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 67259      | 51.2615 | ng    | 79       |
| 12) Benzaldehyde               | 5.530  | 77   | 59008      | 53.7876 | ng    | 69       |
| 13) Aniline                    | 5.621  | 93   | 167641     | 52.4468 | ng    | 72       |
| 14) Pentachloroethane          | 5.658  | 117  | 46148      | 53.5139 | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.669  | 93   | 118322     | 51.9341 | ng    | 74       |
| 17) Phenol                     | 5.594  | 94   | 170977     | 55.9629 | ng    | 86       |
| 18) 2-Chlorophenol             | 5.717  | 128  | 133742     | 52.4110 | ng    | 73       |
| 19) N-Decane                   | 5.749  | 57   | 110961     | 55.4053 | ng    | 81       |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 146696     | 51.8445 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.909  | 146  | 149758     | 49.9681 | ng    | 96       |
| 23) 1,2-Dichlorobenzene        | 6.032  | 146  | 143210     | 48.8999 | ng    | 96       |
| 24) Benzyl alcohol             | 6.006  | 108  | 84177      | 50.9369 | ng    | 74       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 141181     | 50.7794 | ng    | 82       |
| 26) 2-Methylphenol             | 6.097  | 108  | 118634     | 50.0847 | ng    | 90       |
| 27) Acetophenone               | 6.220  | 105  | 177996     | 53.0633 | ng    | 82       |
| 28) Hexachloroethane           | 6.305  | 117  | 60810      | 52.3929 | ng    | 89       |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 85304      | 54.5690 | ng    | 77       |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 124348     | 55.2715 | ng    | 96       |
| 33) Nitrobenzene               | 6.359  | 77   | 129518     | 48.1610 | ng    | 80       |
| 34) Isophorone                 | 6.541  | 82   | 229246     | 49.5279 | ng    | 83       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 72210      | 49.0642 | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 132830     | 48.3503 | ng    | 92       |
| 37) Benzoic Acid               | 6.701  | 105  | 69292      | 33.9068 | ng    | 81       |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 143975     | 49.5867 | ng    | 93       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 119360     | 49.7982 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 124619     | 47.9607 | ng    | 98       |
| 41) Naphthalene                | 6.915  | 128  | 411287     | 50.0683 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 152679     | 57.3702 | ng    | 97       |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 69298      | 47.6410 | ng    | 95       |
| 44) Caprolactam                | 7.225  | 113  | 40494      | 48.4381 | ng    | 65       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 113068     | 51.4868 | ng    | 85       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 273653     | 50.4313 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 267012     | 50.0261 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 536471m    | 99.8617 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 328761     | 48.7529 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 128612     | 47.7873 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.567  | 237  | 32451      | 33.5864 | ng    | 95       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 79204m     | 48.4396 | ng    |          |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 84183m     | 48.4720 | ng    |          |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 254863     | 49.1566 | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 217737     | 50.8823 | ng    | 88       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 217737     | 50.8823 | ng    | 88       |
| 59) Diphenyl Ether             | 7.910  | 170  | 191850     | 49.9431 | ng    | 79       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 88814      | 48.2033 | ng    | 40       |
| 61) Coumarin                   | 8.118  | 146  | 102063     | 53.4575 | ng    | 65       |
| 62) Acenaphthylene             | 8.209  | 152  | 362395     | 47.3899 | ng    | 98       |
| 63) Dimethylphthalate          | 8.070  | 163  | 293257     | 48.4287 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 65669      | 52.1108 | ng    | 76       |
| 65) Acenaphthene               | 8.364  | 153  | 266135     | 49.3520 | ng    | 94       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M\_1008.M  
 Data File: 10M71437.D Sam Mult : 1 Vial# : 2 Qt On : 10/19/18 10:04  
 Acq On : 10/19/18 09:35 Misc : A,BNA Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.284  | 138  | 74685    | 49.0599 | ng    | 70       |
| 67)  | 2,4-Dinitrophenol         | 8.380  | 184  | 26195    | 39.5645 | ng    | 39       |
| 68)  | Dibenzofuran              | 8.520  | 168  | 361951   | 46.4124 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165  | 90757    | 45.8164 | ng    | 67       |
| 70)  | 4-Nitrophenol             | 8.413  | 65   | 46762    | 43.2686 | ng    | 59       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.627  | 232  | 71449    | 47.2156 | ng    | 84       |
| 72)  | Fluorene                  | 8.840  | 166  | 293285   | 47.4365 | ng    | 97       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.824  | 204  | 147101   | 49.8645 | ng    | 84       |
| 74)  | Diethylphthalate          | 8.701  | 149  | 293525   | 49.0412 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.851  | 138  | 78711    | 46.8984 | ng    | 93       |
| 76)  | Atrazine                  | 9.466  | 200  | 92157    | 45.8826 | ng    | 97       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.878  | 198  | 44649    | 46.3622 | ng    | 66       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169  | 258141   | 50.6338 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77   | 337692   | 54.2909 | ng    | 82       |
| 82)  | 4-Bromophenyl-phenylether | 9.317  | 248  | 79329    | 50.6569 | ng    | 90       |
| 83)  | Hexachlorobenzene         | 9.391  | 284  | 82143    | 48.8382 | ng    | 69       |
| 84)  | N-Octadecane              | 9.637  | 57   | 156014   | 54.5300 | ng    | 76       |
| 85)  | Pentachlorophenol         | 9.589  | 266  | 41858    | 51.8054 | ng    | 98       |
| 86)  | Phenanthrene              | 9.830  | 178  | 449862   | 50.3535 | ng    | 99       |
| 87)  | Anthracene                | 9.883  | 178  | 466027   | 51.3975 | ng    | 98       |
| 88)  | Carbazole                 | 10.055 | 167  | 415987   | 50.4274 | ng    | 96       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 493896   | 47.2404 | ng    | 97       |
| 90)  | Fluoranthene              | 11.162 | 202  | 485918   | 51.5699 | ng    | 87       |
| 92)  | Pyrene                    | 11.429 | 202  | 510695   | 46.8661 | ng    | 84       |
| 93)  | Benzidine                 | 11.317 | 184  | 177671   | 41.9921 | ng    | 81       |
| 95)  | 4,4'-DDE                  | 11.536 | 246  | 99213    | 44.1433 | ng    | 94       |
| 96)  | 4,4'-DDD                  | 11.937 | 235  | 176403   | 46.2050 | ng    | 93       |
| 97)  | Butylbenzylphthalate      | 12.183 | 149  | 227595   | 49.4753 | ng    | 79       |
| 98)  | 4,4'-DDT                  | 12.290 | 235  | 158851   | 46.9274 | ng    | 94       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.815 | 252  | 164527   | 50.2185 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.852 | 228  | 466127   | 47.5165 | ng    | 100      |
| 101) | Chrysene                  | 12.895 | 228  | 443031   | 45.9882 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 321923   | 47.5966 | ng    | 95       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 518632   | 46.7971 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.066 | 252  | 454230   | 50.8221 | ng    | 94       |
| 106) | Benzo[k]fluoranthene      | 14.098 | 252  | 455205m  | 51.6973 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.435 | 252  | 436225   | 50.2613 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 452556   | 49.5380 | ng    | 90       |
| 109) | Dibenzo[a,h]anthracene    | 15.874 | 278  | 381470   | 50.3372 | ng    | 90       |
| 110) | Benzo[g,h,i]perylene      | 16.254 | 276  | 394880   | 48.9448 | ng    | 95       |

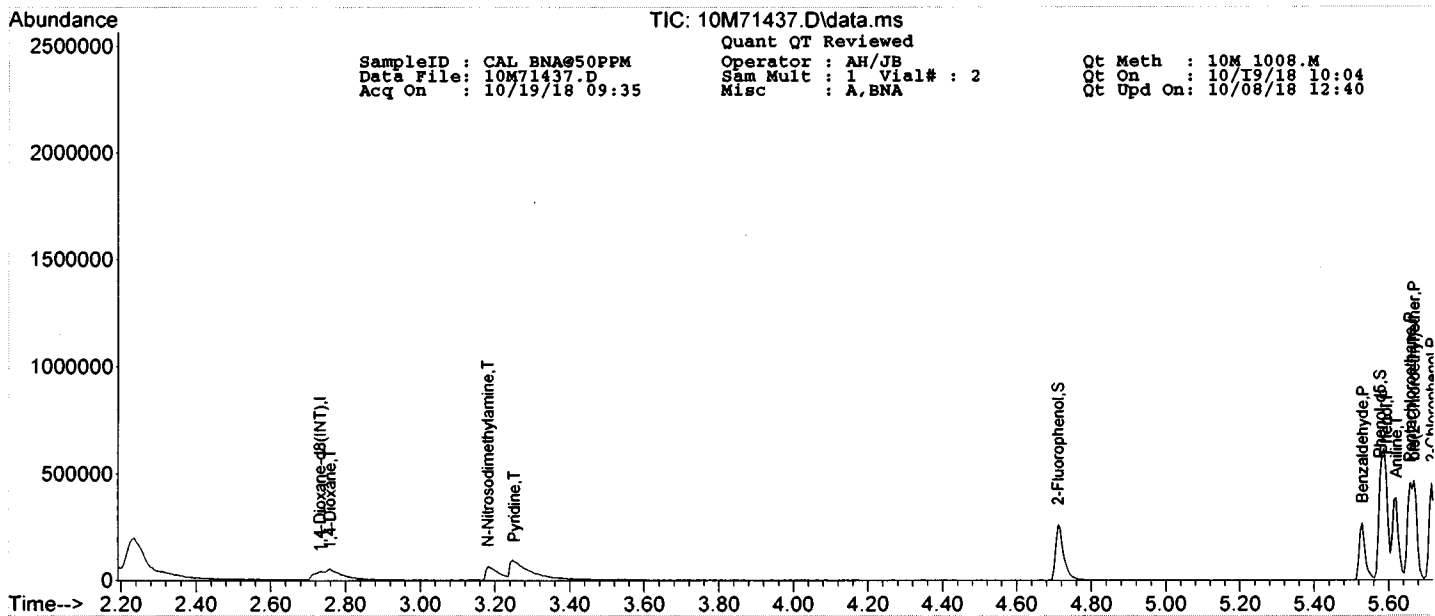
(#) = qualifier out of range (m) = manual integration (+) = signals summed

TIC: 10M71437.D\data.ms

SampleID : CAL BNA@50PPM  
Data File: 10M71437.D  
Acq On : 10/19/18 09:35

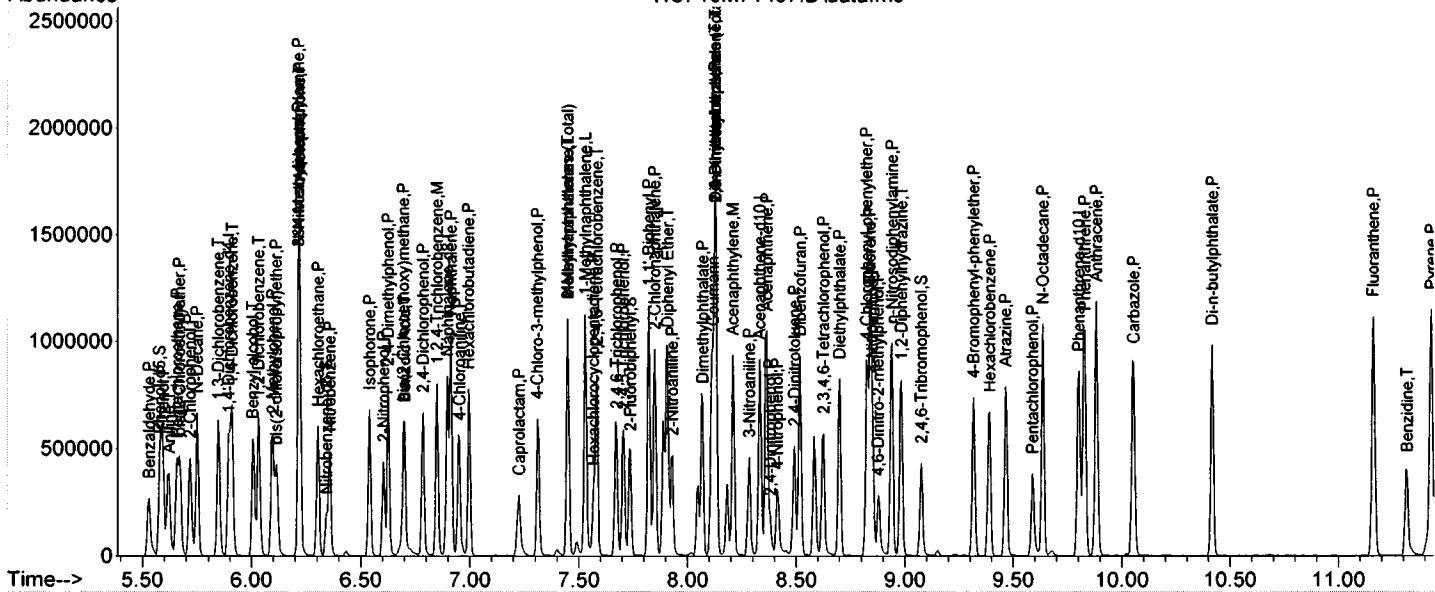
Quant QT Reviewed  
Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

```
Qt Meth   : 10M 1008.M
Qt On      : 10/19/18 10:04
Qt Upd On : 10/08/18 12:40
```



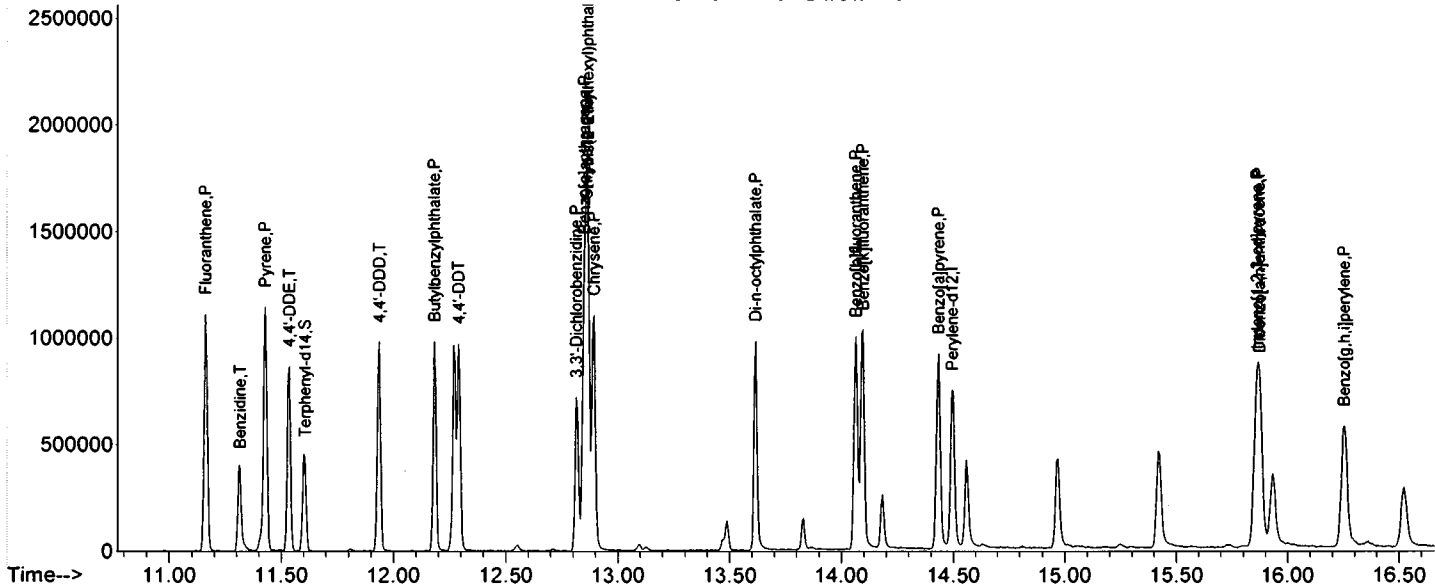
Abundance

TIC: 10M71437.D\data.ms



# Abundance

TIC: 10M71437.D\data.ms



## Form7

8101509 0445

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:35:00Data File: 10M71437.D  
Method: EPA 625.1

Instrument: GCMS 10

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.73 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.76 | 49.67 | 50          | 5         | 70        | 0.964         | 0.958 | 0.65  |      |
| Pyridine                    | 1    | 0            |      | 3.25 | 54.24 | 50          | 2.5       | 75        | 2.286         | 2.429 | 8.48  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 3.18 | 51.26 | 50          | 15        | 70        | 1.333         | 1.367 | 2.52  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.71 | 50.52 | 50          | **        |           | 2.316         | 2.339 | 1.03  |      |
| Benzaldehyde                | 1    | 0            |      | 5.53 | 53.79 | 50          | 2.5       | 115       | 1.115         | 1.199 | 7.58  |      |
| Aniline                     | 1    | 0            |      | 5.62 | 52.45 | 50          | 5         | 70        | 2.883         | 3.406 | 4.89  |      |
| Pentachloroethane           | 1    | 0            |      | 5.66 | 53.51 | 50          | 30        | 70        | 0.876         | 0.938 | 7.03  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.67 | 51.93 | 50          | 26        | 65        | 2.349         | 2.404 | 3.87  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.58 | 53.79 | 50          | **        |           | 3.134         | 3.372 | 7.58  |      |
| Phenol                      | 1    | 0            |      | 5.59 | 55.96 | 50          | 24        | 65        | 3.104         | 3.474 | 11.93 |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.72 | 52.41 | 50          | 27.5      | 65        | 2.592         | 2.718 | 4.82  |      |
| N-Decane                    | 1    | 0            |      | 5.75 | 55.41 | 50          | 30        | 70        | 2.035         | 2.255 | 10.81 |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.85 | 51.84 | 50          | 30        | 70        | 2.875         | 2.981 | 3.69  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.89 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.91 | 49.97 | 50          | 30        | 70        | 1.472         | 1.471 | 0.06  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 6.03 | 48.90 | 50          | 30        | 70        | 1.438         | 1.407 | 2.20  |      |
| Benzyl alcohol              | 1    | 0            |      | 6.01 | 50.94 | 50          | 30        | 70        | 0.812         | 0.827 | 1.87  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 6.11 | 50.78 | 50          | 31.5      | 69.5      | 1.365         | 1.387 | 1.56  |      |
| 2-Methylphenol              | 1    | 0            |      | 6.10 | 50.08 | 50          | 30        | 70        | 1.163         | 1.165 | 0.17  |      |
| Acetophenone                | 1    | 0            |      | 6.22 | 53.06 | 50          | 30        | 70        | 1.647         | 1.748 | 6.13  |      |
| Hexachloroethane            | 1    | 0            |      | 6.31 | 52.39 | 50          | 27.5      | 65        | 0.570         | 0.597 | 4.79  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.21 | 54.57 | 50          | 29.5      | 85        | 0.768         | 0.838 | 9.14  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.21 | 55.27 | 50          | 30        | 70        | 1.105         | 1.221 | 10.54 |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.90 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.34 | 24.73 | 25          | **        |           | 0.121         | 0.124 | 1.06  |      |
| Nitrobenzene                | 1    | 0            |      | 6.36 | 48.16 | 50          | 27        | 79        | 0.348         | 0.335 | 3.68  |      |
| Isophorone                  | 1    | 0            |      | 6.54 | 49.53 | 50          | 26        | 90        | 0.598         | 0.593 | 0.94  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.60 | 49.06 | 50          | 30.5      | 81.5      | 0.190         | 0.187 | 1.87  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.63 | 48.35 | 50          | 29        | 65        | 0.355         | 0.343 | 3.30  |      |
| Benzoic Acid                | 1    | 0            |      | 6.70 | 33.91 | 50          | 5         | 70        | 0.296         | 0.179 | 32.19 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.70 | 49.59 | 50          | 26        | 82        | 0.375         | 0.372 | 0.83  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.79 | 49.80 | 50          | 27        | 65        | 0.310         | 0.308 | 0.40  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.85 | 47.96 | 50          | 25.5      | 65        | 0.336         | 0.322 | 4.08  |      |
| Naphthalene                 | 1    | 0            |      | 6.91 | 50.07 | 50          | 35        | 65        | 1.083         | 1.063 | 0.14  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.95 | 57.37 | 50          | 15        | 115       | 0.344         | 0.395 | 14.74 |      |
| Hexachlorobutadiene         | 1    | 0            |      | 7.00 | 47.64 | 50          | 34        | 65        | 0.188         | 0.179 | 4.72  |      |
| Caprolactam                 | 1    | 0            |      | 7.23 | 48.44 | 50          | 30        | 70        | 0.112         | 0.105 | 3.12  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.31 | 51.49 | 50          | 34        | 65        | 0.284         | 0.292 | 2.97  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.45 | 50.43 | 50          | 30        | 70        | 0.701         | 0.707 | 0.86  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.53 | 50.03 | 50          | 30        | 70        | 0.690         | 0.690 | 0.05  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.45 | 99.86 | 100         | **        |           |               | 0.693 | 0.14  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.82 | 48.75 | 50          | 30        | 70        | 0.871         | 0.850 | 2.49  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.33 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.58 | 47.79 | 50          | 30        | 70        | 0.548         | 0.524 | 4.43  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.57 | 33.59 | 50          | 5         | 70        | 0.188         | 0.132 | 32.83 |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.67 | 48.44 | 50          | 34.5      | 65        | 0.333         | 0.323 | 3.12  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.71 | 48.47 | 50          | 30        | 70        | 0.354         | 0.343 | 3.06  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.74 | 24.06 | 25          | **        |           | 1.281         | 1.232 | 3.76  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.85 | 49.16 | 50          | 35        | 65        | 1.056         | 1.038 | 1.69  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 8.13 | 50.88 | 50          | 30        | 70        | 0.872         | 0.887 | 1.76  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 8.13 | 50.88 |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

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Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF



## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:35:00

Data File: 10M71437.D  
Method: EPA 625.1

Instrument: GCMS 10

| TxtCompd:                  | Col# | Multi<br>Num | Type | RT    | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|----------------------------|------|--------------|------|-------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0            |      | 7.91  | 49.94 | 50          | 30        | 70        | 0.783         | 0.782 | 0.11  |      |
| 2-Nitroaniline             | 1    | 0            |      | 7.93  | 48.20 | 50          | 30        | 70        | 0.375         | 0.362 | 3.59  |      |
| Coumarin                   | 1    | 0            |      | 8.12  | 53.46 | 50          | 30        | 70        | 0.389         | 0.416 | 6.92  |      |
| Acenaphthylene             | 1    | 0            |      | 8.21  | 47.39 | 50          | 30        | 65        | 1.558         | 1.477 | 5.22  |      |
| Dimethylphthalate          | 1    | 0            |      | 8.07  | 48.43 | 50          | 25        | 65        | 1.234         | 1.195 | 3.14  |      |
| 2,6-Dinitrotoluene         | 1    | 0            |      | 8.13  | 52.11 | 50          | 34        | 68.5      | 0.257         | 0.268 | 4.22  |      |
| Acenaphthene               | 1    | 0            |      | 8.36  | 49.35 | 50          | 35        | 65        | 1.099         | 1.084 | 1.30  |      |
| 3-Nitroaniline             | 1    | 0            |      | 8.28  | 49.06 | 50          | 30        | 70        | 0.280         | 0.304 | 1.88  |      |
| 2,4-Dinitrophenol          | 1    | 0            |      | 8.38  | 39.56 | 50          | 19.5      | 86.5      | 0.151         | 0.107 | 20.87 |      |
| Dibenzofuran               | 1    | 0            |      | 8.52  | 46.41 | 50          | 30        | 70        | 1.584         | 1.475 | 7.18  |      |
| 2,4-Dinitrotoluene         | 1    | 0            |      | 8.49  | 45.82 | 50          | 26.5      | 65        | 0.380         | 0.370 | 8.37  |      |
| 4-Nitrophenol              | 1    | 0            |      | 8.41  | 43.27 | 50          | 12.5      | 65        | 0.204         | 0.191 | 13.46 |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0            |      | 8.63  | 47.22 | 50          | 30        | 70        | 0.308         | 0.291 | 5.57  |      |
| Fluorene                   | 1    | 0            |      | 8.84  | 47.44 | 50          | 35        | 65        | 1.260         | 1.195 | 5.13  |      |
| 4-Chlorophenyl-phenylether | 1    | 0            |      | 8.82  | 49.86 | 50          | 28.5      | 72.5      | 0.601         | 0.599 | 0.27  |      |
| Diethylphthalate           | 1    | 0            |      | 8.70  | 49.04 | 50          | 23.5      | 65        | 1.219         | 1.196 | 1.92  |      |
| 4-Nitroaniline             | 1    | 0            |      | 8.85  | 46.90 | 50          | 30        | 70        | 0.325         | 0.321 | 6.20  |      |
| Atrazine                   | 1    | 0            |      | 9.47  | 45.88 | 50          | 5         | 70        | 0.409         | 0.375 | 8.23  |      |
| Phenanthrene-d10           | 1    | 0            | I    | 9.80  | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0            |      | 8.88  | 46.36 | 50          | 28        | 65        | 0.114         | 0.106 | 7.28  |      |
| n-Nitrosodiphenylamine     | 1    | 0            |      | 8.94  | 50.63 | 50          | 30        | 70        | 0.603         | 0.611 | 1.27  |      |
| 2,4,6-Tribromophenol       | 1    | 0            | S    | 9.08  | 46.44 | 50          | **        |           | 0.089         | 0.088 | 7.12  |      |
| 1,2-Diphenylhydrazine      | 1    | 0            |      | 8.98  | 54.29 | 50          | 30        | 70        | 0.736         | 0.799 | 8.58  |      |
| 4-Bromophenyl-phenylether  | 1    | 0            |      | 9.32  | 50.66 | 50          | 35        | 65        | 0.185         | 0.188 | 1.31  |      |
| Hexachlorobenzene          | 1    | 0            |      | 9.39  | 48.84 | 50          | 19        | 71        | 0.199         | 0.194 | 2.32  |      |
| N-Octadecane               | 1    | 0            |      | 9.64  | 54.53 | 50          | 30        | 70        | 0.338         | 0.369 | 9.06  |      |
| Pentachlorophenol          | 1    | 0            |      | 9.59  | 51.81 | 50          | 21        | 76        | 0.097         | 0.099 | 3.61  |      |
| Phenanthrene               | 1    | 0            |      | 9.83  | 50.35 | 50          | 33.5      | 65        | 1.057         | 1.064 | 0.71  |      |
| Anthracene                 | 1    | 0            |      | 9.88  | 51.40 | 50          | 29        | 65        | 1.073         | 1.103 | 2.79  |      |
| Carbazole                  | 1    | 0            |      | 10.05 | 50.43 | 50          | 30        | 70        | 0.976         | 0.984 | 0.85  |      |
| Di-n-butylphthalate        | 1    | 0            |      | 10.42 | 47.24 | 50          | 26        | 65        | 1.117         | 1.168 | 5.52  |      |
| Fluoranthene               | 1    | 0            |      | 11.16 | 51.57 | 50          | 23.5      | 65        | 1.115         | 1.150 | 3.14  |      |
| Chrysene-d12               | 1    | 0            | I    | 12.86 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0            |      | 11.43 | 46.87 | 50          | 35        | 65        | 1.233         | 1.156 | 6.27  |      |
| Benzidine                  | 1    | 0            |      | 11.32 | 41.99 | 50          | 2.5       | 75        | 0.463         | 0.402 | 16.02 |      |
| Terphenyl-d14              | 1    | 0            | S    | 11.61 | 22.14 | 25          | **        |           | 0.733         | 0.649 | 11.43 |      |
| 4,4'-DDE                   | 1    | 0            |      | 11.54 | 44.14 |             | **        |           | 0.254         |       |       |      |
| 4,4'-DDD                   | 1    | 0            |      | 11.94 | 46.21 |             | **        |           | 0.432         |       |       |      |
| Butylbenzylphthalate       | 1    | 0            |      | 12.18 | 49.48 | 50          | 21.5      | 70        | 0.536         | 0.515 | 1.05  |      |
| 4,4'-DDT                   | 1    | 0            |      | 12.29 | 46.93 |             | **        |           | 0.383         |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0            |      | 12.81 | 50.22 | 50          | 9         | 107       | 0.352         | 0.372 | 0.44  |      |
| Benzo[a]anthracene         | 1    | 0            |      | 12.85 | 47.52 | 50          | 21        | 66.5      | 1.110         | 1.055 | 4.97  |      |
| Chrysene                   | 1    | 0            |      | 12.89 | 45.99 | 50          | 22        | 70        | 1.090         | 1.002 | 8.02  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0            |      | 12.87 | 47.60 | 50          | 21.5      | 68.5      | 0.765         | 0.728 | 4.81  |      |
| Perylene-d12               | 1    | 0            | I    | 14.49 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0            |      | 13.62 | 46.80 | 50          | 10.5      | 66        | 1.236         | 1.260 | 6.41  |      |
| Benzo[b]fluoranthene       | 1    | 0            |      | 14.07 | 50.82 | 50          | 21        | 70        | 1.086         | 1.103 | 1.64  |      |
| Benzo[k]fluoranthene       | 1    | 0            |      | 14.10 | 51.70 | 50          | 12.5      | 73        | 1.069         | 1.106 | 3.39  |      |
| Benzo[a]pyrene             | 1    | 0            |      | 14.44 | 50.26 | 50          | 16        | 74        | 1.054         | 1.060 | 0.52  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0            |      | 15.86 | 49.54 | 50          | 6.5       | 75.5      | 1.110         | 1.099 | 0.92  |      |
| Dibenzo[a,h]anthracene     | 1    | 0            |      | 15.87 | 50.34 | 50          | 6.5       | 100       | 0.920         | 0.927 | 0.67  |      |
| Benzo[g,h,i]perylene       | 1    | 0            |      | 16.25 | 48.94 | 50          | 6.5       | 97.5      | 0.980         | 0.959 | 2.11  |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

CI-Compound %Diff exceeds limits

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\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0447

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:35:00Data File: 10M71437.D  
Method: EPA 625.1

Instrument: GCMS 10

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.694         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.872         | 0.000 | 100.00 |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
C1-Compound %Diff exceeds limitsPage 3 of 3  
\*\* - No limit specified in methodNote: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

8101509 0448

SampleID : CAL BNA@50PPM  
Data File: 10M71437.D  
Acq On : 10/19/18 09:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M 100%  
Qt On : 10/19/18 10:04  
Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min)  |
|--------------------------------|--------|------|----------|---------|--------|-----------|
| -----                          |        |      |          |         |        |           |
| Internal Standards             |        |      |          |         |        |           |
| 7) 1,4-Dioxane-d8 (INT)        | 2.732  | 96   | 39372    | 40.00   | ng     | 0.00      |
| 21) 1,4-Dichlorobenzene-d4     | 5.893  | 152  | 81447    | 40.00   | ng     | 0.00      |
| 31) Naphthalene-d8             | 6.899  | 136  | 309527   | 40.00   | ng     | 0.00      |
| 50) Acenaphthene-d10           | 8.332  | 164  | 196345   | 40.00   | ng     | 0.00      |
| 77) Phenanthrene-d10           | 9.803  | 188  | 338144   | 40.00   | ng     | 0.00      |
| 91) Chrysene-d12               | 12.863 | 240  | 353562   | 40.00   | ng     | 0.00      |
| 103) Perylene-d12              | 14.494 | 264  | 329334   | 40.00   | ng     | 0.00      |
| System Monitoring Compounds    |        |      |          |         |        |           |
| 11) 2-Fluorophenol             | 4.711  | 112  | 115138   | 50.52   | ng     | -0.01     |
| Spiked Amount 100.000          |        |      | Recovery | =       | 50.52% |           |
| 16) Phenol-d5                  | 5.578  | 99   | 165934   | 53.79   | ng     | 0.00      |
| Spiked Amount 100.000          |        |      | Recovery | =       | 53.79% |           |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 24068    | 24.73   | ng     | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery | =       | 49.46% |           |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 151245   | 24.06   | ng     | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery | =       | 48.12% |           |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 37283    | 46.44   | ng     | 0.00      |
| Spiked Amount 100.000          |        |      | Recovery | =       | 46.44% |           |
| 94) Terphenyl-d14              | 11.606 | 244  | 143440   | 22.14   | ng     | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery | =       | 44.28% |           |
| Target Compounds               |        |      |          |         |        |           |
| 8) 1,4-Dioxane                 | 2.759  | 88   | 47133    | 49.6740 | ng     | Qvalue 94 |
| 9) Pyridine                    | 3.251  | 79   | 119523m  | 54.2415 | ng     |           |
| 10) N-Nitrosodimethylamine     | 3.182  | 74   | 67259    | 51.2615 | ng     | 79        |
| 12) Benzaldehyde               | 5.530  | 77   | 59008    | 53.7876 | ng     | 69        |
| 13) Aniline                    | 5.621  | 93   | 167641   | 52.4468 | ng     | 72        |
| 14) Pentachloroethane          | 5.658  | 117  | 46148    | 53.5139 | ng     | 77        |
| 15) bis(2-Chloroethyl)ether    | 5.669  | 93   | 118322   | 51.9341 | ng     | 74        |
| 17) Phenol                     | 5.594  | 94   | 170977   | 55.9629 | ng     | 86        |
| 18) 2-Chlorophenol             | 5.717  | 128  | 133742   | 52.4110 | ng     | 73        |
| 19) N-Decane                   | 5.749  | 57   | 110961   | 55.4053 | ng     | 81        |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 146696   | 51.8445 | ng     | 98        |
| 22) 1,4-Dichlorobenzene        | 5.909  | 146  | 149758   | 49.9681 | ng     | 96        |
| 23) 1,2-Dichlorobenzene        | 6.032  | 146  | 143210   | 48.8999 | ng     | 96        |
| 24) Benzyl alcohol             | 6.006  | 108  | 84177    | 50.9369 | ng     | 74        |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 141181   | 50.7794 | ng     | 82        |
| 26) 2-Methylphenol             | 6.097  | 108  | 118634   | 50.0847 | ng     | 90        |
| 27) Acetophenone               | 6.220  | 105  | 177996   | 53.0633 | ng     | 82        |
| 28) Hexachloroethane           | 6.305  | 117  | 60810    | 52.3929 | ng     | 89        |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 85304    | 54.5690 | ng     | 77        |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 124348   | 55.2715 | ng     | 96        |
| 33) Nitrobenzene               | 6.359  | 77   | 129518   | 48.1610 | ng     | 80        |
| 34) Isophorone                 | 6.541  | 82   | 229246   | 49.5279 | ng     | 83        |
| 35) 2-Nitrophenol              | 6.605  | 139  | 72210    | 49.0642 | ng     | 89        |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 132830   | 48.3503 | ng     | 92        |
| 37) Benzoic Acid               | 6.701  | 105  | 69292    | 33.9068 | ng     | 81        |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 143975   | 49.5867 | ng     | 93        |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 119360   | 49.7982 | ng     | 85        |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 124619   | 47.9607 | ng     | 98        |
| 41) Naphthalene                | 6.915  | 128  | 411287   | 50.0683 | ng     | 98        |
| 42) 4-Chloroaniline            | 6.952  | 127  | 152679   | 57.3702 | ng     | 97        |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 69298    | 47.6410 | ng     | 95        |
| 44) Caprolactam                | 7.225  | 113  | 40494    | 48.4381 | ng     | 65        |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 113068   | 51.4868 | ng     | 85        |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 273653   | 50.4313 | ng     | 99        |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 267012   | 50.0261 | ng     | 94        |
| 48) Methylnaphthalenes (To...  | 7.450  | 142  | 536471m  | 99.8617 | ng     |           |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 328761   | 48.7529 | ng     | 93        |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 128612   | 47.7873 | ng     | 97        |
| 52) Hexachlorocyclopentadiene  | 7.567  | 237  | 32451    | 33.5864 | ng     | 95        |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 79204m   | 48.4396 | ng     |           |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 84183m   | 48.4720 | ng     |           |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 254863   | 49.1566 | ng     | 91        |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 217737   | 50.8823 | ng     | 88        |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 217737   | 50.8823 | ng     | 88        |
| 59) Diphenyl Ether             | 7.910  | 170  | 191850   | 49.9431 | ng     | 79        |
| 60) 2-Nitroaniline             | 7.931  | 65   | 88814    | 48.2033 | ng     | 40        |
| 61) Coumarin                   | 8.118  | 146  | 102063   | 53.4575 | ng     | 65        |
| 62) Acenaphthylene             | 8.209  | 152  | 362395   | 47.3899 | ng     | 98        |
| 63) Dimethylphthalate          | 8.070  | 163  | 293257   | 48.4287 | ng     | 99        |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 65669    | 52.1108 | ng     | 76        |
| 65) Acenaphthene               | 8.364  | 153  | 266135   | 49.3520 | ng     | 94        |

SampleID : CAL BNA@50PPM  
 Data File: 10M71437.D  
 Acq On : 10/19/18 09:35

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 10M\_1008.M  
 Qt On : 10/19/18 10:04  
 Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 74685    | 49.0599 | ng    | 70       |
| 67) 2,4-Dinitrophenol          | 8.380  | 184  | 26195    | 39.5645 | ng    | 39       |
| 68) Dibenzofuran               | 8.520  | 168  | 361951   | 46.4124 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 90757    | 45.8164 | ng    | 67       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 46762    | 43.2686 | ng    | 59       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 71449    | 47.2156 | ng    | 84       |
| 72) Fluorene                   | 8.840  | 166  | 293285   | 47.4365 | ng    | 97       |
| 73) 4-Chlorophenyl-phenyle...  | 8.824  | 204  | 147101   | 49.8645 | ng    | 84       |
| 74) Diethylphthalate           | 8.701  | 149  | 293525   | 49.0412 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 78711    | 46.8984 | ng    | 93       |
| 76) Atrazine                   | 9.466  | 200  | 92157    | 45.8826 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 44649    | 46.3622 | ng    | 66       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 258141   | 50.6338 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 337692   | 54.2909 | ng    | 82       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 79329    | 50.6569 | ng    | 90       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 82143    | 48.8382 | ng    | 69       |
| 84) N-Octadecane               | 9.637  | 57   | 156014   | 54.5300 | ng    | 76       |
| 85) Pentachlorophenol          | 9.589  | 266  | 41858    | 51.8054 | ng    | 98       |
| 86) Phenanthrene               | 9.830  | 178  | 449862   | 50.3535 | ng    | 99       |
| 87) Anthracene                 | 9.883  | 178  | 466027   | 51.3975 | ng    | 98       |
| 88) Carbazole                  | 10.055 | 167  | 415987   | 50.4274 | ng    | 96       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 493896   | 47.2404 | ng    | 97       |
| 90) Fluoranthene               | 11.162 | 202  | 485918   | 51.5699 | ng    | 87       |
| 92) Pyrene                     | 11.429 | 202  | 510695   | 46.8661 | ng    | 84       |
| 93) Benzidine                  | 11.317 | 184  | 177671   | 41.9921 | ng    | 81       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 99213    | 44.1433 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 176403   | 46.2050 | ng    | 93       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 227595   | 49.4753 | ng    | 79       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 158851   | 46.9274 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 164527   | 50.2185 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 466127   | 47.5165 | ng    | 100      |
| 101) Chrysene                  | 12.895 | 228  | 443031   | 45.9882 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 321923   | 47.5966 | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 518632   | 46.7971 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 454230   | 50.8221 | ng    | 94       |
| 106) Benzo[k]fluoranthene      | 14.098 | 252  | 455205m  | 51.6973 | ng    |          |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 436225   | 50.2613 | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 452556   | 49.5380 | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 381470   | 50.3372 | ng    | 90       |
| 110) Benzo[g,h,i]perylene      | 16.254 | 276  | 394880   | 48.9448 | ng    | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:44:00

Data File: 5M105871.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.52 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.55 | 47.42 | 50          | 5         | 70        | 0.979         | 0.963 | 5.16  |      |
| Pyridine                    | 1    | 0            |      | 3.02 | 47.48 | 50          | 2.5       | 75        | 2.530         | 2.403 | 5.04  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 2.95 | 49.21 | 50          | 15        | 70        | 1.441         | 1.418 | 1.57  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.54 | 48.20 | 50          | **        |           | 2.077         | 2.002 | 3.60  |      |
| Benzaldehyde                | 1    | 0            |      | 5.37 | 48.29 | 50          | 2.5       | 115       | 1.211         | 1.169 | 3.41  |      |
| Aniline                     | 1    | 0            |      | 5.46 | 45.41 | 50          | 5         | 70        | 2.890         | 3.076 | 9.19  |      |
| Pentachloroethane           | 1    | 0            |      | 5.50 | 46.46 | 50          | 30        | 70        | 0.798         | 0.742 | 7.08  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.52 | 45.97 | 50          | 26        | 65        | 2.508         | 2.306 | 8.05  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.43 | 48.39 | 50          | **        |           | 3.202         | 3.099 | 3.23  |      |
| Phenol                      | 1    | 0            |      | 5.44 | 50.05 | 50          | 24        | 65        | 3.388         | 3.391 | 0.09  |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.56 | 47.15 | 50          | 27.5      | 65        | 2.390         | 2.254 | 5.70  |      |
| N-Decane                    | 1    | 0            |      | 5.60 | 45.65 | 50          | 30        | 70        | 2.744         | 2.505 | 8.70  |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.69 | 46.68 | 50          | 30        | 70        | 2.683         | 2.505 | 6.64  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.74 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.75 | 48.66 | 50          | 30        | 70        | 1.495         | 1.454 | 2.69  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 5.88 | 49.98 | 50          | 30        | 70        | 1.389         | 1.389 | 0.03  |      |
| Benzyl alcohol              | 1    | 0            |      | 5.86 | 50.66 | 50          | 30        | 70        | 0.819         | 0.830 | 1.33  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 5.97 | 48.37 | 50          | 31.5      | 69.5      | 1.886         | 1.825 | 3.26  |      |
| 2-Methylphenol              | 1    | 0            |      | 5.95 | 50.52 | 50          | 30        | 70        | 1.201         | 1.214 | 1.04  |      |
| Acetophenone                | 1    | 0            |      | 6.07 | 51.10 | 50          | 30        | 70        | 1.751         | 1.789 | 2.20  |      |
| Hexachloroethane            | 1    | 0            |      | 6.15 | 47.69 | 50          | 27.5      | 65        | 0.555         | 0.530 | 4.61  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.07 | 45.57 | 50          | 29.5      | 85        | 0.846         | 0.874 | 8.85  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.07 | 47.44 | 50          | 30        | 70        | 1.137         | 1.253 | 5.11  |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.75 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.20 | 25.45 | 25          | **        |           | 0.118         | 0.120 | 1.80  |      |
| Nitrobenzene                | 1    | 0            |      | 6.21 | 47.91 | 50          | 27        | 79        | 0.369         | 0.353 | 4.19  |      |
| Isophorone                  | 1    | 0            |      | 6.39 | 48.76 | 50          | 26        | 90        | 0.639         | 0.623 | 2.48  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.46 | 49.39 | 50          | 30.5      | 81.5      | 0.172         | 0.175 | 1.21  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.48 | 47.60 | 50          | 29        | 65        | 0.338         | 0.345 | 4.80  |      |
| Benzoic Acid                | 1    | 0            |      | 6.58 | 28.65 | 50          | 5         | 70        | 0.250         | 0.114 | 42.71 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.56 | 48.88 | 50          | 26        | 82        | 0.416         | 0.406 | 2.24  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.65 | 49.48 | 50          | 27        | 65        | 0.260         | 0.281 | 1.04  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.70 | 50.25 | 50          | 25.5      | 65        | 0.311         | 0.313 | 0.50  |      |
| Naphthalene                 | 1    | 0            |      | 6.77 | 47.90 | 50          | 35        | 65        | 1.070         | 1.025 | 4.21  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.81 | 51.83 | 50          | 15        | 115       | 0.321         | 0.394 | 3.66  |      |
| Hexachlorobutadiene         | 1    | 0            |      | 6.85 | 48.71 | 50          | 34        | 65        | 0.167         | 0.162 | 2.57  |      |
| Caprolactam                 | 1    | 0            |      | 7.08 | 47.18 | 50          | 30        | 70        | 0.100         | 0.103 | 5.65  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.17 | 48.96 | 50          | 34        | 65        | 0.282         | 0.279 | 2.08  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.30 | 49.93 | 50          | 30        | 70        | 0.687         | 0.687 | 0.14  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.38 | 48.02 | 50          | 30        | 70        | 0.676         | 0.649 | 3.97  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.30 | 98.17 | 100         | **        |           |               | 0.665 | 1.83  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.67 | 49.00 | 50          | 30        | 70        | 0.807         | 0.790 | 2.00  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.16 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.43 | 49.39 | 50          | 30        | 70        | 0.554         | 0.548 | 1.22  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.41 | 37.62 | 50          | 5         | 70        | 0.189         | 0.142 | 24.77 |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.52 | 47.97 | 50          | 34.5      | 65        | 0.304         | 0.312 | 4.06  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.55 | 51.03 | 50          | 30        | 70        | 0.335         | 0.346 | 2.07  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.58 | 24.84 | 25          | **        |           | 1.279         | 1.271 | 0.65  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.69 | 49.16 | 50          | 35        | 65        | 1.076         | 1.058 | 1.67  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 7.96 | 50.18 | 50          | 30        | 70        | 0.902         | 0.906 | 0.36  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 7.96 | 50.18 |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 1 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0452

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:44:00Data File: 5M105871.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.75  | 50.07 | 50       | 30     | 70     | 0.798      | 0.799 | 0.14  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.77  | 44.63 | 50       | 30     | 70     | 0.407      | 0.386 | 10.73 |      |
| Coumarin                   | 1    | 0         |      | 7.95  | 51.07 | 50       | 30     | 70     | 0.414      | 0.423 | 2.15  |      |
| Acenaphthylene             | 1    | 0         |      | 8.04  | 50.11 | 50       | 30     | 65     | 1.618      | 1.621 | 0.22  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.91  | 50.06 | 50       | 25     | 65     | 1.205      | 1.207 | 0.13  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 7.98  | 48.68 | 50       | 34     | 68.5   | 0.264      | 0.270 | 2.64  |      |
| Acenaphthene               | 1    | 0         |      | 8.19  | 49.45 | 50       | 35     | 65     | 1.114      | 1.101 | 1.10  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.12  | 49.84 | 50       | 30     | 70     | 0.272      | 0.307 | 0.33  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.22  | 41.28 | 50       | 19.5   | 86.5   | 0.121      | 0.091 | 17.45 |      |
| Dibenzofuran               | 1    | 0         |      | 8.35  | 48.23 | 50       | 30     | 70     | 1.562      | 1.553 | 3.54  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.33  | 48.23 | 50       | 26.5   | 65     | 0.345      | 0.357 | 3.54  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.26  | 40.84 | 50       | 12.5   | 65     | 0.215      | 0.190 | 18.31 |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.46  | 46.69 | 50       | 30     | 70     | 0.270      | 0.279 | 6.62  |      |
| Fluorene                   | 1    | 0         |      | 8.67  | 49.78 | 50       | 35     | 65     | 1.229      | 1.224 | 0.45  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.65  | 50.91 | 50       | 28.5   | 72.5   | 0.557      | 0.568 | 1.82  |      |
| Diethylphthalate           | 1    | 0         |      | 8.54  | 49.50 | 50       | 23.5   | 65     | 1.193      | 1.181 | 1.00  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.69  | 48.46 | 50       | 30     | 70     | 0.314      | 0.334 | 3.07  |      |
| Atrazine                   | 1    | 0         |      | 9.29  | 49.91 | 50       | 5      | 70     | 0.338      | 0.340 | 0.18  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.62  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.71  | 46.54 | 50       | 28     | 65     | 0.101      | 0.087 | 6.91  |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.77  | 48.49 | 50       | 30     | 70     | 0.625      | 0.606 | 3.03  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.90  | 50.39 | 50       | **     |        | 0.069      | 0.074 | 0.78  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.81  | 46.62 | 50       | 30     | 70     | 0.891      | 0.831 | 6.75  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.14  | 49.76 | 50       | 35     | 65     | 0.188      | 0.187 | 0.48  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.21  | 49.30 | 50       | 19     | 71     | 0.181      | 0.178 | 1.40  |      |
| N-Octadecane               | 1    | 0         |      | 9.47  | 44.63 | 50       | 30     | 70     | 0.493      | 0.476 | 10.74 |      |
| Pentachlorophenol          | 1    | 0         |      | 9.41  | 45.90 | 50       | 21     | 76     | 0.087      | 0.072 | 8.20  |      |
| Phenanthrene               | 1    | 0         |      | 9.64  | 48.51 | 50       | 33.5   | 65     | 1.085      | 1.052 | 2.99  |      |
| Anthracene                 | 1    | 0         |      | 9.70  | 49.50 | 50       | 29     | 65     | 1.089      | 1.078 | 1.01  |      |
| Carbazole                  | 1    | 0         |      | 9.87  | 49.93 | 50       | 30     | 70     | 1.010      | 1.008 | 0.14  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.24 | 45.32 | 50       | 26     | 65     | 1.063      | 1.137 | 9.36  |      |
| Fluoranthene               | 1    | 0         |      | 10.97 | 49.54 | 50       | 23.5   | 65     | 1.087      | 1.113 | 0.92  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.67 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.23 | 49.82 | 50       | 35     | 65     | 1.141      | 1.137 | 0.35  |      |
| Benzidine                  | 1    | 0         |      | 11.13 | 43.27 | 50       | 2.5    | 75     | 0.357      | 0.354 | 13.46 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.42 | 24.26 | 25       | **     |        | 0.640      | 0.621 | 2.97  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.35 | 49.59 |          | **     |        | 0.231      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.75 | 50.75 |          | **     |        | 0.370      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 12.00 | 48.28 | 50       | 21.5   | 70     | 0.470      | 0.478 | 3.43  |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.10 | 52.21 |          | **     |        | 0.330      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.63 | 52.59 | 50       | 9      | 107    | 0.271      | 0.336 | 5.18  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.66 | 49.19 | 50       | 21     | 66.5   | 1.082      | 1.064 | 1.62  |      |
| Chrysene                   | 1    | 0         |      | 12.70 | 50.79 | 50       | 22     | 70     | 1.036      | 1.052 | 1.58  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.69 | 45.66 | 50       | 21.5   | 68.5   | 0.664      | 0.705 | 8.67  |      |
| Perylene-d12               | 1    | 0         | I    | 14.28 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.44 | 46.72 | 50       | 10.5   | 66     | 1.269      | 1.285 | 6.57  |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.87 | 49.25 | 50       | 21     | 70     | 1.126      | 1.109 | 1.50  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.90 | 51.71 | 50       | 12.5   | 73     | 1.133      | 1.172 | 3.41  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.22 | 51.49 | 50       | 16     | 74     | 1.085      | 1.111 | 2.98  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.56 | 52.32 | 50       | 6.5    | 75.5   | 1.189      | 1.229 | 4.64  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.58 | 50.49 | 50       | 6.5    | 100    | 1.011      | 1.033 | 0.98  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 15.92 | 50.99 | 50       | 6.5    | 97.5   | 1.012      | 1.016 | 1.98  |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

CI-Compound %Diff exceeds limits

Page 2 of 3

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0453

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:44:00Data File: 5M105871.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.678         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.902         | 0.000 | 100.00 |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
C1-Compound %Diff exceeds limitsPage 3 of 3  
\*\* - No limit specified in methodNote: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF



SampleID : CAL BNA@50PPM  
Data File: 5M105871.D  
Acq On : 10/19/18 09:44

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M 1000  
Qt On : 10/19/18 10:00  
Qt Upd On: 10/08/18 13:12

8101509 0454

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-19-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.516  | 96   | 58769      | 40.00   | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 104259     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 386643     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 221233     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 372057     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 373793     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 308966     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 147053     | 48.20   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.20%  |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 227657     | 48.39   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.39%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 29037      | 25.45   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.90%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 175751     | 24.84   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.68%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 34561      | 50.39   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 50.39%  |       |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 145028     | 24.26   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.52%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
|                                |        |      |            |         |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.548  | 88   | 70758      | 47.4199 | ng    | 85       |
| 9) Pyridine                    | 3.018  | 79   | 176524     | 47.4821 | ng    | 72       |
| 10) N-Nitrosodimethylamine     | 2.948  | 74   | 104171     | 49.2137 | ng    | 80       |
| 12) Benzaldehyde               | 5.374  | 77   | 85905      | 48.2931 | ng    | 77       |
| 13) Aniline                    | 5.464  | 93   | 225956     | 45.4051 | ng    | 63       |
| 14) Pentachloroethane          | 5.497  | 117  | 54498      | 46.4590 | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 169417     | 45.9729 | ng    | 82       |
| 17) Phenol                     | 5.443  | 94   | 249115     | 50.0464 | ng    | 83       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 165555     | 47.1507 | ng    | 82       |
| 19) N-Decane                   | 5.598  | 57   | 184033     | 45.6522 | ng    | 89       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 183997     | 46.6803 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 189536     | 48.6559 | ng    | 96       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 181024     | 49.9838 | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 108111     | 50.6634 | ng    | 73       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 237795     | 48.3682 | ng    | 98       |
| 26) 2-Methylphenol             | 5.951  | 108  | 158171     | 50.5222 | ng    | 98       |
| 27) Acetophenone               | 6.073  | 105  | 233172     | 51.0977 | ng    | 79       |
| 28) Hexachloroethane           | 6.148  | 117  | 69032      | 47.6944 | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 113961     | 45.5747 | ng    | 76       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 163351     | 47.4430 | ng    | 95       |
| 33) Nitrobenzene               | 6.212  | 77   | 170837     | 47.9074 | ng    | 79       |
| 34) Isophorone                 | 6.394  | 82   | 300983     | 48.7590 | ng    | 89       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 84416      | 49.3949 | ng    | 88       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 166530     | 47.5982 | ng    | 94       |
| 37) Benzoic Acid               | 6.576  | 105  | 55040      | 28.6472 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 196363     | 48.8818 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 135789     | 49.4818 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 151178     | 50.2476 | ng    | 98       |
| 41) Naphthalene                | 6.768  | 128  | 495221     | 47.8974 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 190615     | 51.8285 | ng    | 91       |
| 43) Hexachlorobutadiene        | 6.853  | 225  | 78493      | 48.7143 | ng    | 97       |
| 44) Caprolactam                | 7.083  | 113  | 49550      | 47.1754 | ng    | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 134614     | 48.9611 | ng    | 79       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 331800     | 49.9303 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 313859     | 48.0158 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 643017m    | 98.1686 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 382018     | 48.9990 | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 151435     | 49.3909 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 39247      | 37.6159 | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 86208      | 47.9714 | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 95702      | 51.0329 | ng    | 100      |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 292555     | 49.1637 | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 250431     | 50.1776 | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 250431     | 50.1776 | ng    | 90       |
| 59) Diphenyl Ether             | 7.751  | 170  | 221053     | 50.0684 | ng    | 78       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 106718     | 44.6332 | ng    | 55       |
| 61) Coumarin                   | 7.954  | 146  | 116947     | 51.0741 | ng    | 74       |
| 62) Acenaphthylene             | 8.045  | 152  | 448305     | 50.1094 | ng    | 100      |
| 63) Dimethylphthalate          | 7.911  | 163  | 333708     | 50.0630 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 74791      | 48.6820 | ng    | 57       |
| 65) Acenaphthene               | 8.194  | 153  | 304553     | 49.4512 | ng    | 95       |

SampleID : CAL BNA@50PPM  
 Data File: 5M105871.D  
 Acq On : 10/19/18 09:44

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/19/18 10:00  
 Qt Upd On: 10/08/18 13:12

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 84827    | 49.8366 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.221  | 184  | 25271    | 41.2765 | ng    | 42       |
| 68) Dibenzofuran               | 8.349  | 168  | 429557   | 48.2324 | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 98587    | 48.2285 | ng    | 71       |
| 70) 4-Nitrophenol              | 8.258  | 65   | 52532    | 40.8441 | ng    | 81       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 77170    | 46.6898 | ng    | 81       |
| 72) Fluorene                   | 8.670  | 166  | 338418   | 49.7759 | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 156963   | 50.9088 | ng    | 87       |
| 74) Diethylphthalate           | 8.536  | 149  | 326559   | 49.5012 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 92338    | 48.4643 | ng    | 76       |
| 76) Atrazine                   | 9.295  | 200  | 93979    | 49.9104 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 40478    | 46.5444 | ng    | 56       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 281755   | 48.4859 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 386383   | 46.6239 | ng    | 89       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 87072    | 49.7615 | ng    | 83       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 82859    | 49.3012 | ng    | 72       |
| 84) N-Octadecane               | 9.466  | 57   | 221422   | 44.6277 | ng    | 81       |
| 85) Pentachlorophenol          | 9.412  | 266  | 33674    | 45.9021 | ng    | 92       |
| 86) Phenanthrene               | 9.642  | 178  | 489471   | 48.5055 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178  | 501127   | 49.4958 | ng    | 99       |
| 88) Carbazole                  | 9.866  | 167  | 468950   | 49.9307 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 528639   | 45.3212 | ng    | 98       |
| 90) Fluoranthene               | 10.972 | 202  | 517779   | 49.5399 | ng    | 90       |
| 92) Pyrene                     | 11.234 | 202  | 531026   | 49.8248 | ng    | 89       |
| 93) Benzidine                  | 11.127 | 184  | 165192   | 43.2725 | ng    | 88       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 106951   | 49.5855 | ng    | 92       |
| 96) 4,4'-DDD                   | 11.747 | 235  | 175405   | 50.7505 | ng    | 91       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 223500   | 48.2849 | ng    | 79       |
| 98) 4,4'-DDT                   | 12.100 | 235  | 161124   | 52.2101 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 157102   | 52.5907 | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 497173   | 49.1885 | ng    | 98       |
| 101) Chrysene                  | 12.698 | 228  | 491618   | 50.7880 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 329344   | 45.6635 | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 496187   | 46.7162 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.873 | 252  | 428344   | 49.2489 | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 452505m  | 51.7058 | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 429056   | 51.4905 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 474618   | 52.3187 | ng    | 91       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 398998   | 50.4884 | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.925 | 276  | 392223   | 50.9908 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:41:00Data File: 7M95305.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.50 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.54 | 50.98 | 50          | 5         | 70        | 0.940         | 0.958 | 1.97  |      |
| Pyridine                    | 1    | 0            |      | 2.96 | 48.85 | 50          | 2.5       | 75        | 2.543         | 2.434 | 2.29  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 2.90 | 49.24 | 50          | 15        | 70        | 1.450         | 1.428 | 1.51  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.53 | 47.17 | 50          | **        |           | 2.146         | 2.024 | 5.66  |      |
| Benzaldehyde                | 1    | 0            |      | 5.36 | 47.26 | 50          | 2.5       | 115       | 1.115         | 1.054 | 5.48  |      |
| Aniline                     | 1    | 0            |      | 5.46 | 50.62 | 50          | 5         | 70        | 2.833         | 2.868 | 1.23  |      |
| Pentachloroethane           | 1    | 0            |      | 5.50 | 49.01 | 50          | 30        | 70        | 0.725         | 0.710 | 1.97  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.52 | 50.45 | 50          | 26        | 65        | 2.222         | 2.212 | 0.90  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.42 | 47.84 | 50          | **        |           | 3.039         | 2.908 | 4.32  |      |
| Phenol                      | 1    | 0            |      | 5.44 | 48.83 | 50          | 24        | 65        | 3.018         | 2.948 | 2.33  |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.56 | 47.41 | 50          | 27.5      | 65        | 2.243         | 2.127 | 5.18  |      |
| N-Decane                    | 1    | 0            |      | 5.62 | 48.62 | 50          | 30        | 70        | 1.935         | 1.882 | 2.77  |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.69 | 48.40 | 50          | 30        | 70        | 2.413         | 2.336 | 3.20  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.74 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.76 | 49.06 | 50          | 30        | 70        | 1.460         | 1.432 | 1.88  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 5.88 | 49.84 | 50          | 30        | 70        | 1.379         | 1.375 | 0.32  |      |
| Benzyl alcohol              | 1    | 0            |      | 5.85 | 46.22 | 50          | 30        | 70        | 0.881         | 0.815 | 7.57  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 5.97 | 50.51 | 50          | 31.5      | 69.5      | 1.346         | 1.360 | 1.01  |      |
| 2-Methylphenol              | 1    | 0            |      | 5.94 | 48.49 | 50          | 30        | 70        | 1.205         | 1.169 | 3.01  |      |
| Acetophenone                | 1    | 0            |      | 6.07 | 51.31 | 50          | 30        | 70        | 1.723         | 1.768 | 2.62  |      |
| Hexachloroethane            | 1    | 0            |      | 6.16 | 50.48 | 50          | 27.5      | 65        | 0.534         | 0.539 | 0.96  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.07 | 49.54 | 50          | 29.5      | 85        | 0.837         | 0.830 | 0.91  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.07 | 49.89 | 50          | 30        | 70        | 1.203         | 1.201 | 0.21  |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.76 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.19 | 23.75 | 25          | **        |           | 0.126         | 0.119 | 4.98  |      |
| Nitrobenzene                | 1    | 0            |      | 6.21 | 50.63 | 50          | 27        | 79        | 0.334         | 0.338 | 1.26  |      |
| Isophorone                  | 1    | 0            |      | 6.40 | 48.70 | 50          | 26        | 90        | 0.617         | 0.601 | 2.61  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.46 | 49.73 | 50          | 30.5      | 81.5      | 0.178         | 0.176 | 0.55  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.49 | 48.29 | 50          | 29        | 65        | 0.332         | 0.321 | 3.41  |      |
| Benzoic Acid                | 1    | 0            |      | 6.55 | 36.26 | 50          | 5         | 70        | 0.326         | 0.235 | 27.47 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.56 | 50.29 | 50          | 26        | 82        | 0.418         | 0.420 | 0.58  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.64 | 48.32 | 50          | 27        | 65        | 0.280         | 0.270 | 3.35  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.71 | 47.91 | 50          | 25.5      | 65        | 0.312         | 0.299 | 4.17  |      |
| Naphthalene                 | 1    | 0            |      | 6.77 | 48.84 | 50          | 35        | 65        | 1.067         | 1.042 | 2.31  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.80 | 49.04 | 50          | 15        | 115       | 0.353         | 0.390 | 1.91  |      |
| Hexachlorobutadiene         | 1    | 0            |      | 6.87 | 47.85 | 50          | 34        | 65        | 0.158         | 0.151 | 4.29  |      |
| Caprolactam                 | 1    | 0            |      | 7.07 | 45.81 | 50          | 30        | 70        | 0.116         | 0.107 | 8.37  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.17 | 47.48 | 50          | 34        | 65        | 0.279         | 0.264 | 5.04  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.31 | 49.15 | 50          | 30        | 70        | 0.696         | 0.684 | 1.69  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.38 | 48.81 | 50          | 30        | 70        | 0.677         | 0.660 | 2.39  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.31 | 97.95 | 100         | **        |           |               | 0.672 | 2.05  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.68 | 48.56 | 50          | 30        | 70        | 0.811         | 0.788 | 2.89  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.17 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.44 | 48.11 | 50          | 30        | 70        | 0.528         | 0.508 | 3.78  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.44 | 46.17 | 50          | 5         | 70        | 0.243         | 0.231 | 7.66  |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.53 | 46.78 | 50          | 34.5      | 65        | 0.344         | 0.321 | 6.44  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.55 | 48.57 | 50          | 30        | 70        | 0.354         | 0.344 | 2.86  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.59 | 24.31 | 25          | **        |           | 1.270         | 1.235 | 2.77  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.70 | 48.91 | 50          | 35        | 65        | 1.087         | 1.063 | 2.17  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 7.97 | 49.80 | 50          | 30        | 70        | 0.944         | 0.940 | 0.41  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 7.97 | 49.80 |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 1 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF.

## Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:41:00Data File: 7M95305.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                  | Col# | Multi<br>Num | Type | RT    | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|----------------------------|------|--------------|------|-------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0            |      | 7.76  | 48.78 | 50          | 30        | 70        | 0.809         | 0.789 | 2.44  |      |
| 2-Nitroaniline             | 1    | 0            |      | 7.77  | 50.88 | 50          | 30        | 70        | 0.325         | 0.331 | 1.77  |      |
| Coumarin                   | 1    | 0            |      | 7.95  | 48.97 | 50          | 30        | 70        | 0.453         | 0.444 | 2.06  |      |
| Acenaphthylene             | 1    | 0            |      | 8.05  | 48.70 | 50          | 30        | 65        | 1.623         | 1.581 | 2.61  |      |
| Dimethylphthalate          | 1    | 0            |      | 7.92  | 48.67 | 50          | 25        | 65        | 1.193         | 1.161 | 2.67  |      |
| 2,6-Dinitrotoluene         | 1    | 0            |      | 7.97  | 52.72 | 50          | 34        | 68.5      | 0.258         | 0.272 | 5.45  |      |
| Acenaphthene               | 1    | 0            |      | 8.20  | 49.32 | 50          | 35        | 65        | 1.110         | 1.095 | 1.37  |      |
| 3-Nitroaniline             | 1    | 0            |      | 8.12  | 55.09 | 50          | 30        | 70        | 0.286         | 0.315 | 10.18 |      |
| 2,4-Dinitrophenol          | 1    | 0            |      | 8.20  | 52.67 | 50          | 19.5      | 86.5      | 0.112         | 0.126 | 5.33  |      |
| Dibenzofuran               | 1    | 0            |      | 8.35  | 47.93 | 50          | 30        | 70        | 1.566         | 1.501 | 4.13  |      |
| 2,4-Dinitrotoluene         | 1    | 0            |      | 8.32  | 49.19 | 50          | 26.5      | 65        | 0.338         | 0.358 | 1.61  |      |
| 4-Nitrophenol              | 1    | 0            |      | 8.24  | 52.33 | 50          | 12.5      | 65        | 0.194         | 0.211 | 4.67  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0            |      | 8.46  | 46.37 | 50          | 30        | 70        | 0.301         | 0.287 | 7.27  |      |
| Fluorene                   | 1    | 0            |      | 8.67  | 49.00 | 50          | 35        | 65        | 1.226         | 1.201 | 2.01  |      |
| 4-Chlorophenyl-phenylether | 1    | 0            |      | 8.66  | 48.47 | 50          | 28.5      | 72.5      | 0.565         | 0.548 | 3.05  |      |
| Diethylphthalate           | 1    | 0            |      | 8.55  | 48.72 | 50          | 23.5      | 65        | 1.199         | 1.168 | 2.56  |      |
| 4-Nitroaniline             | 1    | 0            |      | 8.67  | 47.74 | 50          | 30        | 70        | 0.327         | 0.336 | 4.51  |      |
| Atrazine                   | 1    | 0            |      | 9.30  | 46.23 | 50          | 5         | 70        | 0.360         | 0.333 | 7.54  |      |
| Phenanthrene-d10           | 1    | 0            | I    | 9.61  | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0            |      | 8.70  | 52.73 | 50          | 28        | 65        | 0.087         | 0.097 | 5.45  |      |
| n-Nitrosodiphenylamine     | 1    | 0            |      | 8.77  | 48.65 | 50          | 30        | 70        | 0.621         | 0.604 | 2.70  |      |
| 2,4,6-Tribromophenol       | 1    | 0            | S    | 8.90  | 44.17 | 50          | **        |           | 0.091         | 0.083 | 11.65 |      |
| 1,2-Diphenylhydrazine      | 1    | 0            |      | 8.82  | 49.42 | 50          | 30        | 70        | 0.708         | 0.700 | 1.17  |      |
| 4-Bromophenyl-phenylether  | 1    | 0            |      | 9.14  | 45.93 | 50          | 35        | 65        | 0.197         | 0.181 | 8.13  |      |
| Hexachlorobenzene          | 1    | 0            |      | 9.21  | 46.01 | 50          | 19        | 71        | 0.200         | 0.184 | 7.97  |      |
| N-Octadecane               | 1    | 0            |      | 9.49  | 51.02 | 50          | 30        | 70        | 0.381         | 0.389 | 2.05  |      |
| Pentachlorophenol          | 1    | 0            |      | 9.41  | 47.70 | 50          | 21        | 76        | 0.122         | 0.112 | 4.61  |      |
| Phenanthrene               | 1    | 0            |      | 9.64  | 48.23 | 50          | 33.5      | 65        | 1.081         | 1.043 | 3.53  |      |
| Anthracene                 | 1    | 0            |      | 9.69  | 48.08 | 50          | 29        | 65        | 1.096         | 1.054 | 3.83  |      |
| Carbazole                  | 1    | 0            |      | 9.86  | 47.88 | 50          | 30        | 70        | 1.001         | 0.959 | 4.25  |      |
| Di-n-butylphthalate        | 1    | 0            |      | 10.25 | 48.22 | 50          | 26        | 65        | 1.141         | 1.101 | 3.56  |      |
| Fluoranthene               | 1    | 0            |      | 10.96 | 48.04 | 50          | 23.5      | 65        | 1.120         | 1.076 | 3.92  |      |
| Chrysene-d12               | 1    | 0            | I    | 12.64 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0            |      | 11.22 | 49.86 | 50          | 35        | 65        | 1.158         | 1.155 | 0.29  |      |
| Benzidine                  | 1    | 0            |      | 11.11 | 37.67 | 50          | 2.5       | 75        | 0.347         | 0.297 | 24.65 |      |
| Terphenyl-d14              | 1    | 0            | S    | 11.40 | 24.17 | 25          | **        |           | 0.686         | 0.664 | 3.31  |      |
| 4,4'-DDE                   | 1    | 0            |      | 11.35 | 48.87 |             | **        |           | 0.240         |       |       |      |
| 4,4'-DDD                   | 1    | 0            |      | 11.74 | 48.38 |             | **        |           | 0.408         |       |       |      |
| Butylbenzylphthalate       | 1    | 0            |      | 12.00 | 44.69 | 50          | 21.5      | 70        | 0.509         | 0.474 | 10.62 |      |
| 4,4'-DDT                   | 1    | 0            |      | 12.10 | 56.69 |             | **        |           | 0.309         |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0            |      | 12.61 | 47.82 | 50          | 9         | 106.5     | 0.316         | 0.328 | 4.36  |      |
| Benzo[a]anthracene         | 1    | 0            |      | 12.63 | 48.55 | 50          | 21        | 66.5      | 1.100         | 1.068 | 2.90  |      |
| Chrysene                   | 1    | 0            |      | 12.68 | 50.92 | 50          | 22        | 70        | 1.013         | 1.032 | 1.85  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0            |      | 12.70 | 45.74 | 50          | 21.5      | 68.5      | 0.688         | 0.662 | 8.52  |      |
| Perylene-d12               | 1    | 0            | I    | 14.24 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0            |      | 13.45 | 41.18 | 50          | 10.5      | 66        | 1.287         | 1.157 | 17.63 |      |
| Benzo[b]fluoranthene       | 1    | 0            |      | 13.84 | 49.41 | 50          | 21        | 70        | 1.146         | 1.133 | 1.18  |      |
| Benzo[k]fluoranthene       | 1    | 0            |      | 13.87 | 50.97 | 50          | 12.5      | 73        | 1.101         | 1.122 | 1.94  |      |
| Benzo[a]pyrene             | 1    | 0            |      | 14.18 | 49.49 | 50          | 16        | 74        | 1.085         | 1.074 | 1.02  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0            |      | 15.50 | 49.70 | 50          | 6.5       | 75.5      | 1.160         | 1.153 | 0.60  |      |
| Dibenzo[a,h]anthracene     | 1    | 0            |      | 15.52 | 50.00 | 50          | 6.5       | 100       | 0.966         | 0.966 | 0.00  |      |
| Benzo[g,h,i]perylene       | 1    | 0            |      | 15.85 | 51.01 | 50          | 6.5       | 97.5      | 0.972         | 0.992 | 2.01  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 2 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

# Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 9:41:00

Data File: 7M95305.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.686         | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.944         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
C1-Compound %Diff exceeds limits

Page 3 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 7M95305.D  
Acq On : 10/19/18 09:41

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/19/18 10:02  
Qt Upd On: 10/17/18 08:02

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| -----                          |        |      |            |         |       |          |
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.504  | 96   | 80477      | 40.00   | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 130844     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.757  | 136  | 485842     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.172  | 164  | 276201     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 477980     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.644 | 240  | 456743     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.241 | 264  | 394976     | 40.00   | ng    | -0.03    |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.534  | 112  | 203632     | 47.17   | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 47.17%  |       |          |
| 16) Phenol-d5                  | 5.421  | 99   | 292561     | 47.84   | ng    | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery = | 47.84%  |       |          |
| 32) Nitrobenzene-d5            | 6.190  | 128  | 36227      | 23.75   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 47.50%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.590  | 172  | 213156     | 24.31   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.62%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 49598      | 44.17   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 44.17%  |       |          |
| 94) Terphenyl-d14              | 11.404 | 244  | 189440     | 24.17   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.34%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
|                                |        |      |            |         |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 96384      | 50.9848 | ng    | 90       |
| 9) Pyridine                    | 2.964  | 79   | 244852     | 48.8535 | ng    | 62       |
| 10) N-Nitrosodimethylamine     | 2.899  | 74   | 143652     | 49.2434 | ng    | 67       |
| 12) Benzaldehyde               | 5.362  | 77   | 106056     | 47.2617 | ng    | 71       |
| 13) Aniline                    | 5.458  | 93   | 288477     | 50.6173 | ng    | 79       |
| 14) Pentachloroethane          | 5.501  | 117  | 71469      | 49.0138 | ng    | 85       |
| 15) bis(2-Chloroethyl)ether    | 5.517  | 93   | 222534     | 50.4489 | ng    | 75       |
| 17) Phenol                     | 5.437  | 94   | 296541     | 48.8331 | ng    | 77       |
| 18) 2-Chlorophenol             | 5.560  | 128  | 213961     | 47.4117 | ng    | 77       |
| 19) N-Decane                   | 5.619  | 57   | 189295     | 48.6168 | ng    | 85       |
| 20) 1,3-Dichlorobenzene        | 5.693  | 146  | 234987     | 48.3989 | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 234251     | 49.0580 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.880  | 146  | 224829     | 49.8390 | ng    | 96       |
| 24) Benzyl alcohol             | 5.854  | 108  | 133246     | 46.2164 | ng    | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.971  | 45   | 222417     | 50.5071 | ng    | 95       |
| 26) 2-Methylphenol             | 5.945  | 108  | 191226     | 48.4943 | ng    | 96       |
| 27) Acetophenone               | 6.073  | 105  | 289184     | 51.3080 | ng    | 69       |
| 28) Hexachloroethane           | 6.164  | 117  | 88209      | 50.4780 | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 135678     | 49.5442 | ng    | 91       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 196365     | 49.8929 | ng    | 99       |
| 33) Nitrobenzene               | 6.206  | 77   | 205567     | 50.6296 | ng    | 75       |
| 34) Isophorone                 | 6.399  | 82   | 365068     | 48.6970 | ng    | 81       |
| 35) 2-Nitrophenol              | 6.457  | 139  | 106770     | 49.7257 | ng    | 81       |
| 36) 2,4-Dimethylphenol         | 6.489  | 107  | 194966     | 48.2940 | ng    | 85       |
| 37) Benzoic Acid               | 6.554  | 105  | 142782     | 36.2639 | ng    | 39       |
| 38) bis(2-Chloroethoxy)met...  | 6.564  | 93   | 255258     | 50.2905 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.644  | 162  | 164081     | 48.3228 | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.714  | 180  | 181488     | 47.9143 | ng    | 96       |
| 41) Naphthalene                | 6.773  | 128  | 632784     | 48.8437 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 237082m    | 49.0449 | ng    |          |
| 43) Hexachlorobutadiene        | 6.869  | 225  | 91924      | 47.8534 | ng    | 97       |
| 44) Caprolactam                | 7.066  | 113  | 64713      | 45.8136 | ng    | 58       |
| 45) 4-Chloro-3-methylphenol    | 7.168  | 107  | 160628     | 47.4810 | ng    | 76       |
| 46) 2-Methylnaphthalene        | 7.307  | 142  | 415354     | 49.1549 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.382  | 142  | 401053     | 48.8054 | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.307  | 142  | 816541m    | 97.9532 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.675  | 154  | 478398     | 48.5550 | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.440  | 216  | 175520     | 48.1113 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.435  | 237  | 79610      | 46.1700 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.526  | 196  | 110992     | 46.7786 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 118721     | 48.5722 | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.697  | 162  | 367120     | 48.9147 | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.975  | 156  | 324445     | 49.7961 | ng    | 87       |
| 58) Dimethylnaphthalenes (...) | 7.975  | 156  | 324445     | 49.7961 | ng    | 87       |
| 59) Diphenyl Ether             | 7.761  | 170  | 272436     | 48.7824 | ng    | 80       |
| 60) 2-Nitroaniline             | 7.766  | 65   | 114337     | 50.8840 | ng    | 63       |
| 61) Coumarin                   | 7.953  | 146  | 153259     | 48.9710 | ng    | 83       |
| 62) Acenaphthylene             | 8.049  | 152  | 545767     | 48.6957 | ng    | 99       |
| 63) Dimethylphthalate          | 7.921  | 163  | 400932     | 48.6671 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.969  | 165  | 93852      | 52.7249 | ng    | 62       |
| 65) Acenaphthene               | 8.204  | 153  | 378155     | 49.3167 | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95305.D Sam Mult : 1 Vial# : 2 Qt On : 10/19/18 10:02  
 Acq On : 10/19/18 09:41 Misc : A,BNA Qt Upd On: 10/17/18 08:02

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.119  | 138  | 108652   | 55.0878 | ng    | 71       |
| 67) 2,4-Dinitrophenol          | 8.204  | 184  | 43368    | 52.6660 | ng    | 68       |
| 68) Dibenzofuran               | 8.354  | 168  | 518215   | 47.9339 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.322  | 165  | 123631   | 49.1925 | ng    | 64       |
| 70) 4-Nitrophenol              | 8.242  | 65   | 72722    | 52.3342 | ng    | 84       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.461  | 232  | 98967    | 46.3674 | ng    | 85       |
| 72) Fluorene                   | 8.674  | 166  | 414810   | 48.9952 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.664  | 204  | 189081   | 48.4732 | ng    | 86       |
| 74) Diethylphthalate           | 8.546  | 149  | 403262   | 48.7221 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.669  | 138  | 115871   | 47.7439 | ng    | 72       |
| 76) Atrazine                   | 9.299  | 200  | 115042   | 46.2319 | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.701  | 198  | 58019    | 52.7255 | ng    | 63       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 361011   | 48.6505 | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.819  | 77   | 417951   | 49.4167 | ng    | 78       |
| 82) 4-Bromophenyl-phenylether  | 9.145  | 248  | 108055   | 45.9334 | ng    | 83       |
| 83) Hexachlorobenzene          | 9.214  | 284  | 109945   | 46.0129 | ng    | 72       |
| 84) N-Octadecane               | 9.492  | 57   | 232220   | 51.0229 | ng    | 67       |
| 85) Pentachlorophenol          | 9.406  | 266  | 66927    | 47.6953 | ng    | 99       |
| 86) Phenanthrene               | 9.636  | 178  | 622961   | 48.2330 | ng    | 100      |
| 87) Anthracene                 | 9.689  | 178  | 629707   | 48.0840 | ng    | 99       |
| 88) Carbazole                  | 9.855  | 167  | 572682   | 47.8771 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.245 | 149  | 657632   | 48.2205 | ng    | 97       |
| 90) Fluoranthene               | 10.956 | 202  | 642747   | 48.0405 | ng    | 95       |
| 92) Pyrene                     | 11.217 | 202  | 659301   | 49.8568 | ng    | 92       |
| 93) Benzidine                  | 11.105 | 184  | 169297   | 37.6731 | ng    | 90       |
| 95) 4,4'-DDE                   | 11.346 | 246  | 133793   | 48.8729 | ng    | 96       |
| 96) 4,4'-DDD                   | 11.741 | 235  | 225360   | 48.3847 | ng    | 94       |
| 97) Butylbenzylphthalate       | 11.997 | 149  | 270614   | 44.6885 | ng    | 74       |
| 98) 4,4'-DDT                   | 12.099 | 235  | 197616   | 56.6942 | ng    | 96       |
| 99) 3,3'-Dichlorobenzidine     | 12.606 | 252  | 187418   | 47.8188 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.633 | 228  | 609964   | 48.5484 | ng    | 99       |
| 101) Chrysene                  | 12.676 | 228  | 589180   | 50.9243 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.703 | 149  | 377798   | 45.7396 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.445 | 149  | 571060   | 41.1835 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.840 | 252  | 559385   | 49.4109 | ng    | 97       |
| 106) Benzo[k]fluoranthene      | 13.867 | 252  | 554110m  | 50.9685 | ng    |          |
| 107) Benzo[a]pyrene            | 14.182 | 252  | 530217   | 49.4907 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.496 | 276  | 569241   | 49.7025 | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.518 | 278  | 476836   | 49.9987 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.849 | 276  | 489645   | 51.0053 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



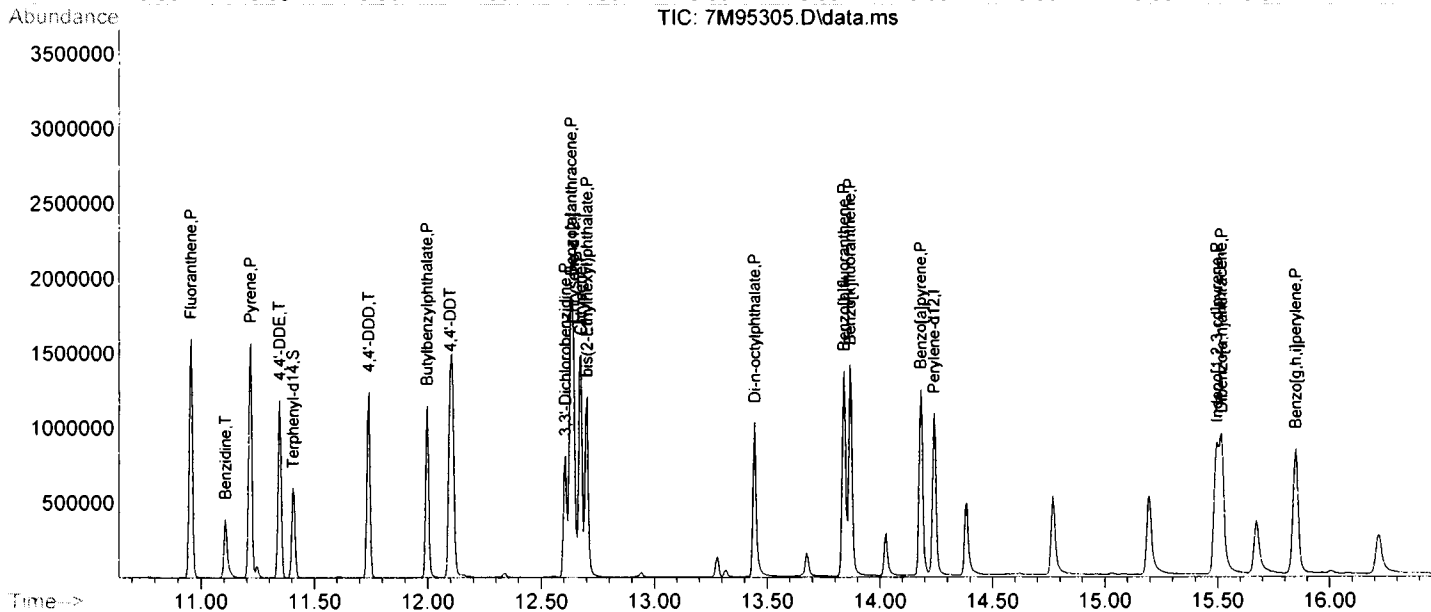
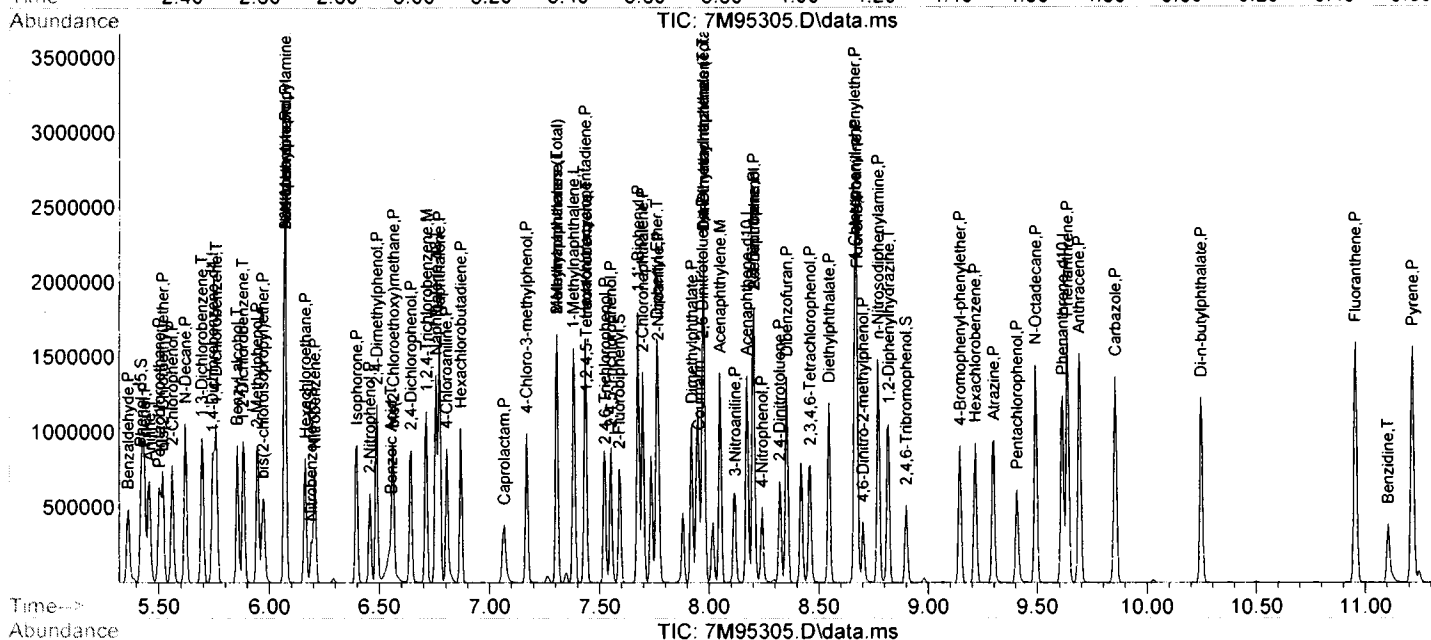
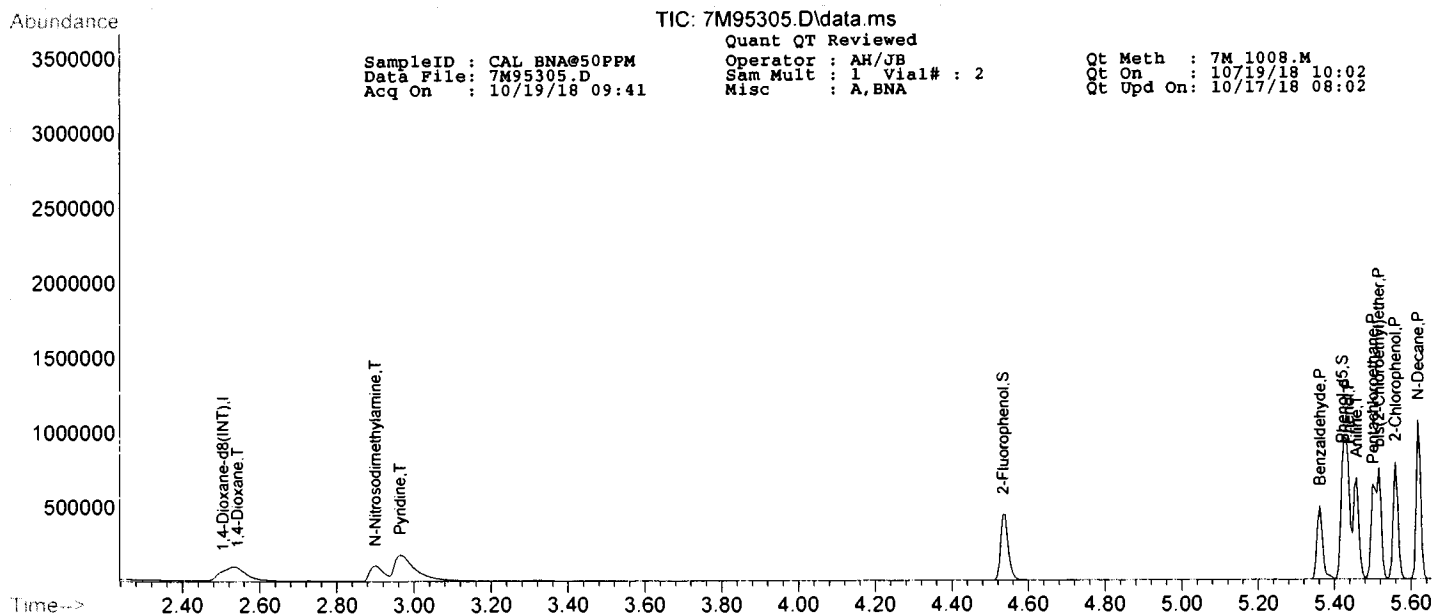
TIC: 7M95305.D\data.ms

Quant QT Reviewed

SampleID : CAL BNA@50PPM  
Data File: 7M95305.D  
Acq On : 10/19/18 09:41

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

```
Qt Meth   : 7M 1008.M
Qt On      : 10719/18 10:02
Qt Upd On : 10/17/18 08:02
```



## Form7

8101509 0463

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 4:02:00 P

Data File: 9M88660.D  
Method: EPA 8270D

Instrument: GCMS 9

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|-------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.56 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.59 | 48.50 | 50       | **     |        | 0.983      | 0.953 | 3.01  |      |
| Pyridine                    | 1    | 0         |      | 3.08 | 48.87 | 50       | **     |        | 2.524      | 2.467 | 2.25  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.98 | 53.02 | 50       | **     |        | 1.448      | 1.535 | 6.04  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.60 | 51.94 | 50       | **     |        | 2.346      | 2.438 | 3.89  |      |
| Benzaldehyde                | 1    | 0         |      | 5.42 | 55.70 | 50       | 20     | 0.01   | 1.310      | 1.460 | 11.41 |      |
| Aniline                     | 1    | 0         |      | 5.51 | 58.06 | 50       | **     |        | 3.018      | 3.505 | 16.13 |      |
| Pentachloroethane           | 1    | 0         |      | 5.55 | 53.54 | 50       | **     | 0.05   | 0.858      | 0.918 | 7.08  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.57 | 52.77 | 50       | 20     | 0.7    | 2.446      | 2.471 | 5.54  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.49 | 52.20 | 50       | **     |        | 3.377      | 3.526 | 4.40  |      |
| Phenol                      | 1    | 0         |      | 5.50 | 53.00 | 50       | 20     | 0.8    | 3.302      | 3.500 | 6.00  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.62 | 51.10 | 50       | 20     | 0.8    | 2.617      | 2.675 | 2.20  |      |
| N-Decane                    | 1    | 0         |      | 5.66 | 57.06 | 50       | **     | 0.05   | 2.970      | 3.389 | 14.12 |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.75 | 51.68 | 50       | **     |        | 2.864      | 2.960 | 3.36  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.79 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.81 | 48.70 | 50       | 20     |        | 1.491      | 1.452 | 2.60  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.93 | 48.00 | 50       | **     |        | 1.403      | 1.347 | 4.00  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.91 | 50.28 | 50       | **     |        | 0.846      | 0.851 | 0.56  |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 6.02 | 58.73 | 50       | 20     | 0.01   | 1.831      | 2.150 | 17.47 |      |
| 2-Methylphenol              | 1    | 0         |      | 6.01 | 50.40 | 50       | 20     | 0.7    | 1.213      | 1.148 | 0.80  |      |
| Acetophenone                | 1    | 0         |      | 6.12 | 49.62 | 50       | 20     | 0.01   | 1.907      | 1.892 | 0.75  |      |
| Hexachloroethane            | 1    | 0         |      | 6.21 | 49.85 | 50       | 20     | 0.3    | 0.572      | 0.570 | 0.30  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.12 | 52.82 | 50       | 20     | 0.5    | 0.971      | 1.026 | 5.64  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.13 | 48.96 | 50       | 20     |        | 1.275      | 1.249 | 2.09  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.81 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.25 | 24.20 | 25       | **     |        | 0.127      | 0.123 | 3.20  |      |
| Nitrobenzene                | 1    | 0         |      | 6.26 | 52.41 | 50       | 20     | 0.2    | 0.363      | 0.380 | 4.82  |      |
| Isophorone                  | 1    | 0         |      | 6.45 | 51.22 | 50       | 20     | 0.4    | 0.630      | 0.645 | 2.44  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.51 | 46.61 | 50       | 20     | 0.1    | 0.197      | 0.184 | 6.77  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.54 | 51.41 | 50       | 20     | 0.2    | 0.356      | 0.362 | 2.82  |      |
| Benzoic Acid                | 1    | 0         |      | 6.62 | 28.40 | 50       | **     |        | 0.346      | 0.226 | 43.21 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.61 | 48.70 | 50       | 20     | 0.3    | 0.389      | 0.379 | 2.60  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.70 | 48.04 | 50       | 20     | 0.2    | 0.294      | 0.283 | 3.91  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.76 | 47.34 | 50       | **     |        | 0.326      | 0.309 | 5.31  |      |
| Naphthalene                 | 1    | 0         |      | 6.82 | 48.71 | 50       | 20     | 0.7    | 1.042      | 0.965 | 2.59  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.86 | 46.36 | 50       | 20     | 0.01   | 0.355      | 0.374 | 7.28  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.91 | 51.03 | 50       | 20     | 0.01   | 0.194      | 0.193 | 2.06  |      |
| Caprolactam                 | 1    | 0         |      | 7.13 | 47.95 | 50       | 20     | 0.01   | 0.114      | 0.109 | 4.10  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.23 | 49.62 | 50       | 20     | 0.2    | 0.304      | 0.301 | 0.75  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.36 | 47.48 | 50       | **     | 0.4    | 0.726      | 0.690 | 5.04  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.44 | 47.99 | 50       | **     | 0.4    | 0.700      | 0.672 | 4.03  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.36 | 95.44 | 100      | **     |        |            | 0.681 | 4.56  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.73 | 47.62 | 50       | 20     | 0.01   | 0.855      | 0.814 | 4.77  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.24 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.49 | 47.20 | 50       | 20     | 0.01   | 0.592      | 0.559 | 5.60  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.48 | 8.42  | 50       | 20     | 0.05   | 0.199      | 0.030 | 83.16 | C1   |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.58 | 47.42 | 50       | 20     | 0.2    | 0.365      | 0.346 | 5.16  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.62 | 47.72 | 50       | 20     | 0.2    | 0.391      | 0.373 | 4.55  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.65 | 23.32 | 25       | **     |        | 1.291      | 1.204 | 6.74  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.75 | 47.63 | 50       | 20     | 0.8    | 1.121      | 1.068 | 4.75  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 8.04 | 47.20 | 50       | **     |        | 0.974      | 0.920 | 5.59  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 8.04 | 47.20 | 50       | 20     |        |            | 0.920 | 5.59  |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

C1-Compound %Diff exceeds limits

Page 1 of 3

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0464

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/19/2018 4:02:00 P

Data File: 9M88660.D  
Method: EPA 8270D

Instrument: GCMS 9

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.82  | 46.72 | 50       | **     |        | 0.857      | 0.801 | 6.56  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.83  | 57.80 | 50       | 20     | 0.01   | 0.408      | 0.472 | 15.60 |      |
| Coumarin                   | 1    | 0         |      | 8.02  | 47.09 |          | **     |        | 0.446      |       |       |      |
| Acenaphthylene             | 1    | 0         |      | 8.11  | 47.01 | 50       | 20     | 0.9    | 1.630      | 1.532 | 5.98  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.98  | 48.51 | 50       | 20     | 0.01   | 1.291      | 1.252 | 2.97  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 8.03  | 47.85 | 50       | 20     | 0.2    | 0.312      | 0.299 | 4.31  |      |
| Acenaphthene               | 1    | 0         |      | 8.27  | 46.25 | 50       | 20     | 0.9    | 1.148      | 1.062 | 7.50  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.18  | 51.34 | 50       | 20     | 0.01   | 0.285      | 0.305 | 2.68  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.29  | 33.08 | 50       | 20     | 0.01   | 0.170      | 0.102 | 33.84 | C1   |
| Dibenzofuran               | 1    | 0         |      | 8.42  | 48.16 | 50       | 20     | 0.8    | 1.628      | 1.502 | 3.68  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.40  | 49.44 | 50       | 20     | 0.2    | 0.403      | 0.394 | 1.12  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.33  | 50.41 | 50       | 20     | 0.01   | 0.230      | 0.240 | 0.83  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.53  | 46.07 | 50       | 20     | 0.01   | 0.341      | 0.314 | 7.87  |      |
| Fluorene                   | 1    | 0         |      | 8.74  | 46.38 | 50       | 20     | 0.9    | 1.348      | 1.250 | 7.25  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.73  | 49.01 | 50       | 20     | 0.4    | 0.661      | 0.618 | 1.98  |      |
| Diethylphthalate           | 1    | 0         |      | 8.61  | 49.69 | 50       | 20     | 0.01   | 1.297      | 1.289 | 0.62  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.75  | 49.74 | 50       | 20     | 0.01   | 0.359      | 0.355 | 0.53  |      |
| Atrazine                   | 1    | 0         |      | 9.37  | 49.47 | 50       | 20     | 0.01   | 0.430      | 0.412 | 1.06  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.70  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.79  | 40.14 | 50       | 20     | 0.01   | 0.133      | 0.102 | 19.72 |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.84  | 47.16 | 50       | 20     | 0.01   | 0.661      | 0.623 | 5.69  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.98  | 48.97 | 50       | **     |        | 0.106      | 0.100 | 2.06  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.89  | 52.69 | 50       | **     |        | 0.715      | 0.754 | 5.38  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.22  | 47.62 | 50       | 20     | 0.1    | 0.214      | 0.204 | 4.75  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.29  | 46.85 | 50       | 20     | 0.1    | 0.229      | 0.214 | 6.31  |      |
| N-Octadecane               | 1    | 0         |      | 9.56  | 54.02 | 50       | **     | 0.05   | 0.508      | 0.549 | 8.04  |      |
| Pentachlorophenol          | 1    | 0         |      | 9.50  | 42.69 | 50       | 20     | 0.05   | 0.141      | 0.112 | 14.61 |      |
| Phenanthrene               | 1    | 0         |      | 9.72  | 48.54 | 50       | 20     | 0.7    | 1.094      | 1.030 | 2.93  |      |
| Anthracene                 | 1    | 0         |      | 9.78  | 46.93 | 50       | 20     | 0.7    | 1.133      | 1.063 | 6.15  |      |
| Carbazole                  | 1    | 0         |      | 9.95  | 47.79 | 50       | 20     | 0.01   | 1.035      | 0.990 | 4.42  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.33 | 50.68 | 50       | 20     | 0.01   | 1.301      | 1.268 | 1.36  |      |
| Fluoranthene               | 1    | 0         |      | 11.06 | 47.65 | 50       | 20     | 0.6    | 1.246      | 1.188 | 4.70  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.76 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.32 | 47.05 | 50       | 20     | 0.6    | 1.116      | 1.050 | 5.90  |      |
| Benzidine                  | 1    | 0         |      | 11.21 | 43.33 | 50       | **     |        | 0.406      | 0.352 | 13.33 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.50 | 23.76 | 25       | **     |        | 0.677      | 0.644 | 4.96  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.44 | 50.27 |          | **     |        | 0.248      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.84 | 49.81 |          | **     |        | 0.432      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 12.09 | 49.45 | 50       | 20     | 0.01   | 0.514      | 0.509 | 1.09  |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.20 | 47.77 |          | **     |        | 0.391      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.71 | 52.69 | 50       | 20     | 0.01   | 0.341      | 0.395 | 5.38  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.75 | 47.36 | 50       | 20     | 0.8    | 1.099      | 1.041 | 5.27  |      |
| Chrysene                   | 1    | 0         |      | 12.79 | 49.11 | 50       | 20     | 0.7    | 1.060      | 1.015 | 1.78  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.79 | 49.78 | 50       | 20     | 0.01   | 0.744      | 0.741 | 0.43  |      |
| Perylene-d12               | 1    | 0         | I    | 14.38 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.54 | 49.95 | 50       | 20     | 0.01   | 1.386      | 1.338 | 0.10  |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.97 | 46.34 | 50       | 20     | 0.7    | 1.129      | 1.047 | 7.33  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.99 | 46.99 | 50       | 20     | 0.7    | 1.148      | 1.079 | 6.01  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.32 | 47.31 | 50       | 20     | 0.7    | 1.112      | 1.052 | 5.39  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.71 | 49.43 | 50       | 20     | 0.5    | 1.213      | 1.199 | 1.15  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.73 | 48.19 | 50       | 20     | 0.4    | 1.026      | 0.989 | 3.61  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 16.09 | 48.71 | 50       | 20     | 0.5    | 1.003      | 0.977 | 2.58  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 2 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0465

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/19/2018 4:02:00 P

Data File: 9M88660.D  
 Method: EPA 8270D

Instrument: GCMS 9

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 4-Methylphenol                 | 1    | 100          |      | 0.00 | 0.00 | 50          | **        | 0.6       |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| 1,4-Dioxane-d8                 | 1    | 100          |      | 0.00 | 0.00 | 40          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,2'-oxybis-(1-Chloropropane)  | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 1,4-Dioxane-d8-Surro           | 1    | 100          |      | 0.00 | 0.00 | 40          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.974         | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.714         | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 3 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 9M88660.D  
Acq On : 10/19/18 16:02

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/19/18 16:20  
Qt Upd On: 10/08/18 16:51

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-1918\  
Qt Path : G:\GCMSData\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.558  | 96   | 21198      | 40.00   | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.794  | 152  | 44404      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.806  | 136  | 172643     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.235  | 164  | 106798     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.696  | 188  | 184072     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.759 | 240  | 211692     | 40.00   | ng    | 0.01     |
| 103) Perylene-d12              | 14.381 | 264  | 191500     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.601  | 112  | 64588      | 51.94   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 51.94%  |       |          |
| 16) Phenol-d5                  | 5.487  | 99   | 93423      | 52.20   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 52.20%  |       |          |
| 32) Nitrobenzene-d5            | 6.246  | 128  | 13305      | 24.20   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.40%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.647  | 172  | 80350      | 23.32   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 46.64%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.977  | 330  | 23054      | 48.97   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.97%  |       |          |
| 94) Terphenyl-d14              | 11.503 | 244  | 85173      | 23.76   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 47.52%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.595  | 88   | 25252      | 48.4956 | ng    | 99       |
| 9) Pyridine                    | 3.075  | 79   | 65366      | 48.8749 | ng    | 90       |
| 10) N-Nitrosodimethylamine     | 2.984  | 74   | 40678      | 53.0203 | ng    | 96       |
| 12) Benzaldehyde               | 5.416  | 77   | 38679      | 55.7034 | ng    | 88       |
| 13) Aniline                    | 5.513  | 93   | 92871      | 58.0636 | ng    | 88       |
| 14) Pentachloroethane          | 5.553  | 117  | 24336      | 53.5410 | ng    | 74       |
| 15) bis(2-Chloroethyl) ether   | 5.570  | 93   | 65471      | 52.7690 | ng    | 91       |
| 17) Phenol                     | 5.499  | 94   | 92743      | 52.9996 | ng    | 96       |
| 18) 2-Chlorophenol             | 5.618  | 128  | 70881      | 51.0993 | ng    | 84       |
| 19) N-Decane                   | 5.664  | 57   | 89797      | 57.0615 | ng    | 71       |
| 20) 1,3-Dichlorobenzene        | 5.746  | 146  | 78429      | 51.6822 | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.809  | 146  | 80580      | 48.6976 | ng    | 93       |
| 23) 1,2-Dichlorobenzene        | 5.934  | 146  | 74767      | 47.9998 | ng    | 97       |
| 24) Benzyl alcohol             | 5.911  | 108  | 47234      | 50.2814 | ng    | 87       |
| 25) bis(2-chloroisopropyl)...  | 6.022  | 45   | 119355     | 58.7327 | ng    | 93       |
| 26) 2-Methylphenol             | 6.007  | 108  | 63713      | 50.3983 | ng    | 97       |
| 27) Acetophenone               | 6.124  | 105  | 105035     | 49.6249 | ng    | 79       |
| 28) Hexachloroethane           | 6.212  | 117  | 31647      | 49.8488 | ng    | 91       |
| 29) N-Nitroso-di-n-propyla...  | 6.124  | 70   | 56944      | 52.8225 | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.130  | 108  | 69305      | 48.9572 | ng    | 98       |
| 33) Nitrobenzene               | 6.260  | 77   | 81998      | 52.4091 | ng    | 91       |
| 34) Isophorone                 | 6.448  | 82   | 139283     | 51.2197 | ng    | 92       |
| 35) 2-Nitrophenol              | 6.510  | 139  | 39711      | 46.6134 | ng    | 92       |
| 36) 2,4-Dimethylphenol         | 6.542  | 107  | 78163      | 51.4081 | ng    | 96       |
| 37) Benzoic Acid               | 6.615  | 105  | 48682      | 28.3975 | ng    | 91       |
| 38) bis(2-Chloroethoxy)met...  | 6.610  | 93   | 81752      | 48.7013 | ng    | 94       |
| 39) 2,4-Dichlorophenol         | 6.698  | 162  | 60984      | 48.0445 | ng    | 90       |
| 40) 1,2,4-Trichlorobenzene     | 6.763  | 180  | 66649      | 47.3447 | ng    | 98       |
| 41) Naphthalene                | 6.823  | 128  | 208248     | 48.7061 | ng    | 98       |
| 42) 4-Chloroaniline            | 6.857  | 127  | 80772      | 46.3583 | ng    | 88       |
| 43) Hexachlorobutadiene        | 6.914  | 225  | 41635      | 51.0314 | ng    | 96       |
| 44) Caprolactam                | 7.130  | 113  | 23619      | 47.9506 | ng    | 74       |
| 45) 4-Chloro-3-methylphenol    | 7.229  | 107  | 65015      | 49.6248 | ng    | 95       |
| 46) 2-Methylnaphthalene        | 7.357  | 142  | 148870     | 47.4818 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.437  | 142  | 145054     | 47.9875 | ng    | 92       |
| 48) Methylnaphthalenes (To...  | 7.357  | 142  | 293911m    | 95.4368 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.732  | 154  | 175738     | 47.6152 | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.493  | 216  | 74655      | 47.1998 | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.485  | 237  | 3976       | 8.4176  | ng    | 86       |
| 53) 2,4,6-Trichlorophenol      | 7.582  | 196  | 46210      | 47.4193 | ng    | 97       |
| 54) 2,4,5-Trichlorophenol      | 7.619  | 196  | 49810      | 47.7244 | ng    | 95       |
| 56) 2-Chloronaphthalene        | 7.755  | 162  | 142529     | 47.6274 | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.036  | 156  | 122785     | 47.2048 | ng    | 93       |
| 58) Dimethylnaphthalenes (...) | 8.036  | 156  | 122785     | 47.2048 | ng    | 93       |
| 59) Diphenyl Ether             | 7.817  | 170  | 106893     | 46.7216 | ng    | 84       |
| 60) 2-Nitroaniline             | 7.832  | 65   | 63011      | 57.8023 | ng    | 75       |
| 61) Coumarin                   | 8.016  | 146  | 56071      | 47.0885 | ng    | 66       |
| 62) Acenaphthylene             | 8.113  | 152  | 204539     | 47.0099 | ng    | 98       |
| 63) Dimethylphthalate          | 7.977  | 163  | 167161     | 48.5149 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.033  | 165  | 39901      | 47.8474 | ng    | 72       |
| 65) Acenaphthene               | 8.266  | 153  | 141718     | 46.2511 | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 9M88660.D  
 Acq On : 10/19/18 16:02

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 9M\_1008.M  
 Qt On : 10/19/18 16:20  
 Qt Upd On: 10/08/18 16:51

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-1918\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.184  | 138  | 40763    | 51.3392 | ng    | 85       |
| 67) 2,4-Dinitrophenol          | 8.286  | 184  | 13646    | 33.0815 | ng    | 29       |
| 68) Dibenzofuran               | 8.420  | 168  | 200479   | 48.1617 | ng    | 93       |
| 69) 2,4-Dinitrotoluene         | 8.397  | 165  | 52579    | 49.4404 | ng    | 70       |
| 70) 4-Nitrophenol              | 8.329  | 65   | 31989    | 50.4131 | ng    | 76       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.531  | 232  | 41901    | 46.0671 | ng    | 88       |
| 72) Fluorene                   | 8.744  | 166  | 166921   | 46.3772 | ng    | 96       |
| 73) 4-Chlorophenyl-phenyle...  | 8.729  | 204  | 82519    | 49.0099 | ng    | 90       |
| 74) Diethylphthalate           | 8.607  | 149  | 172015   | 49.6879 | ng    | 98       |
| 75) 4-Nitroaniline             | 8.747  | 138  | 47355    | 49.7367 | ng    | 90       |
| 76) Atrazine                   | 9.375  | 200  | 55035    | 49.4694 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.786  | 198  | 23520    | 40.1377 | ng    | 41       |
| 79) n-Nitrosodiphenylamine     | 8.843  | 169  | 143393   | 47.1556 | ng    | 94       |
| 81) 1,2-Diphenylhydrazine      | 8.886  | 77   | 173448   | 52.6898 | ng    | 87       |
| 82) 4-Bromophenyl-phenylether  | 9.218  | 248  | 46874    | 47.6235 | ng    | 86       |
| 83) Hexachlorobenzene          | 9.295  | 284  | 49308    | 46.8472 | ng    | 73       |
| 84) N-Octadecane               | 9.562  | 57   | 126353   | 54.0206 | ng    | 92       |
| 85) Pentachlorophenol          | 9.497  | 266  | 25868    | 42.6941 | ng    | 96       |
| 86) Phenanthrene               | 9.721  | 178  | 236951   | 48.5367 | ng    | 99       |
| 87) Anthracene                 | 9.778  | 178  | 244676   | 46.9254 | ng    | 99       |
| 88) Carbazole                  | 9.946  | 167  | 227677   | 47.7912 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.329 | 149  | 291772   | 50.6822 | ng    | 98       |
| 90) Fluoranthene               | 11.057 | 202  | 273315   | 47.6515 | ng    | 85       |
| 92) Pyrene                     | 11.321 | 202  | 277892   | 47.0491 | ng    | 83       |
| 93) Benzidine                  | 11.207 | 184  | 93088    | 43.3333 | ng    | 82       |
| 95) 4,4'-DDE                   | 11.440 | 246  | 65877    | 50.2705 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.841 | 235  | 114006   | 49.8139 | ng    | 92       |
| 97) Butylbenzylphthalate       | 12.091 | 149  | 134645   | 49.4526 | ng    | 76       |
| 98) 4,4'-DDT                   | 12.196 | 235  | 98941    | 47.7657 | ng    | 96       |
| 99) 3,3'-Dichlorobenzidine     | 12.713 | 252  | 104468   | 52.6890 | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.747 | 228  | 275585   | 47.3640 | ng    | 98       |
| 101) Chrysene                  | 12.790 | 228  | 268589   | 49.1076 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.793 | 149  | 195951   | 49.7842 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.540 | 149  | 320320   | 49.9484 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.966 | 252  | 250510   | 46.3359 | ng    | 91       |
| 106) Benzo[k]fluoranthene      | 13.995 | 252  | 258374   | 46.9938 | ng    | 91       |
| 107) Benzo[a]pyrene            | 14.321 | 252  | 251787   | 47.3064 | ng    | 90       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.711 | 276  | 286968   | 49.4272 | ng    | 79       |
| 109) Dibenzo[a,h]anthracene    | 15.725 | 278  | 236803   | 48.1942 | ng    | 86       |
| 110) Benzo[g,h,i]perylene      | 16.089 | 276  | 233978   | 48.7076 | ng    | 72       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/22/2018 7:45:00

Data File: 10M71464.D  
Method: EPA 625.1

Instrument: GCMS 10

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc   | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|--------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.73 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.77 | 48.40  |             | **        |           | 0.964         |       |       |      |
| Pyridine                    | 1    | 0            |      | 3.25 | 52.00  | 50          | **        |           | 2.286         | 2.322 | 4.00  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 3.19 | 47.96  | 50          | **        |           | 1.333         | 1.279 | 4.09  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.71 | 46.92  | 50          | **        |           | 2.316         | 2.173 | 6.17  |      |
| Benzaldehyde                | 1    | 0            |      | 5.53 | 28.56  | 50          | **        |           | 1.115         | 0.637 | 42.89 |      |
| Aniline                     | 1    | 0            |      | 5.62 | 43.23  | 50          | **        |           | 2.883         | 2.803 | 13.54 |      |
| Pentachloroethane           | 1    | 0            |      | 5.66 | 47.90  | 50          | **        |           | 0.876         | 0.839 | 4.20  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.67 | 48.48  | 50          | 20        |           | 2.349         | 2.245 | 3.03  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.58 | 47.77  | 50          | **        |           | 3.134         | 2.994 | 4.47  |      |
| Phenol                      | 1    | 0            |      | 5.59 | 49.91  | 50          | 20        |           | 3.104         | 3.098 | 0.18  |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.72 | 47.92  | 50          | 20        |           | 2.592         | 2.485 | 4.16  |      |
| N-Decane                    | 1    | 0            |      | 5.75 | 48.77  | 50          | 20        |           | 2.035         | 1.985 | 2.45  |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.85 | 47.91  | 50          | 20        |           | 2.875         | 2.754 | 4.18  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.89 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.91 | 49.24  | 50          | 20        |           | 1.472         | 1.449 | 1.53  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 6.03 | 49.56  | 50          | 20        |           | 1.438         | 1.426 | 0.88  |      |
| Benzyl alcohol              | 1    | 0            |      | 6.01 | 48.40  | 50          | **        |           | 0.812         | 0.786 | 3.21  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 6.11 | 50.33  | 50          | 20        |           | 1.365         | 1.375 | 0.67  |      |
| 2-Methylphenol              | 1    | 0            |      | 6.09 | 48.49  | 50          | 20        |           | 1.163         | 1.128 | 3.03  |      |
| Acetophenone                | 1    | 0            |      | 6.22 | 49.46  | 50          | **        |           | 1.647         | 1.630 | 1.09  |      |
| Hexachloroethane            | 1    | 0            |      | 6.31 | 50.30  | 50          | 20        |           | 0.570         | 0.573 | 0.60  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.21 | 49.87  | 50          | **        |           | 0.768         | 0.766 | 0.26  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.21 | 51.95  | 50          | **        |           | 1.105         | 1.148 | 3.89  |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.90 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.34 | 25.50  | 25          | **        |           | 0.121         | 0.128 | 1.98  |      |
| Nitrobenzene                | 1    | 0            |      | 6.36 | 51.20  | 50          | 20        |           | 0.348         | 0.356 | 2.41  |      |
| Isophorone                  | 1    | 0            |      | 6.54 | 51.49  | 50          | 20        |           | 0.598         | 0.616 | 2.98  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.60 | 51.39  | 50          | 20        |           | 0.190         | 0.195 | 2.78  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.63 | 51.35  | 50          | 20        |           | 0.355         | 0.365 | 2.70  |      |
| Benzoic Acid                | 1    | 0            |      | 6.71 | 30.93  | 50          | **        |           | 0.296         | 0.162 | 38.14 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.70 | 54.91  | 50          | 20        |           | 0.375         | 0.412 | 9.82  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.79 | 52.20  | 50          | 20        |           | 0.310         | 0.323 | 4.40  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.85 | 52.89  | 50          | 20        |           | 0.336         | 0.355 | 5.77  |      |
| Naphthalene                 | 1    | 0            |      | 6.92 | 51.86  | 50          | **        |           | 1.083         | 1.100 | 3.72  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.95 | 59.09  | 50          | **        |           | 0.344         | 0.406 | 18.18 |      |
| Hexachlorobutadiene         | 1    | 0            |      | 7.00 | 49.61  | 50          | 20        |           | 0.188         | 0.187 | 0.78  |      |
| Caprolactam                 | 1    | 0            |      | 7.23 | 51.11  | 50          | **        |           | 0.112         | 0.111 | 2.22  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.31 | 50.01  | 50          | 20        |           | 0.284         | 0.284 | 0.01  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.45 | 50.38  | 50          | **        |           | 0.701         | 0.707 | 0.75  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.53 | 51.27  | 50          | **        |           | 0.690         | 0.707 | 2.53  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.53 | 101.87 | 100         | **        |           |               | 0.707 | 1.87  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.82 | 51.18  | 50          | **        |           | 0.871         | 0.892 | 2.36  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.33 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.58 | 49.96  | 50          | **        |           | 0.548         | 0.548 | 0.08  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.57 | 42.96  | 50          | **        |           | 0.188         | 0.173 | 14.08 |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.67 | 47.10  | 50          | 20        |           | 0.333         | 0.314 | 5.80  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.71 | 48.70  | 50          | **        |           | 0.354         | 0.345 | 2.60  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.74 | 24.06  | 25          | **        |           | 1.281         | 1.233 | 3.74  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.85 | 50.11  | 50          | 20        |           | 1.056         | 1.058 | 0.21  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 8.13 | 49.10  | 50          | **        |           | 0.872         | 0.856 | 1.80  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 8.13 | 49.10  |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF



Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/22/2018 7:45:00

Data File: 10M71464.D  
Method: EPA 625.1

Instrument: GCMS 10

| TxtCompd:                  | Col# | Multi<br>Num | Type | RT    | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|----------------------------|------|--------------|------|-------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0            |      | 7.91  | 50.75 | 50          | **        |           | 0.783         | 0.794 | 1.50  |      |
| 2-Nitroaniline             | 1    | 0            |      | 7.93  | 47.05 | 50          | **        |           | 0.375         | 0.353 | 5.90  |      |
| Coumarin                   | 1    | 0            |      | 8.12  | 51.04 |             | **        |           | 0.389         |       |       |      |
| Acenaphthylene             | 1    | 0            |      | 8.21  | 49.69 | 50          | 20        |           | 1.558         | 1.548 | 0.61  |      |
| Dimethylphthalate          | 1    | 0            |      | 8.06  | 49.00 | 50          | 20        |           | 1.234         | 1.209 | 2.01  |      |
| 2,6-Dinitrotoluene         | 1    | 0            |      | 8.13  | 48.57 | 50          | 20        |           | 0.257         | 0.249 | 2.86  |      |
| Acenaphthene               | 1    | 0            |      | 8.36  | 48.34 | 50          | 20        |           | 1.099         | 1.062 | 3.32  |      |
| 3-Nitroaniline             | 1    | 0            |      | 8.28  | 45.54 | 50          | **        |           | 0.280         | 0.283 | 8.92  |      |
| 2,4-Dinitrophenol          | 1    | 0            |      | 8.38  | 43.73 | 50          | 20        |           | 0.151         | 0.120 | 12.54 |      |
| Dibenzofuran               | 1    | 0            |      | 8.52  | 48.09 | 50          | **        |           | 1.584         | 1.527 | 3.82  |      |
| 2,4-Dinitrotoluene         | 1    | 0            |      | 8.49  | 44.88 | 50          | 20        |           | 0.380         | 0.362 | 10.24 |      |
| 4-Nitrophenol              | 1    | 0            |      | 8.41  | 39.17 | 50          | 20        |           | 0.204         | 0.172 | 21.66 | C1   |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0            |      | 8.63  | 45.75 | 50          | **        |           | 0.308         | 0.282 | 8.49  |      |
| Fluorene                   | 1    | 0            |      | 8.84  | 47.24 | 50          | 20        |           | 1.260         | 1.190 | 5.52  |      |
| 4-Chlorophenyl-phenylether | 1    | 0            |      | 8.82  | 48.37 | 50          | 20        |           | 0.601         | 0.581 | 3.26  |      |
| Diethylphthalate           | 1    | 0            |      | 8.70  | 47.93 | 50          | 20        |           | 1.219         | 1.169 | 4.15  |      |
| 4-Nitroaniline             | 1    | 0            |      | 8.85  | 46.33 | 50          | **        |           | 0.325         | 0.317 | 7.34  |      |
| Atrazine                   | 1    | 0            |      | 9.47  | 45.51 | 50          | **        |           | 0.409         | 0.372 | 8.99  |      |
| Phenanthrene-d10           | 1    | 0            | I    | 9.80  | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0            |      | 8.88  | 50.12 | 50          | 20        |           | 0.114         | 0.115 | 0.23  |      |
| n-Nitrosodiphenylamine     | 1    | 0            |      | 8.94  | 50.40 | 50          | **        |           | 0.603         | 0.608 | 0.79  |      |
| 2,4,6-Tribromophenol       | 1    | 0            | S    | 9.08  | 42.47 | 50          | **        |           | 0.089         | 0.081 | 15.06 |      |
| 1,2-Diphenylhydrazine      | 1    | 0            |      | 8.98  | 52.90 | 50          | **        |           | 0.736         | 0.778 | 5.80  |      |
| 4-Bromophenyl-phenylether  | 1    | 0            |      | 9.32  | 49.29 | 50          | 20        |           | 0.185         | 0.183 | 1.42  |      |
| Hexachlorobenzene          | 1    | 0            |      | 9.39  | 46.27 | 50          | **        |           | 0.199         | 0.184 | 7.47  |      |
| N-Octadecane               | 1    | 0            |      | 9.64  | 51.29 | 50          | **        |           | 0.338         | 0.347 | 2.59  |      |
| Pentachlorophenol          | 1    | 0            |      | 9.59  | 46.12 | 50          | 20        |           | 0.097         | 0.087 | 7.75  |      |
| Phenanthrene               | 1    | 0            |      | 9.83  | 49.24 | 50          | 20        |           | 1.057         | 1.041 | 1.51  |      |
| Anthracene                 | 1    | 0            |      | 9.88  | 51.19 | 50          | 20        |           | 1.073         | 1.098 | 2.38  |      |
| Carbazole                  | 1    | 0            |      | 10.05 | 51.10 | 50          | 20        |           | 0.976         | 0.997 | 2.20  |      |
| Di-n-butylphthalate        | 1    | 0            |      | 10.42 | 44.15 | 50          | 20        |           | 1.117         | 1.094 | 11.69 |      |
| Fluoranthene               | 1    | 0            |      | 11.16 | 52.10 | 50          | 20        |           | 1.115         | 1.161 | 4.19  |      |
| Chrysene-d12               | 1    | 0            | I    | 12.86 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0            |      | 11.43 | 53.76 | 50          | 20        |           | 1.233         | 1.325 | 7.52  |      |
| Benzidine                  | 1    | 0            |      | 11.31 | 41.80 | 50          | **        |           | 0.463         | 0.400 | 16.40 |      |
| Terphenyl-d14              | 1    | 0            | S    | 11.60 | 26.07 | 25          | **        |           | 0.733         | 0.764 | 4.30  |      |
| 4,4'-DDE                   | 1    | 0            |      | 11.54 | 51.12 |             | **        |           | 0.254         |       |       |      |
| 4,4'-DDD                   | 1    | 0            |      | 11.94 | 52.86 |             | **        |           | 0.432         |       |       |      |
| Butylbenzylphthalate       | 1    | 0            |      | 12.18 | 53.75 | 50          | 20        |           | 0.536         | 0.565 | 7.50  |      |
| 4,4'-DDT                   | 1    | 0            |      | 12.29 | 53.93 |             | **        |           | 0.383         |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0            |      | 12.81 | 54.18 | 50          | 20        |           | 0.352         | 0.401 | 8.35  |      |
| Benzo[a]anthracene         | 1    | 0            |      | 12.85 | 50.81 | 50          | 20        |           | 1.110         | 1.128 | 1.62  |      |
| Chrysene                   | 1    | 0            |      | 12.89 | 51.10 | 50          | 20        |           | 1.090         | 1.114 | 2.20  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0            |      | 12.87 | 48.14 | 50          | 20        |           | 0.765         | 0.737 | 3.71  |      |
| Perylene-d12               | 1    | 0            | I    | 14.49 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0            |      | 13.62 | 45.53 | 50          | 20        |           | 1.236         | 1.226 | 8.94  |      |
| Benzo[b]fluoranthene       | 1    | 0            |      | 14.07 | 53.13 | 50          | 20        |           | 1.086         | 1.153 | 6.26  |      |
| Benzo[k]fluoranthene       | 1    | 0            |      | 14.09 | 53.50 | 50          | 20        |           | 1.069         | 1.144 | 7.01  |      |
| Benzo[a]pyrene             | 1    | 0            |      | 14.43 | 50.73 | 50          | 20        |           | 1.054         | 1.070 | 1.46  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0            |      | 15.86 | 51.12 | 50          | 20        |           | 1.110         | 1.134 | 2.24  |      |
| Dibenzo[a,h]anthracene     | 1    | 0            |      | 15.87 | 51.08 | 50          | 20        |           | 0.920         | 0.940 | 2.16  |      |
| Benzo[g,h,i]perylene       | 1    | 0            |      | 16.25 | 48.46 | 50          | 20        |           | 0.980         | 0.950 | 3.08  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 2 of 2

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 10M71464.D  
Acq On : 10/22/18 07:45

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M 100%  
Qt On : 10/22/18 08:12  
Qt Upd On: 10/08/18 12:40

8101509 0471

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-22-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|----------|--------|----------|
| -----                          |        |      |          |          |        |          |
| Internal Standards             |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.727  | 96   | 56350    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.893  | 152  | 107070   | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 369309   | 40.00    | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 241193   | 40.00    | ng     | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 417865   | 40.00    | ng     | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 373431   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 395181   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds    |        |      |          |          |        |          |
| 11) 2-Fluorophenol             | 4.711  | 112  | 153040   | 46.92    | ng     | -0.01    |
| Spiked Amount 100.000          |        |      | Recovery | =        | 46.92% |          |
| 16) Phenol-d5                  | 5.578  | 99   | 210893   | 47.77    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 47.77% |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 29633    | 25.50    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 51.00% |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 185830   | 24.06    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 48.12% |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 42175    | 42.47    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 42.47% |          |
| 94) Terphenyl-d14              | 11.600 | 244  | 178410   | 26.07    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 52.14% |          |
| Target Compounds               |        |      |          |          |        |          |
|                                |        |      |          |          |        | Qvalue   |
| 8) 1,4-Dioxane                 | 2.770  | 88   | 65731    | 48.4025  | ng     | 93       |
| 9) Pyridine                    | 3.246  | 79   | 163559   | 52.0018  | ng     | 70       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 90055    | 47.9559  | ng     | 85       |
| 12) Benzaldehyde               | 5.530  | 77   | 44836    | 28.5556  | ng     | 74       |
| 13) Aniline                    | 5.621  | 93   | 197443   | 43.2318  | ng     | 36       |
| 14) Pentachloroethane          | 5.658  | 117  | 59117    | 47.8982  | ng     | 71       |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 158104   | 48.4841  | ng     | 75       |
| 17) Phenol                     | 5.589  | 94   | 218238   | 49.9099  | ng     | 88       |
| 18) 2-Chlorophenol             | 5.717  | 128  | 175014   | 47.9205  | ng     | 77       |
| 19) N-Decane                   | 5.749  | 57   | 139802   | 48.7739  | ng     | 78       |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 194020   | 47.9098  | ng     | 97       |
| 22) 1,4-Dichlorobenzene        | 5.909  | 146  | 193992   | 49.2372  | ng     | 96       |
| 23) 1,2-Dichlorobenzene        | 6.032  | 146  | 190799   | 49.5585  | ng     | 98       |
| 24) Benzyl alcohol             | 6.006  | 108  | 105141   | 48.3970  | ng     | 80       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 183965   | 50.3331  | ng     | 79       |
| 26) 2-Methylphenol             | 6.091  | 108  | 150981   | 48.4870  | ng     | 100      |
| 27) Acetophenone               | 6.220  | 105  | 218091   | 49.4571  | ng     | 73       |
| 28) Hexachloroethane           | 6.305  | 117  | 76749    | 50.3011  | ng     | 82       |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 102482   | 49.8691  | ng     | 77       |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 153630   | 51.9453  | ng     | 97       |
| 33) Nitrobenzene               | 6.359  | 77   | 164296   | 51.2037  | ng     | 77       |
| 34) Isophorone                 | 6.541  | 82   | 284359   | 51.4901  | ng     | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 90237    | 51.3879  | ng     | 87       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 168321   | 51.3512  | ng     | 93       |
| 37) Benzoic Acid               | 6.712  | 105  | 74603    | 30.9306  | ng     | 83       |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 190216   | 54.9078  | ng     | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 149278   | 52.1986  | ng     | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 163957   | 52.8859  | ng     | 95       |
| 41) Naphthalene                | 6.915  | 128  | 508001   | 51.8592  | ng     | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 187634   | 59.0918  | ng     | 96       |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 86098    | 49.6092  | ng     | 96       |
| 44) Caprolactam                | 7.225  | 113  | 51252    | 51.1106  | ng     | 62       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 131026   | 50.0060  | ng     | 79       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 326148   | 50.3760  | ng     | 100      |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 326482   | 51.2665  | ng     | 95       |
| 48) Methylnaphthalenes (To...  | 7.530  | 142  | 652933m  | 101.8661 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 411782   | 51.1795  | ng     | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 165166   | 49.9582  | ng     | 97       |
| 52) Hexachlorocyclopentadiene  | 7.568  | 237  | 52068    | 42.9609  | ng     | 94       |
| 53) 2,4,6-Trichlorophenol      | 7.669  | 196  | 94608    | 47.1017  | ng     | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 103897   | 48.6996  | ng     | 91       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 319126   | 50.1063  | ng     | 91       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 258105   | 49.1005  | ng     | 92       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 258105   | 49.1005  | ng     | 92       |
| 59) Diphenyl Ether             | 7.910  | 170  | 239468   | 50.7477  | ng     | 74       |
| 60) 2-Nitroaniline             | 7.926  | 65   | 106494   | 47.0517  | ng     | 50       |
| 61) Coumarin                   | 8.118  | 146  | 119699   | 51.0371  | ng     | 67       |
| 62) Acenaphthylene             | 8.209  | 152  | 466814   | 49.6938  | ng     | 99       |
| 63) Dimethylphthalate          | 8.065  | 163  | 364467   | 48.9968  | ng     | 99       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 75188    | 48.5703  | ng     | 75       |
| 65) Acenaphthene               | 8.365  | 153  | 320215   | 48.3392  | ng     | 95       |

SampleID : CAL BNA@50PPM  
Data File: 10M71464.D  
Acq On : 10/22/18 07:45

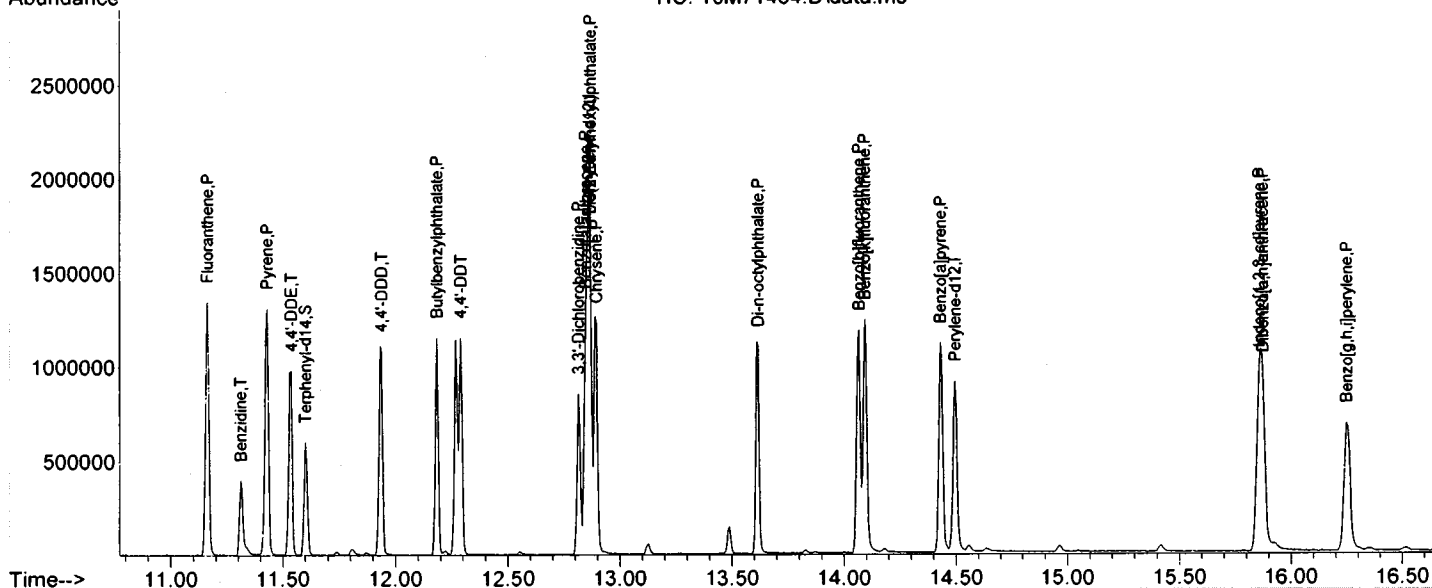
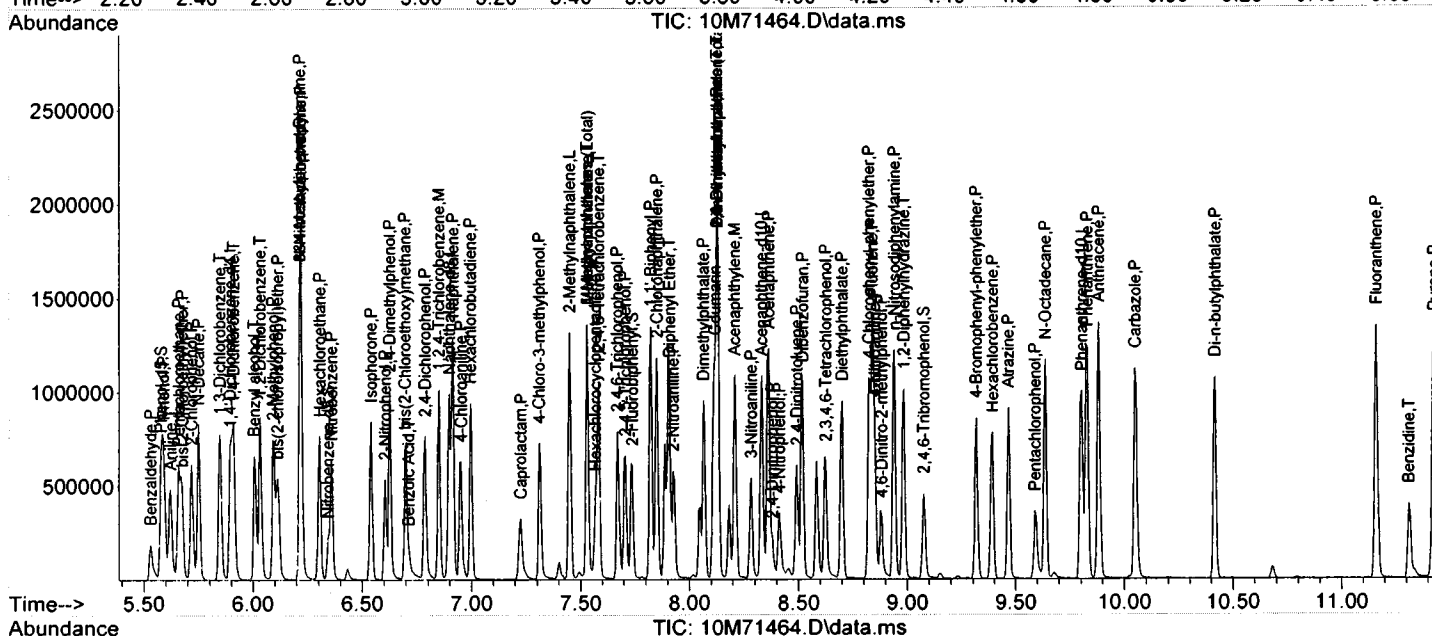
Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 10M 1008.M  
Qt On : 10/22/18 08:12  
Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-22-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 85455    | 45.5392 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.381  | 184  | 36135    | 43.7301 | ng    | 35       |
| 68) Dibenzofuran               | 8.520  | 168  | 460398   | 48.0901 | ng    | 84       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 109207   | 44.8813 | ng    | 62       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 51853    | 39.1714 | ng    | 63       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 85051    | 45.7534 | ng    | 81       |
| 72) Fluorene                   | 8.841  | 166  | 358785   | 47.2403 | ng    | 97       |
| 73) 4-Chlorophenyl-phenyle...  | 8.824  | 204  | 175288   | 48.3708 | ng    | 85       |
| 74) Diethylphthalate           | 8.701  | 149  | 352366   | 47.9253 | ng    | 96       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 95488    | 46.3286 | ng    | 88       |
| 76) Atrazine                   | 9.466  | 200  | 112279   | 45.5065 | ng    | 99       |
| 78) 4,6-Dinitro-2-methylph...  | 8.883  | 198  | 59952    | 50.1170 | ng    | 68       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 317500   | 50.3957 | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 406610   | 52.8994 | ng    | 81       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 95391    | 49.2924 | ng    | 86       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 96163    | 46.2661 | ng    | 71       |
| 84) N-Octadecane               | 9.637  | 57   | 181357   | 51.2946 | ng    | 75       |
| 85) Pentachlorophenol          | 9.589  | 266  | 45518    | 46.1231 | ng    | 96       |
| 86) Phenanthrene               | 9.830  | 178  | 543666   | 49.2435 | ng    | 98       |
| 87) Anthracene                 | 9.884  | 178  | 573552   | 51.1881 | ng    | 99       |
| 88) Carbazole                  | 10.049 | 167  | 520923   | 51.1006 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 571367   | 44.1526 | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 606608   | 52.0963 | ng    | 90       |
| 92) Pyrene                     | 11.429 | 202  | 618715   | 53.7580 | ng    | 81       |
| 93) Benzidine                  | 11.312 | 184  | 186770   | 41.8009 | ng    | 80       |
| 95) 4,4'-DDE                   | 11.536 | 246  | 121360   | 51.1242 | ng    | 92       |
| 96) 4,4'-DDD                   | 11.937 | 235  | 213133   | 52.8553 | ng    | 92       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 263608   | 53.7519 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.290 | 235  | 192827   | 53.9336 | ng    | 94       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 187282   | 54.1769 | ng    | 95       |
| 100) Benzo[a]anthracene        | 12.847 | 228  | 526423   | 50.8078 | ng    | 98       |
| 101) Chrysene                  | 12.895 | 228  | 519940   | 51.1000 | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 343922   | 48.1436 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 605458   | 45.5306 | ng    | 97       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 569781   | 53.1282 | ng    | 92       |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 565298   | 53.5031 | ng    | 93       |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 528317   | 50.7292 | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.858 | 276  | 560371   | 51.1190 | ng    | 86       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 464514   | 51.0821 | ng    | 90       |
| 110) Benzo[g,h,i]perylene      | 16.248 | 276  | 469120   | 48.4581 | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form7

Continuing Calibration

8101509 0474

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/22/2018 7:52:00Data File: 5M105896.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc   | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|--------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.51 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.54 | 51.35  | 50       | 5      | 70     | 0.979      | 1.044 | 2.69  |      |
| Pyridine                    | 1    | 0         |      | 3.01 | 49.54  | 50       | 2.5    | 75     | 2.530      | 2.507 | 0.92  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.94 | 49.22  | 50       | 15     | 70     | 1.441      | 1.418 | 1.56  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 50.13  | 50       | **     |        | 2.077      | 2.082 | 0.26  |      |
| Benzaldehyde                | 1    | 0         |      | 5.37 | 27.43  | 50       | 2.5    | 115    | 1.211      | 0.664 | 45.13 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 42.72  | 50       | 5      | 70     | 2.890      | 2.891 | 14.55 |      |
| Pentachloroethane           | 1    | 0         |      | 5.50 | 46.45  | 50       | 30     | 70     | 0.798      | 0.742 | 7.09  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 45.76  | 50       | 26     | 65     | 2.508      | 2.295 | 8.49  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 46.87  | 50       | **     |        | 3.202      | 3.002 | 6.26  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 49.09  | 50       | 24     | 65     | 3.388      | 3.327 | 1.81  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 46.98  | 50       | 27.5   | 65     | 2.390      | 2.246 | 6.03  |      |
| N-Decane                    | 1    | 0         |      | 5.60 | 44.28  | 50       | 30     | 70     | 2.744      | 2.430 | 11.45 |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 47.79  | 50       | 30     | 70     | 2.683      | 2.564 | 4.43  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.74 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.75 | 50.73  | 50       | 30     | 70     | 1.495      | 1.516 | 1.45  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.88 | 51.42  | 50       | 30     | 70     | 1.389      | 1.429 | 2.85  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.86 | 50.79  | 50       | 30     | 70     | 0.819      | 0.832 | 1.58  |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 48.50  | 50       | 31.5   | 69.5   | 1.886      | 1.830 | 2.99  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 50.17  | 50       | 30     | 70     | 1.201      | 1.205 | 0.35  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 49.98  | 50       | 30     | 70     | 1.751      | 1.750 | 0.05  |      |
| Hexachloroethane            | 1    | 0         |      | 6.15 | 43.28  | 50       | 27.5   | 65     | 0.555      | 0.481 | 13.45 |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 45.26  | 50       | 29.5   | 85     | 0.846      | 0.869 | 9.47  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 46.08  | 50       | 30     | 70     | 1.137      | 1.219 | 7.83  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.20 | 24.92  | 25       | **     |        | 0.118      | 0.118 | 0.34  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 48.10  | 50       | 27     | 79     | 0.369      | 0.355 | 3.80  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 48.88  | 50       | 26     | 90     | 0.639      | 0.624 | 2.24  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 51.13  | 50       | 30.5   | 81.5   | 0.172      | 0.181 | 2.26  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 47.20  | 50       | 29     | 65     | 0.338      | 0.342 | 5.61  |      |
| Benzoic Acid                | 1    | 0         |      | 6.58 | 28.44  | 50       | 5      | 70     | 0.250      | 0.113 | 43.12 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 48.79  | 50       | 26     | 82     | 0.416      | 0.406 | 2.42  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.65 | 51.06  | 50       | 27     | 65     | 0.260      | 0.290 | 2.12  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.70 | 49.75  | 50       | 25.5   | 65     | 0.311      | 0.310 | 0.51  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 48.70  | 50       | 35     | 65     | 1.070      | 1.042 | 2.59  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.81 | 50.41  | 50       | 15     | 115    | 0.321      | 0.384 | 0.81  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.85 | 49.61  | 50       | 34     | 65     | 0.167      | 0.165 | 0.78  |      |
| Caprolactam                 | 1    | 0         |      | 7.08 | 47.76  | 50       | 30     | 70     | 0.100      | 0.104 | 4.49  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.17 | 49.20  | 50       | 34     | 65     | 0.282      | 0.280 | 1.59  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 50.69  | 50       | 30     | 70     | 0.687      | 0.697 | 1.37  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 51.23  | 50       | 30     | 70     | 0.676      | 0.693 | 2.45  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.30 | 101.76 | 100      | **     |        |            | 0.690 | 1.76  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.90  | 50       | 30     | 70     | 0.807      | 0.821 | 1.79  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.16 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.43 | 50.03  | 50       | 30     | 70     | 0.554      | 0.555 | 0.05  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.41 | 45.23  | 50       | 5      | 70     | 0.189      | 0.175 | 9.53  |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 48.32  | 50       | 34.5   | 65     | 0.304      | 0.314 | 3.35  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.55 | 51.98  | 50       | 30     | 70     | 0.335      | 0.353 | 3.95  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.58 | 25.20  | 25       | **     |        | 1.279      | 1.289 | 0.79  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 49.61  | 50       | 35     | 65     | 1.076      | 1.068 | 0.78  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.96 | 50.35  | 50       | 30     | 70     | 0.902      | 0.909 | 0.69  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.96 | 50.35  |          | **     |        |            |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

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Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/22/2018 7:52:00

Data File: 5M105896.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                  | Col# | Multi<br>Num | Type | RT    | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|----------------------------|------|--------------|------|-------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0            |      | 7.75  | 51.52 | 50          | 30        | 70        | 0.798         | 0.822 | 3.03  |      |
| 2-Nitroaniline             | 1    | 0            |      | 7.77  | 44.50 | 50          | 30        | 70        | 0.407         | 0.385 | 11.00 |      |
| Coumarin                   | 1    | 0            |      | 7.95  | 52.19 | 50          | 30        | 70        | 0.414         | 0.432 | 4.38  |      |
| Acenaphthylene             | 1    | 0            |      | 8.04  | 49.48 | 50          | 30        | 65        | 1.618         | 1.601 | 1.04  |      |
| Dimethylphthalate          | 1    | 0            |      | 7.91  | 49.73 | 50          | 25        | 65        | 1.205         | 1.199 | 0.53  |      |
| 2,6-Dinitrotoluene         | 1    | 0            |      | 7.98  | 49.25 | 50          | 34        | 68.5      | 0.264         | 0.274 | 1.50  |      |
| Acenaphthene               | 1    | 0            |      | 8.19  | 49.78 | 50          | 35        | 65        | 1.114         | 1.109 | 0.44  |      |
| 3-Nitroaniline             | 1    | 0            |      | 8.12  | 48.99 | 50          | 30        | 70        | 0.272         | 0.302 | 2.03  |      |
| 2,4-Dinitrophenol          | 1    | 0            |      | 8.22  | 44.21 | 50          | 19.5      | 86.5      | 0.121         | 0.099 | 11.59 |      |
| Dibenzofuran               | 1    | 0            |      | 8.35  | 47.34 | 50          | 30        | 70        | 1.562         | 1.525 | 5.32  |      |
| 2,4-Dinitrotoluene         | 1    | 0            |      | 8.33  | 48.17 | 50          | 26.5      | 65        | 0.345         | 0.356 | 3.66  |      |
| 4-Nitrophenol              | 1    | 0            |      | 8.25  | 39.23 | 50          | 12.5      | 65        | 0.215         | 0.182 | 21.55 |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0            |      | 8.46  | 48.25 | 50          | 30        | 70        | 0.270         | 0.289 | 3.49  |      |
| Fluorene                   | 1    | 0            |      | 8.67  | 50.36 | 50          | 35        | 65        | 1.229         | 1.238 | 0.72  |      |
| 4-Chlorophenyl-phenylether | 1    | 0            |      | 8.65  | 49.89 | 50          | 28.5      | 72.5      | 0.557         | 0.556 | 0.23  |      |
| Diethylphthalate           | 1    | 0            |      | 8.54  | 48.99 | 50          | 23.5      | 65        | 1.193         | 1.169 | 2.01  |      |
| 4-Nitroaniline             | 1    | 0            |      | 8.69  | 48.49 | 50          | 30        | 70        | 0.314         | 0.334 | 3.02  |      |
| Atrazine                   | 1    | 0            |      | 9.30  | 49.99 | 50          | 5         | 70        | 0.338         | 0.340 | 0.01  |      |
| Phenanthrene-d10           | 1    | 0            | I    | 9.62  | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0            |      | 8.71  | 50.17 | 50          | 28        | 65        | 0.101         | 0.095 | 0.35  |      |
| n-Nitrosodiphenylamine     | 1    | 0            |      | 8.77  | 49.33 | 50          | 30        | 70        | 0.625         | 0.616 | 1.33  |      |
| 2,4,6-Tribromophenol       | 1    | 0            | S    | 8.90  | 51.17 | 50          | **        |           | 0.069         | 0.076 | 2.34  |      |
| 1,2-Diphenylhydrazine      | 1    | 0            |      | 8.81  | 45.55 | 50          | 30        | 70        | 0.891         | 0.812 | 8.90  |      |
| 4-Bromophenyl-phenylether  | 1    | 0            |      | 9.14  | 51.09 | 50          | 35        | 65        | 0.188         | 0.192 | 2.18  |      |
| Hexachlorobenzene          | 1    | 0            |      | 9.21  | 51.27 | 50          | 19        | 71        | 0.181         | 0.185 | 2.53  |      |
| N-Octadecane               | 1    | 0            |      | 9.47  | 44.39 | 50          | 30        | 70        | 0.493         | 0.474 | 11.23 |      |
| Pentachlorophenol          | 1    | 0            |      | 9.41  | 51.89 | 50          | 21        | 76        | 0.087         | 0.084 | 3.78  |      |
| Phenanthrene               | 1    | 0            |      | 9.64  | 50.24 | 50          | 33.5      | 65        | 1.085         | 1.090 | 0.48  |      |
| Anthracene                 | 1    | 0            |      | 9.70  | 49.68 | 50          | 29        | 65        | 1.089         | 1.081 | 0.65  |      |
| Carbazole                  | 1    | 0            |      | 9.87  | 49.85 | 50          | 30        | 70        | 1.010         | 1.007 | 0.29  |      |
| Di-n-butylphthalate        | 1    | 0            |      | 10.24 | 46.15 | 50          | 26        | 65        | 1.063         | 1.158 | 7.70  |      |
| Fluoranthene               | 1    | 0            |      | 10.97 | 50.62 | 50          | 23.5      | 65        | 1.087         | 1.139 | 1.25  |      |
| Chrysene-d12               | 1    | 0            | I    | 12.67 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0            |      | 11.23 | 51.60 | 50          | 35        | 65        | 1.141         | 1.177 | 3.21  |      |
| Benzidine                  | 1    | 0            |      | 11.13 | 40.64 | 50          | 2.5       | 75        | 0.357         | 0.332 | 18.72 |      |
| Terphenyl-d14              | 1    | 0            | S    | 11.42 | 25.28 | 25          | **        |           | 0.640         | 0.647 | 1.11  |      |
| 4,4'-DDE                   | 1    | 0            |      | 11.35 | 51.43 |             | **        |           | 0.231         |       |       |      |
| 4,4'-DDD                   | 1    | 0            |      | 11.75 | 52.97 |             | **        |           | 0.370         |       |       |      |
| Butylbenzylphthalate       | 1    | 0            |      | 12.00 | 49.05 | 50          | 21.5      | 70        | 0.470         | 0.486 | 1.91  |      |
| 4,4'-DDT                   | 1    | 0            |      | 12.10 | 55.22 |             | **        |           | 0.330         |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0            |      | 12.63 | 50.50 | 50          | 9         | 107       | 0.271         | 0.323 | 1.01  |      |
| Benzo[a]anthracene         | 1    | 0            |      | 12.66 | 50.82 | 50          | 21        | 66.5      | 1.082         | 1.099 | 1.65  |      |
| Chrysene                   | 1    | 0            |      | 12.70 | 49.81 | 50          | 22        | 70        | 1.036         | 1.032 | 0.38  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0            |      | 12.69 | 45.19 | 50          | 21.5      | 68.5      | 0.664         | 0.697 | 9.61  |      |
| Perylene-d12               | 1    | 0            | I    | 14.28 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0            |      | 13.44 | 47.36 | 50          | 10.5      | 66        | 1.269         | 1.304 | 5.29  |      |
| Benzo[b]fluoranthene       | 1    | 0            |      | 13.87 | 50.44 | 50          | 21        | 70        | 1.126         | 1.136 | 0.87  |      |
| Benzo[k]fluoranthene       | 1    | 0            |      | 13.90 | 52.43 | 50          | 12.5      | 73        | 1.133         | 1.188 | 4.86  |      |
| Benzo[a]pyrene             | 1    | 0            |      | 14.22 | 50.80 | 50          | 16        | 74        | 1.085         | 1.095 | 1.60  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0            |      | 15.56 | 50.69 | 50          | 6.5       | 75.5      | 1.189         | 1.187 | 1.38  |      |
| Dibenzo[a,h]anthracene     | 1    | 0            |      | 15.58 | 49.46 | 50          | 6.5       | 100       | 1.011         | 1.011 | 1.08  |      |
| Benzo[g,h,i]perylene       | 1    | 0            |      | 15.92 | 50.46 | 50          | 6.5       | 97.5      | 1.012         | 1.004 | 0.91  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 2 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0476

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/22/2018 7:52:00

Data File: 5M105896.D  
 Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        | 0.678     |               | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        | 0.902     |               | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 C1-Compound %Diff exceeds limits

Page 3 of 3  
 \*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 5M105896.D  
Acq On : 10/22/18 07:52

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/22/18 08:10  
Qt Upd On: 10/08/18 13:12

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|----------|--------|----------|
| Internal Standards             |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 65003    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 110898   | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 411619   | 40.00    | ng     | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 238931   | 40.00    | ng     | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 397061   | 40.00    | ng     | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 401600   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 327289   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds    |        |      |          |          |        |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 169171   | 50.13    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 50.13% |          |
| 16) Phenol-d5                  | 5.427  | 99   | 243911   | 46.87    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 46.87% |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 30265    | 24.92    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 49.84% |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 192555   | 25.20    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 50.40% |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 37495    | 51.17    | ng     | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 51.17% |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 162384   | 25.28    | ng     | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 50.56% |          |
| Target Compounds               |        |      |          |          |        |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 84860m   | 51.3474  | ng     | Qvalue   |
| 9) Pyridine                    | 3.007  | 79   | 203703   | 49.5380  | ng     | 74       |
| 10) N-Nitrosodimethylamine     | 2.943  | 74   | 115238   | 49.2209  | ng     | 77       |
| 12) Benzaldehyde               | 5.374  | 77   | 53978    | 27.4346  | ng     | 74       |
| 13) Aniline                    | 5.464  | 93   | 234905m  | 42.7239  | ng     |          |
| 14) Pentachloroethane          | 5.497  | 117  | 60272    | 46.4536  | ng     | 77       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 186510   | 45.7575  | ng     | 82       |
| 17) Phenol                     | 5.443  | 94   | 270294   | 49.0935  | ng     | 81       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 182471   | 46.9845  | ng     | 81       |
| 19) N-Decane                   | 5.598  | 57   | 197417   | 44.2757  | ng     | 87       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 208331   | 47.7850  | ng     | 97       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 210180   | 50.7253  | ng     | 98       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 198094   | 51.4226  | ng     | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 115283   | 50.7902  | ng     | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 253643   | 48.5032  | ng     | 97       |
| 26) 2-Methylphenol             | 5.951  | 108  | 167082   | 50.1736  | ng     | 98       |
| 27) Acetophenone               | 6.073  | 105  | 242579   | 49.9768  | ng     | 78       |
| 28) Hexachloroethane           | 6.148  | 117  | 66625    | 43.2757  | ng     | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 120424   | 45.2643  | ng     | 74       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 169023   | 46.0831  | ng     | 94       |
| 33) Nitrobenzene               | 6.212  | 77   | 182598   | 48.0985  | ng     | 78       |
| 34) Isophorone                 | 6.394  | 82   | 321222   | 48.8802  | ng     | 88       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 93247    | 51.1324  | ng     | 88       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 175756   | 47.1961  | ng     | 93       |
| 37) Benzoic Acid               | 6.581  | 105  | 58096    | 28.4406  | ng     | 88       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 208662   | 48.7917  | ng     | 96       |
| 39) 2,4-Dichlorophenol         | 6.645  | 162  | 149345   | 51.0601  | ng     | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 159341   | 49.7473  | ng     | 98       |
| 41) Naphthalene                | 6.768  | 128  | 536075   | 48.7027  | ng     | 100      |
| 42) 4-Chloroaniline            | 6.805  | 127  | 197724   | 50.4050  | ng     | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 85096    | 49.6077  | ng     | 96       |
| 44) Caprolactam                | 7.083  | 113  | 53439    | 47.7563  | ng     | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 144055   | 49.2037  | ng     | 78       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 358573   | 50.6851  | ng     | 100      |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 356474   | 51.2262  | ng     | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 709612m  | 101.7620 | ng     |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 422438   | 50.8957  | ng     | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 165652   | 50.0259  | ng     | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 52241    | 45.2326  | ng     | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 93816    | 48.3249  | ng     | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 105391   | 51.9757  | ng     | 97       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 318832   | 49.6108  | ng     | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 271373   | 50.3461  | ng     | 89       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 271373   | 50.3461  | ng     | 89       |
| 59) Diphenyl Ether             | 7.751  | 170  | 245644   | 51.5171  | ng     | 75       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 114908   | 44.5015  | ng     | 54       |
| 61) Coumarin                   | 7.954  | 146  | 129057   | 52.1880  | ng     | 78       |
| 62) Acenaphthylene             | 8.045  | 152  | 478085   | 49.4798  | ng     | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 358030   | 49.7333  | ng     | 98       |
| 64) 2,6-Dinitrotoluene         | 7.975  | 165  | 81729    | 49.2510  | ng     | 56       |
| 65) Acenaphthene               | 8.194  | 153  | 331092   | 49.7783  | ng     | 95       |



SampleID : CAL BNA@50PPM  
 Data File: 5M105896.D  
 Acq On : 10/22/18 07:52

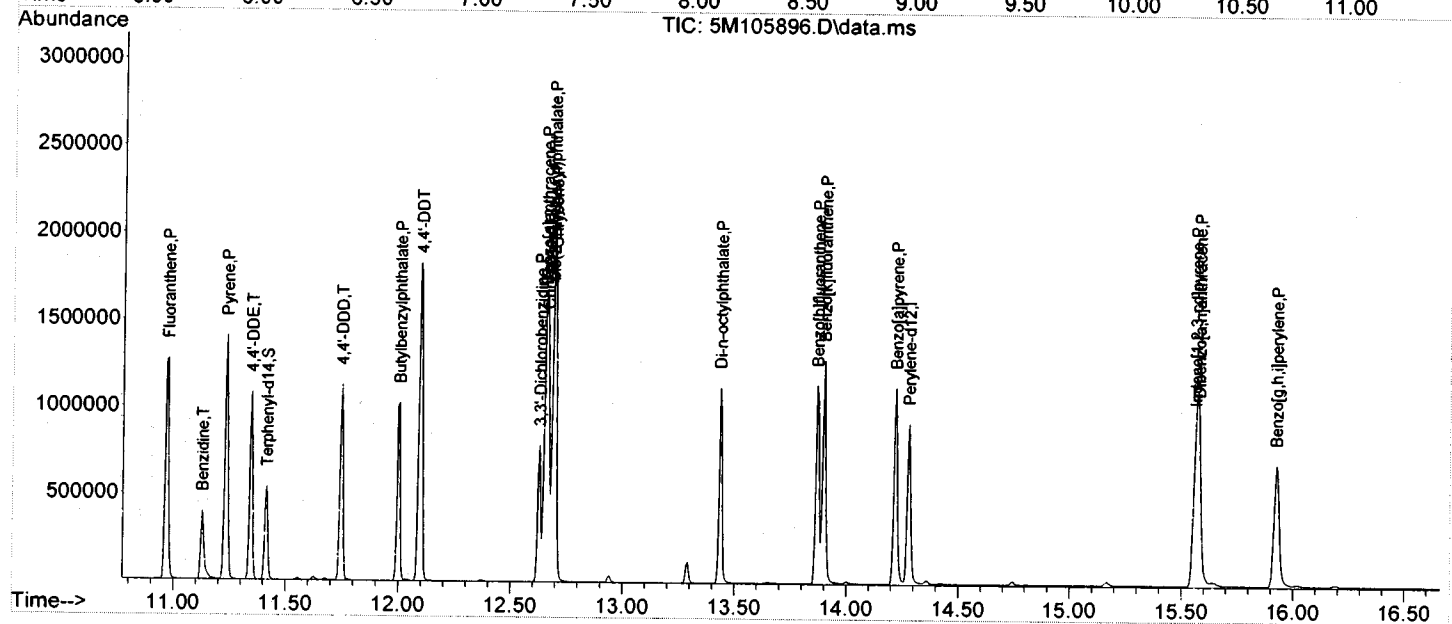
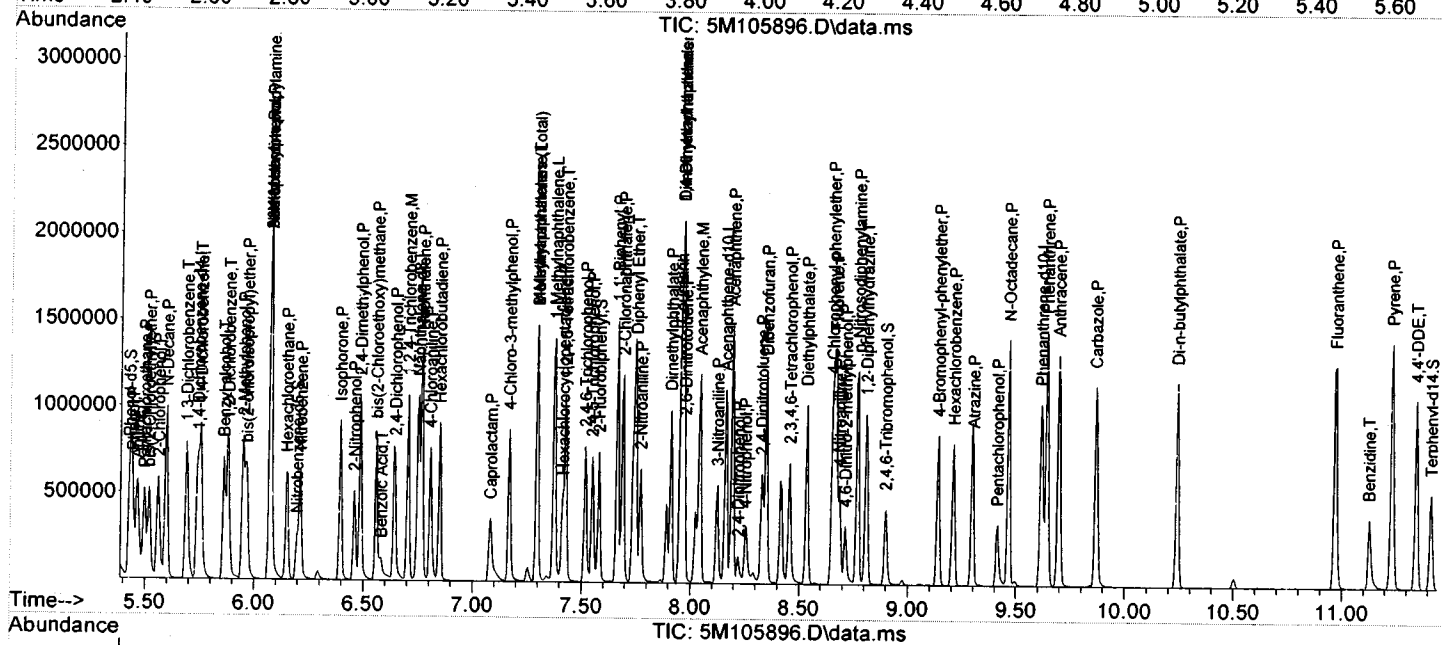
Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/22/18 08:10  
 Qt Upd On: 10/08/18 13:12

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.125  | 138  | 90089    | 48.9853 | ng    | 72       |
| 67)  | 2,4-Dinitrophenol         | 8.221  | 184  | 29576    | 44.2051 | ng    | 36       |
| 68)  | Dibenzofuran              | 8.349  | 168  | 455337   | 47.3408 | ng    | 83       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 106344   | 48.1719 | ng    | 69       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 54358    | 39.2253 | ng    | 92       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 86219    | 48.2534 | ng    | 80       |
| 72)  | Fluorene                  | 8.670  | 166  | 369796   | 50.3622 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 166113   | 49.8857 | ng    | 87       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 349059   | 48.9925 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.686  | 138  | 99785    | 48.4923 | ng    | 73       |
| 76)  | Atrazine                  | 9.300  | 200  | 101679   | 49.9942 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.713  | 198  | 47137    | 50.1727 | ng    | 61       |
| 79)  | n-Nitrosodiphenylamine    | 8.771  | 169  | 305946   | 49.3334 | ng    | 100      |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 402836   | 45.5482 | ng    | 89       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 95404    | 51.0898 | ng    | 81       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 91952    | 51.2662 | ng    | 73       |
| 84)  | N-Octadecane              | 9.466  | 57   | 235021   | 44.3870 | ng    | 82       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 41526    | 51.8923 | ng    | 95       |
| 86)  | Phenanthrene              | 9.642  | 178  | 541044   | 50.2399 | ng    | 99       |
| 87)  | Anthracene                | 9.696  | 178  | 536742   | 49.6751 | ng    | 99       |
| 88)  | Carbazole                 | 9.866  | 167  | 499696   | 49.8539 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 574783   | 46.1511 | ng    | 97       |
| 90)  | Fluoranthene              | 10.972 | 202  | 565197   | 50.6236 | ng    | 91       |
| 92)  | Pyrene                    | 11.234 | 202  | 590908   | 51.6045 | ng    | 88       |
| 93)  | Benzidine                 | 11.127 | 184  | 166540   | 40.6382 | ng    | 89       |
| 95)  | 4,4'-DDE                  | 11.346 | 246  | 119174   | 51.4268 | ng    | 92       |
| 96)  | 4,4'-DDD                  | 11.747 | 235  | 196704   | 52.9723 | ng    | 92       |
| 97)  | Butylbenzylphthalate      | 12.003 | 149  | 244207   | 49.0458 | ng    | 71       |
| 98)  | 4,4'-DDT                  | 12.100 | 235  | 183101   | 55.2233 | ng    | 94       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.628 | 252  | 162226   | 50.5029 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.655 | 228  | 551919   | 50.8240 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 518024   | 49.8105 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 350143   | 45.1927 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 533584   | 47.3575 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.868 | 252  | 464681   | 50.4357 | ng    | 97       |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 486052m  | 52.4298 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 447871   | 50.7999 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 485725   | 50.6920 | ng    | 93       |
| 109) | Dibenzo[a,h]anthracene    | 15.577 | 278  | 413442   | 49.4611 | ng    | 91       |
| 110) | Benzo[g,h,i]perylene      | 15.925 | 276  | 410739   | 50.4551 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/23/2018 8:44:00Data File: 5M105924.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|-------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.52 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.55 | 50.13 |          | **     | 0.979  |            |       |       |      |
| Pyridine                    | 1    | 0         |      | 3.01 | 50.86 | 50       | **     | 2.530  | 2.574      |       | 1.71  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.95 | 50.02 | 50       | **     | 1.441  | 1.441      |       | 0.04  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 50.67 | 50       | **     | 2.077  | 2.104      |       | 1.34  |      |
| Benzaldehyde                | 1    | 0         |      | 5.37 | 36.55 | 50       | **     | 1.211  | 0.885      |       | 26.90 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 44.46 | 50       | **     | 2.890  | 3.011      |       | 11.08 |      |
| Pentachloroethane           | 1    | 0         |      | 5.50 | 48.84 | 50       | **     | 0.798  | 0.780      |       | 2.32  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 46.84 | 50       | 20     | 2.508  | 2.350      |       | 6.31  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 48.81 | 50       | **     | 3.202  | 3.126      |       | 2.37  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 52.10 | 50       | 20     | 3.388  | 3.470      |       | 4.20  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 49.12 | 50       | 20     | 2.390  | 2.348      |       | 1.77  |      |
| N-Decane                    | 1    | 0         |      | 5.60 | 48.63 | 50       | 20     | 2.744  | 2.668      |       | 2.75  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 48.39 | 50       | 20     | 2.683  | 2.596      |       | 3.22  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.74 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.75 | 50.70 | 50       | 20     | 1.495  | 1.516      |       | 1.41  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.88 | 50.72 | 50       | 20     | 1.389  | 1.409      |       | 1.43  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.86 | 52.39 | 50       | **     | 0.819  | 0.858      |       | 4.78  |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 50.58 | 50       | 20     | 1.886  | 1.908      |       | 1.17  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 50.19 | 50       | 20     | 1.201  | 1.206      |       | 0.39  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 52.14 | 50       | **     | 1.751  | 1.826      |       | 4.28  |      |
| Hexachloroethane            | 1    | 0         |      | 6.15 | 50.10 | 50       | 20     | 0.555  | 0.556      |       | 0.21  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 47.89 | 50       | **     | 0.846  | 0.917      |       | 4.21  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 48.20 | 50       | **     | 1.137  | 1.272      |       | 3.61  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.75 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.20 | 26.60 | 25       | **     | 0.118  | 0.126      |       | 6.42  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 49.87 | 50       | 20     | 0.369  | 0.368      |       | 0.25  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 49.64 | 50       | 20     | 0.639  | 0.634      |       | 0.73  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 50.75 | 50       | 20     | 0.172  | 0.180      |       | 1.51  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 46.77 | 50       | 20     | 0.338  | 0.338      |       | 6.47  |      |
| Benzoic Acid                | 1    | 0         |      | 6.58 | 32.55 | 50       | **     | 0.250  | 0.133      |       | 34.90 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 49.83 | 50       | 20     | 0.416  | 0.414      |       | 0.33  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.64 | 50.35 | 50       | 20     | 0.260  | 0.286      |       | 0.70  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.70 | 48.72 | 50       | 20     | 0.311  | 0.303      |       | 2.57  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 48.07 | 50       | **     | 1.070  | 1.028      |       | 3.87  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.81 | 50.27 | 50       | **     | 0.321  | 0.383      |       | 0.53  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.85 | 50.13 | 50       | 20     | 0.167  | 0.167      |       | 0.25  |      |
| Caprolactam                 | 1    | 0         |      | 7.08 | 48.48 | 50       | **     | 0.100  | 0.106      |       | 3.05  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.17 | 51.52 | 50       | 20     | 0.282  | 0.294      |       | 3.05  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 49.70 | 50       | **     | 0.687  | 0.683      |       | 0.60  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 49.67 | 50       | **     | 0.676  | 0.672      |       | 0.67  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.30 | 99.65 | 100      | **     |        | 0.675      |       | 0.35  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.34 | 50       | **     | 0.807  | 0.812      |       | 0.68  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.16 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.42 | 50.41 | 50       | **     | 0.554  | 0.559      |       | 0.82  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.41 | 45.20 | 50       | **     | 0.189  | 0.175      |       | 9.60  |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 48.33 | 50       | 20     | 0.304  | 0.314      |       | 3.35  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.55 | 52.14 | 50       | **     | 0.335  | 0.354      |       | 4.28  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.58 | 25.30 | 25       | **     | 1.279  | 1.295      |       | 1.20  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 51.63 | 50       | 20     | 1.076  | 1.111      |       | 3.26  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.96 | 52.61 | 50       | **     | 0.902  | 0.949      |       | 5.21  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.96 | 52.61 |          | **     |        |            |       |       |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

CI-Compound %Diff exceeds limits

Page 1 of 2

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0481

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/23/2018 8:44:00Data File: 5M105924.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.75  | 50.95 | 50       | **     |        | 0.798      | 0.813 | 1.90  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.77  | 47.63 | 50       | **     |        | 0.407      | 0.412 | 4.74  |      |
| Coumarin                   | 1    | 0         |      | 7.95  | 53.65 |          | **     |        | 0.414      |       |       |      |
| Acenaphthylene             | 1    | 0         |      | 8.04  | 51.66 | 50       | 20     |        | 1.618      | 1.671 | 3.33  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.91  | 50.32 | 50       | 20     |        | 1.205      | 1.213 | 0.64  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 7.97  | 51.07 | 50       | 20     |        | 0.264      | 0.284 | 2.14  |      |
| Acenaphthene               | 1    | 0         |      | 8.19  | 51.40 | 50       | 20     |        | 1.114      | 1.145 | 2.80  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.12  | 51.08 | 50       | **     |        | 0.272      | 0.314 | 2.15  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.22  | 45.02 | 50       | 20     |        | 0.121      | 0.101 | 9.96  |      |
| Dibenzofuran               | 1    | 0         |      | 8.35  | 48.51 | 50       | **     |        | 1.562      | 1.562 | 2.98  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.33  | 48.77 | 50       | 20     |        | 0.345      | 0.361 | 2.46  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.25  | 47.42 | 50       | 20     |        | 0.215      | 0.207 | 5.15  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.46  | 48.73 | 50       | **     |        | 0.270      | 0.292 | 2.54  |      |
| Fluorene                   | 1    | 0         |      | 8.66  | 50.51 | 50       | 20     |        | 1.229      | 1.242 | 1.02  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.65  | 50.06 | 50       | 20     |        | 0.557      | 0.558 | 0.12  |      |
| Diethylphthalate           | 1    | 0         |      | 8.54  | 50.20 | 50       | 20     |        | 1.193      | 1.198 | 0.40  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.69  | 47.96 | 50       | **     |        | 0.314      | 0.330 | 4.08  |      |
| Atrazine                   | 1    | 0         |      | 9.29  | 50.19 | 50       | **     |        | 0.338      | 0.342 | 0.38  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.62  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.71  | 50.39 | 50       | 20     |        | 0.101      | 0.095 | 0.79  |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.77  | 49.36 | 50       | **     |        | 0.625      | 0.617 | 1.28  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.90  | 50.44 | 50       | **     |        | 0.069      | 0.074 | 0.88  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.81  | 49.08 | 50       | **     |        | 0.891      | 0.875 | 1.83  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.14  | 49.94 | 50       | 20     |        | 0.188      | 0.188 | 0.12  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.21  | 50.64 | 50       | **     |        | 0.181      | 0.183 | 1.29  |      |
| N-Octadecane               | 1    | 0         |      | 9.47  | 46.54 | 50       | **     |        | 0.493      | 0.497 | 6.92  |      |
| Pentachlorophenol          | 1    | 0         |      | 9.41  | 51.18 | 50       | 20     |        | 0.087      | 0.082 | 2.36  |      |
| Phenanthrene               | 1    | 0         |      | 9.64  | 49.31 | 50       | 20     |        | 1.085      | 1.070 | 1.37  |      |
| Anthracene                 | 1    | 0         |      | 9.70  | 49.83 | 50       | 20     |        | 1.089      | 1.085 | 0.34  |      |
| Carbazole                  | 1    | 0         |      | 9.87  | 45.26 | 50       | 20     |        | 1.010      | 0.914 | 9.48  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.24 | 46.02 | 50       | 20     |        | 1.063      | 1.155 | 7.97  |      |
| Fluoranthene               | 1    | 0         |      | 10.97 | 50.23 | 50       | 20     |        | 1.087      | 1.129 | 0.45  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.67 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.23 | 52.32 | 50       | 20     |        | 1.141      | 1.193 | 4.63  |      |
| Benzidine                  | 1    | 0         |      | 11.13 | 42.74 | 50       | **     |        | 0.357      | 0.349 | 14.53 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.42 | 25.33 | 25       | **     |        | 0.640      | 0.648 | 1.30  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.35 | 52.13 |          | **     |        | 0.231      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.75 | 54.30 |          | **     |        | 0.370      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 12.00 | 50.73 | 50       | 20     |        | 0.470      | 0.504 | 1.45  |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.10 | 54.28 |          | **     |        | 0.330      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.63 | 51.84 | 50       | 20     |        | 0.271      | 0.332 | 3.69  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.66 | 50.03 | 50       | 20     |        | 1.082      | 1.082 | 0.07  |      |
| Chrysene                   | 1    | 0         |      | 12.70 | 51.59 | 50       | 20     |        | 1.036      | 1.069 | 3.19  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.69 | 46.59 | 50       | 20     |        | 0.664      | 0.719 | 6.83  |      |
| Perylene-d12               | 1    | 0         | I    | 14.28 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.44 | 47.17 | 50       | 20     |        | 1.269      | 1.299 | 5.66  |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.87 | 50.23 | 50       | 20     |        | 1.126      | 1.131 | 0.45  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.90 | 51.90 | 50       | 20     |        | 1.133      | 1.176 | 3.81  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.22 | 52.12 | 50       | 20     |        | 1.085      | 1.126 | 4.24  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.56 | 51.32 | 50       | 20     |        | 1.189      | 1.203 | 2.63  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.58 | 49.99 | 50       | 20     |        | 1.011      | 1.022 | 0.02  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 15.93 | 50.38 | 50       | 20     |        | 1.012      | 1.002 | 0.75  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits\*\* - No limit specified in method  
Page 2 of 2Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0482

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/24/2018 8:33:00

Data File: 7M95315.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc   | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|--------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.52 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.54 | 51.48  | 50       | 5      | 70     | 0.940      | 0.967 | 2.95  |      |
| Pyridine                    | 1    | 0         |      | 2.97 | 49.69  | 50       | 2.5    | 75     | 2.543      | 2.476 | 0.62  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.91 | 47.69  | 50       | 15     | 70     | 1.450      | 1.383 | 4.63  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 48.26  | 50       | **     |        | 2.146      | 2.071 | 3.48  |      |
| Benzaldehyde                | 1    | 0         |      | 5.36 | 34.99  | 50       | 2.5    | 115    | 1.115      | 0.781 | 30.02 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 49.16  | 50       | 5      | 70     | 2.833      | 2.785 | 1.68  |      |
| Pentachloroethane           | 1    | 0         |      | 5.51 | 51.23  | 50       | 30     | 70     | 0.725      | 0.743 | 2.46  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 50.04  | 50       | 26     | 65     | 2.222      | 2.194 | 0.08  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 48.80  | 50       | **     |        | 3.039      | 2.966 | 2.40  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 49.63  | 50       | 24     | 65     | 3.018      | 2.996 | 0.74  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 49.93  | 50       | 27.5   | 65     | 2.243      | 2.240 | 0.15  |      |
| N-Decane                    | 1    | 0         |      | 5.62 | 49.56  | 50       | 30     | 70     | 1.935      | 1.918 | 0.87  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 51.27  | 50       | 30     | 70     | 2.413      | 2.474 | 2.54  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.76 | 49.97  | 50       | 30     | 70     | 1.460      | 1.459 | 0.07  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.89 | 49.93  | 50       | 30     | 70     | 1.379      | 1.377 | 0.14  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.85 | 44.52  | 50       | 30     | 70     | 0.881      | 0.785 | 10.95 |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 49.21  | 50       | 31.5   | 69.5   | 1.346      | 1.325 | 1.57  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 47.47  | 50       | 30     | 70     | 1.205      | 1.144 | 5.06  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 50.20  | 50       | 30     | 70     | 1.723      | 1.730 | 0.39  |      |
| Hexachloroethane            | 1    | 0         |      | 6.16 | 50.35  | 50       | 27.5   | 65     | 0.534      | 0.538 | 0.71  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 47.08  | 50       | 29.5   | 85     | 0.837      | 0.788 | 5.85  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 47.91  | 50       | 30     | 70     | 1.203      | 1.153 | 4.18  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.19 | 24.39  | 25       | **     |        | 0.126      | 0.122 | 2.44  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 50.07  | 50       | 27     | 79     | 0.334      | 0.335 | 0.14  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 47.64  | 50       | 26     | 90     | 0.617      | 0.588 | 4.73  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 50.60  | 50       | 30.5   | 81.5   | 0.178      | 0.179 | 1.19  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 48.66  | 50       | 29     | 65     | 0.332      | 0.323 | 2.68  |      |
| Benzoic Acid                | 1    | 0         |      | 6.56 | 40.51  | 50       | 5      | 70     | 0.326      | 0.265 | 18.99 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 49.93  | 50       | 26     | 82     | 0.418      | 0.417 | 0.13  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.64 | 49.75  | 50       | 27     | 65     | 0.280      | 0.278 | 0.51  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.71 | 49.89  | 50       | 25.5   | 65     | 0.312      | 0.311 | 0.22  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 49.23  | 50       | 35     | 65     | 1.067      | 1.050 | 1.54  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.80 | 47.60  | 50       | 15     | 115    | 0.353      | 0.380 | 4.80  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.86 | 50.10  | 50       | 34     | 65     | 0.158      | 0.158 | 0.20  |      |
| Caprolactam                 | 1    | 0         |      | 7.06 | 45.31  | 50       | 30     | 70     | 0.116      | 0.105 | 9.38  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.16 | 48.31  | 50       | 34     | 65     | 0.279      | 0.269 | 3.38  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 51.00  | 50       | 30     | 70     | 0.696      | 0.710 | 2.01  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 49.90  | 50       | 30     | 70     | 0.677      | 0.675 | 0.21  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.30 | 100.87 | 100      | **     |        |            | 0.692 | 0.87  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.06  | 50       | 30     | 70     | 0.811      | 0.812 | 0.12  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.16 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.43 | 50.14  | 50       | 30     | 70     | 0.528      | 0.530 | 0.28  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.42 | 56.09  | 50       | 5      | 70     | 0.243      | 0.283 | 12.18 |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 48.17  | 50       | 34.5   | 65     | 0.344      | 0.331 | 3.65  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.54 | 48.75  | 50       | 30     | 70     | 0.354      | 0.345 | 2.50  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.58 | 24.75  | 25       | **     |        | 1.270      | 1.257 | 1.01  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 49.46  | 50       | 35     | 65     | 1.087      | 1.075 | 1.08  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.97 | 50.03  | 50       | 30     | 70     | 0.944      | 0.944 | 0.06  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.97 | 50.03  |          | **     |        |            |       |       |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

CI-Compound %Diff exceeds limits

Page 1 of 3

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 5M105924.D  
Acq On : 10/23/18 08:44

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/23/18 09:00  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-23-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.515  | 96   | 59259      | 40.00   | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 106413     | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 398382     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 225614     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 384355     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 374643     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 311166     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 155879     | 50.67   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 50.67%  |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 231585     | 48.81   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.81%  |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 31276      | 26.60   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 53.20%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 182576     | 25.30   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.60%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 35743      | 50.44   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 50.44%  |       |          |
| 94) Terphenyl-d14              | 11.416 | 244  | 151766     | 25.33   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.66%  |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.553  | 88   | 75492      | 50.1276 | ng    | 89       |
| 9) Pyridine                    | 3.012  | 79   | 190641     | 50.8553 | ng    | 75       |
| 10) N-Nitrosodimethylamine     | 2.948  | 74   | 106760     | 50.0198 | ng    | 80       |
| 12) Benzaldehyde               | 5.374  | 77   | 65554      | 36.5476 | ng    | 77       |
| 13) Aniline                    | 5.464  | 93   | 223022m    | 44.4623 | ng    |          |
| 14) Pentachloroethane          | 5.496  | 117  | 57767      | 48.8386 | ng    | 77       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 174066     | 46.8439 | ng    | 87       |
| 17) Phenol                     | 5.443  | 94   | 257018     | 52.0997 | ng    | 83       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 173897     | 49.1170 | ng    | 83       |
| 19) N-Decane                   | 5.598  | 57   | 197652     | 48.6252 | ng    | 87       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 192324     | 48.3894 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 201597     | 50.7045 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 187468     | 50.7153 | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 114110     | 52.3923 | ng    | 73       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 253829     | 50.5845 | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 160386     | 50.1927 | ng    | 97       |
| 27) Acetophenone               | 6.073  | 105  | 242836     | 52.1383 | ng    | 80       |
| 28) Hexachloroethane           | 6.148  | 117  | 74018      | 50.1041 | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 121990     | 47.8927 | ng    | 76       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 169230     | 48.1951 | ng    | 94       |
| 33) Nitrobenzene               | 6.212  | 77   | 183246     | 49.8731 | ng    | 80       |
| 34) Isophorone                 | 6.394  | 82   | 315696     | 49.6355 | ng    | 89       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 89534      | 50.7534 | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 168522     | 46.7668 | ng    | 93       |
| 37) Benzoic Acid               | 6.581  | 105  | 66046      | 32.5501 | ng    | 87       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 206266     | 49.8340 | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 142461     | 50.3511 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 151024     | 48.7173 | ng    | 98       |
| 41) Naphthalene                | 6.768  | 128  | 512051     | 48.0659 | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 190874     | 50.2664 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 83222      | 50.1273 | ng    | 96       |
| 44) Caprolactam                | 7.083  | 113  | 52546      | 48.4751 | ng    | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 146332     | 51.5226 | ng    | 82       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 340301     | 49.7006 | ng    | 96       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 334508     | 49.6668 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 672548m    | 99.6515 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 404370     | 50.3376 | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 157627     | 50.4121 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 49287      | 45.1987 | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 88591      | 48.3270 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 99847      | 52.1376 | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 313330     | 51.6324 | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 267752     | 52.6064 | ng    | 87       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 267752     | 52.6064 | ng    | 87       |
| 59) Diphenyl Ether             | 7.751  | 170  | 229408     | 50.9519 | ng    | 77       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 116295     | 47.6288 | ng    | 59       |
| 61) Coumarin                   | 7.954  | 146  | 125278     | 53.6500 | ng    | 74       |
| 62) Acenaphthylene             | 8.045  | 152  | 471373     | 51.6647 | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 342060     | 50.3196 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 80057      | 51.0694 | ng    | 73       |
| 65) Acenaphthene               | 8.194  | 153  | 322833     | 51.4015 | ng    | 96       |

## Quantitation Report (QT Reviewed)

SampleID : CAL\_BNA@50PPM Operator : AH/JB Qt Meth : SM\_1008.M  
 Data File: SM105924.D Sam Mult : 1 Vial# : 2 Qt On : 10/23/18 09:00  
 Acq On : 10/23/18 08:44 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.125  | 138  | 88601    | 51.0770 | ng    | 74       |
| 67)  | 2,4-Dinitrophenol         | 8.221  | 184  | 28535    | 45.0197 | ng    | 5        |
| 68)  | Dibenzofuran              | 8.349  | 168  | 440569   | 48.5080 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 101713   | 48.7713 | ng    | 73       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 58420    | 47.4246 | ng    | 98       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 82244    | 48.7310 | ng    | 82       |
| 72)  | Fluorene                  | 8.664  | 166  | 350213   | 50.5105 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 157404   | 50.0605 | ng    | 86       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 337737   | 50.2015 | ng    | 98       |
| 75)  | 4-Nitroaniline            | 8.686  | 138  | 93148    | 47.9616 | ng    | 80       |
| 76)  | Atrazine                  | 9.295  | 200  | 96417    | 50.1918 | ng    | 97       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.712  | 198  | 45863    | 50.3933 | ng    | 58       |
| 79)  | n-Nitrosodiphenylamine    | 8.771  | 169  | 296324   | 49.3614 | ng    | 100      |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 420205   | 49.0828 | ng    | 89       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 90277    | 49.9424 | ng    | 83       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 87928    | 50.6433 | ng    | 73       |
| 84)  | N-Octadecane              | 9.466  | 57   | 238592   | 46.5389 | ng    | 85       |
| 85)  | Pentachlorophenol         | 9.412  | 266  | 39542    | 51.1786 | ng    | 95       |
| 86)  | Phenanthrene              | 9.642  | 178  | 514071   | 49.3133 | ng    | 99       |
| 87)  | Anthracene                | 9.695  | 178  | 521178   | 49.8292 | ng    | 99       |
| 88)  | Carbazole                 | 9.866  | 167  | 439155   | 45.2622 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 554707   | 46.0152 | ng    | 97       |
| 90)  | Fluoranthene              | 10.967 | 202  | 542642   | 50.2274 | ng    | 96       |
| 92)  | Pyrene                    | 11.234 | 202  | 558837   | 52.3153 | ng    | 88       |
| 93)  | Benzidine                 | 11.127 | 184  | 163488   | 42.7361 | ng    | 88       |
| 95)  | 4,4'-DDE                  | 11.346 | 246  | 112684   | 52.1250 | ng    | 92       |
| 96)  | 4,4'-DDD                  | 11.747 | 235  | 188101   | 54.3004 | ng    | 92       |
| 97)  | Butylbenzylphthalate      | 11.998 | 149  | 236252   | 50.7264 | ng    | 80       |
| 98)  | 4,4'-DDT                  | 12.099 | 235  | 167883   | 54.2768 | ng    | 94       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.628 | 252  | 155268   | 51.8430 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.655 | 228  | 506871   | 50.0342 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 500547   | 51.5932 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 336865   | 46.5863 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 505082   | 47.1701 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.868 | 252  | 439951   | 50.2258 | ng    | 97       |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 457466m  | 51.9031 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 437879   | 52.1211 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 467998   | 51.3157 | ng    | 93       |
| 109) | Dibenzo[a,h]anthracene    | 15.577 | 278  | 397591   | 49.9908 | ng    | 93       |
| 110) | Benzo[g,h,i]perylene      | 15.930 | 276  | 389834   | 50.3753 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





# Form7

Continuing Calibration

8101509 0486

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/24/2018 8:33:00

Data File: 7M95315.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc   | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|--------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.52 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.54 | 51.48  | 50       | 5      | 70     | 0.940      | 0.967 | 2.95  |      |
| Pyridine                    | 1    | 0         |      | 2.97 | 49.69  | 50       | 2.5    | 75     | 2.543      | 2.476 | 0.62  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.91 | 47.69  | 50       | 15     | 70     | 1.450      | 1.383 | 4.63  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 48.26  | 50       | **     |        | 2.146      | 2.071 | 3.48  |      |
| Benzaldehyde                | 1    | 0         |      | 5.36 | 34.99  | 50       | 2.5    | 115    | 1.115      | 0.781 | 30.02 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 49.16  | 50       | 5      | 70     | 2.833      | 2.785 | 1.68  |      |
| Pentachloroethane           | 1    | 0         |      | 5.51 | 51.23  | 50       | 30     | 70     | 0.725      | 0.743 | 2.46  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 50.04  | 50       | 26     | 65     | 2.222      | 2.194 | 0.08  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 48.80  | 50       | **     |        | 3.039      | 2.966 | 2.40  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 49.63  | 50       | 24     | 65     | 3.018      | 2.996 | 0.74  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 49.93  | 50       | 27.5   | 65     | 2.243      | 2.240 | 0.15  |      |
| N-Decane                    | 1    | 0         |      | 5.62 | 49.56  | 50       | 30     | 70     | 1.935      | 1.918 | 0.87  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 51.27  | 50       | 30     | 70     | 2.413      | 2.474 | 2.54  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.76 | 49.97  | 50       | 30     | 70     | 1.460      | 1.459 | 0.07  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.89 | 49.93  | 50       | 30     | 70     | 1.379      | 1.377 | 0.14  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.85 | 44.52  | 50       | 30     | 70     | 0.881      | 0.785 | 10.95 |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 49.21  | 50       | 31.5   | 69.5   | 1.346      | 1.325 | 1.57  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 47.47  | 50       | 30     | 70     | 1.205      | 1.144 | 5.06  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 50.20  | 50       | 30     | 70     | 1.723      | 1.730 | 0.39  |      |
| Hexachloroethane            | 1    | 0         |      | 6.16 | 50.35  | 50       | 27.5   | 65     | 0.534      | 0.538 | 0.71  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 47.08  | 50       | 29.5   | 85     | 0.837      | 0.788 | 5.85  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 47.91  | 50       | 30     | 70     | 1.203      | 1.153 | 4.18  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.19 | 24.39  | 25       | **     |        | 0.126      | 0.122 | 2.44  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 50.07  | 50       | 27     | 79     | 0.334      | 0.335 | 0.14  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 47.64  | 50       | 26     | 90     | 0.617      | 0.588 | 4.73  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 50.60  | 50       | 30.5   | 81.5   | 0.178      | 0.179 | 1.19  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 48.66  | 50       | 29     | 65     | 0.332      | 0.323 | 2.68  |      |
| Benzoic Acid                | 1    | 0         |      | 6.56 | 40.51  | 50       | 5      | 70     | 0.326      | 0.265 | 18.99 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 49.93  | 50       | 26     | 82     | 0.418      | 0.417 | 0.13  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.64 | 49.75  | 50       | 27     | 65     | 0.280      | 0.278 | 0.51  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.71 | 49.89  | 50       | 25.5   | 65     | 0.312      | 0.311 | 0.22  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 49.23  | 50       | 35     | 65     | 1.067      | 1.050 | 1.54  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.80 | 47.60  | 50       | 15     | 115    | 0.353      | 0.380 | 4.80  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.86 | 50.10  | 50       | 34     | 65     | 0.158      | 0.158 | 0.20  |      |
| Caprolactam                 | 1    | 0         |      | 7.06 | 45.31  | 50       | 30     | 70     | 0.116      | 0.105 | 9.38  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.16 | 48.31  | 50       | 34     | 65     | 0.279      | 0.269 | 3.38  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 51.00  | 50       | 30     | 70     | 0.696      | 0.710 | 2.01  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 49.90  | 50       | 30     | 70     | 0.677      | 0.675 | 0.21  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.30 | 100.87 | 100      | **     |        |            | 0.692 | 0.87  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.06  | 50       | 30     | 70     | 0.811      | 0.812 | 0.12  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.16 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.43 | 50.14  | 50       | 30     | 70     | 0.528      | 0.530 | 0.28  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.42 | 56.09  | 50       | 5      | 70     | 0.243      | 0.283 | 12.18 |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 48.17  | 50       | 34.5   | 65     | 0.344      | 0.331 | 3.65  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.54 | 48.75  | 50       | 30     | 70     | 0.354      | 0.345 | 2.50  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.58 | 24.75  | 25       | **     |        | 1.270      | 1.257 | 1.01  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 49.46  | 50       | 35     | 65     | 1.087      | 1.075 | 1.08  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.97 | 50.03  | 50       | 30     | 70     | 0.944      | 0.944 | 0.06  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.97 | 50.03  |          | **     |        |            |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 1 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0487

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/24/2018 8:33:00

Data File: 7M95315.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                  | Co# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|-----|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1   | 0         |      | 7.76  | 49.47 | 50       | 30     | 70     | 0.809      | 0.800 | 1.06  |      |
| 2-Nitroaniline             | 1   | 0         |      | 7.76  | 50.36 | 50       | 30     | 70     | 0.325      | 0.328 | 0.72  |      |
| Coumarin                   | 1   | 0         |      | 7.94  | 49.85 | 50       | 30     | 70     | 0.453      | 0.452 | 0.29  |      |
| Acenaphthylene             | 1   | 0         |      | 8.04  | 49.31 | 50       | 30     | 65     | 1.623      | 1.601 | 1.37  |      |
| Dimethylphthalate          | 1   | 0         |      | 7.91  | 49.52 | 50       | 25     | 65     | 1.193      | 1.182 | 0.96  |      |
| 2,6-Dinitrotoluene         | 1   | 0         |      | 7.96  | 53.84 | 50       | 34     | 68.5   | 0.258      | 0.278 | 7.68  |      |
| Acenaphthene               | 1   | 0         |      | 8.19  | 49.87 | 50       | 35     | 65     | 1.110      | 1.108 | 0.26  |      |
| 3-Nitroaniline             | 1   | 0         |      | 8.11  | 53.73 | 50       | 30     | 70     | 0.286      | 0.307 | 7.46  |      |
| 2,4-Dinitrophenol          | 1   | 0         |      | 8.20  | 55.42 | 50       | 19.5   | 86.5   | 0.112      | 0.133 | 10.84 |      |
| Dibenzofuran               | 1   | 0         |      | 8.34  | 49.04 | 50       | 30     | 70     | 1.566      | 1.536 | 1.93  |      |
| 2,4-Dinitrotoluene         | 1   | 0         |      | 8.32  | 49.96 | 50       | 26.5   | 65     | 0.338      | 0.364 | 0.09  |      |
| 4-Nitrophenol              | 1   | 0         |      | 8.23  | 51.39 | 50       | 12.5   | 65     | 0.194      | 0.207 | 2.78  |      |
| 2,3,4,6-Tetrachlorophenol  | 1   | 0         |      | 8.45  | 48.71 | 50       | 30     | 70     | 0.301      | 0.302 | 2.58  |      |
| Fluorene                   | 1   | 0         |      | 8.66  | 49.50 | 50       | 35     | 65     | 1.226      | 1.214 | 0.99  |      |
| 4-Chlorophenyl-phenylether | 1   | 0         |      | 8.65  | 49.72 | 50       | 28.5   | 72.5   | 0.565      | 0.562 | 0.55  |      |
| Diethylphthalate           | 1   | 0         |      | 8.54  | 48.41 | 50       | 23.5   | 65     | 1.199      | 1.161 | 3.18  |      |
| 4-Nitroaniline             | 1   | 0         |      | 8.66  | 47.53 | 50       | 30     | 70     | 0.327      | 0.334 | 4.95  |      |
| Atrazine                   | 1   | 0         |      | 9.29  | 45.99 | 50       | 5      | 70     | 0.360      | 0.331 | 8.03  |      |
| Phenanthrene-d10           | 1   | 0         | I    | 9.60  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1   | 0         |      | 8.70  | 60.57 | 50       | 28     | 65     | 0.087      | 0.104 | 21.15 |      |
| n-Nitrosodiphenylamine     | 1   | 0         |      | 8.77  | 48.55 | 50       | 30     | 70     | 0.621      | 0.603 | 2.89  |      |
| 2,4,6-Tribromophenol       | 1   | 0         | S    | 8.89  | 47.59 | 50       | **     |        | 0.091      | 0.090 | 4.83  |      |
| 1,2-Diphenylhydrazine      | 1   | 0         |      | 8.81  | 48.10 | 50       | 30     | 70     | 0.708      | 0.681 | 3.80  |      |
| 4-Bromophenyl-phenylether  | 1   | 0         |      | 9.14  | 47.82 | 50       | 35     | 65     | 0.197      | 0.188 | 4.37  |      |
| Hexachlorobenzene          | 1   | 0         |      | 9.21  | 48.66 | 50       | 19     | 71     | 0.200      | 0.195 | 2.68  |      |
| N-Octadecane               | 1   | 0         |      | 9.49  | 48.27 | 50       | 30     | 70     | 0.381      | 0.368 | 3.45  |      |
| Pentachlorophenol          | 1   | 0         |      | 9.40  | 50.40 | 50       | 21     | 76     | 0.122      | 0.119 | 0.80  |      |
| Phenanthrene               | 1   | 0         |      | 9.63  | 49.48 | 50       | 33.5   | 65     | 1.081      | 1.070 | 1.03  |      |
| Anthracene                 | 1   | 0         |      | 9.68  | 49.59 | 50       | 29     | 65     | 1.096      | 1.087 | 0.83  |      |
| Carbazole                  | 1   | 0         |      | 9.85  | 48.21 | 50       | 30     | 70     | 1.001      | 0.965 | 3.58  |      |
| Di-n-butylphthalate        | 1   | 0         |      | 10.24 | 48.26 | 50       | 26     | 65     | 1.141      | 1.102 | 3.48  |      |
| Fluoranthene               | 1   | 0         |      | 10.95 | 49.71 | 50       | 23.5   | 65     | 1.120      | 1.113 | 0.58  |      |
| Chrysene-d12               | 1   | 0         | I    | 12.64 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1   | 0         |      | 11.21 | 50.06 | 50       | 35     | 65     | 1.158      | 1.159 | 0.11  |      |
| Benzidine                  | 1   | 0         |      | 11.10 | 28.56 | 50       | 2.5    | 75     | 0.347      | 0.226 | 42.87 |      |
| Terphenyl-d14              | 1   | 0         | S    | 11.40 | 24.41 | 25       | **     |        | 0.686      | 0.670 | 2.38  |      |
| 4,4'-DDE                   | 1   | 0         |      | 11.34 | 48.73 |          | **     |        | 0.240      |       |       |      |
| 4,4'-DDD                   | 1   | 0         |      | 11.74 | 48.12 |          | **     |        | 0.408      |       |       |      |
| Butylbenzylphthalate       | 1   | 0         |      | 11.99 | 43.68 | 50       | 21.5   | 70     | 0.509      | 0.463 | 12.65 |      |
| 4,4'-DDT                   | 1   | 0         |      | 12.09 | 57.17 |          | **     |        | 0.309      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1   | 0         |      | 12.60 | 45.06 | 50       | 9      | 107    | 0.316      | 0.310 | 9.88  |      |
| Benzo[a]anthracene         | 1   | 0         |      | 12.63 | 48.51 | 50       | 21     | 66.5   | 1.100      | 1.068 | 2.97  |      |
| Chrysene                   | 1   | 0         |      | 12.67 | 51.41 | 50       | 22     | 70     | 1.013      | 1.042 | 2.83  |      |
| bis(2-Ethylhexyl)phthalate | 1   | 0         |      | 12.70 | 44.22 | 50       | 21.5   | 68.5   | 0.688      | 0.639 | 11.56 |      |
| Perylene-d12               | 1   | 0         | I    | 14.24 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1   | 0         |      | 13.44 | 38.82 | 50       | 10.5   | 66     | 1.287      | 1.089 | 22.37 |      |
| Benzo[b]fluoranthene       | 1   | 0         |      | 13.84 | 48.79 | 50       | 21     | 70     | 1.146      | 1.118 | 2.41  |      |
| Benzo[k]fluoranthene       | 1   | 0         |      | 13.87 | 52.42 | 50       | 12.5   | 73     | 1.101      | 1.154 | 4.84  |      |
| Benzo[a]pyrene             | 1   | 0         |      | 14.18 | 50.00 | 50       | 16     | 74     | 1.085      | 1.085 | 0.01  |      |
| Indeno[1,2,3-cd]pyrene     | 1   | 0         |      | 15.49 | 49.40 | 50       | 6.5    | 75.5   | 1.160      | 1.146 | 1.20  |      |
| Dibenzo[a,h]anthracene     | 1   | 0         |      | 15.51 | 49.10 | 50       | 6.5    | 100    | 0.966      | 0.949 | 1.79  |      |
| Benzo[g,h,i]perylene       | 1   | 0         |      | 15.84 | 50.40 | 50       | 6.5    | 97.5   | 0.972      | 0.980 | 0.81  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 2 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0488

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/24/2018 8:33:00

Data File: 7M95315.D  
 Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                      | Co# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|-----|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1   | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1   | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1   | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1   | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.686         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1   | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.944         | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 3 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 7M95315.D  
Acq On : 10/24/18 08:33

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/24/18 08:48  
Qt Upd On: 10/09/18 08:53

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-24-18\  
Qt Path : G:\GCMSData\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.515  | 96   | 78417      | 40.00    | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 133949     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.751  | 136  | 493459     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 285348     | 40.00    | ng    | -0.01    |
| 77) Phenanthrene-d10           | 9.604  | 188  | 495180     | 40.00    | ng    | -0.01    |
| 91) Chrysene-d12               | 12.639 | 240  | 486476     | 40.00    | ng    | -0.01    |
| 103) Perylene-d12              | 14.241 | 264  | 421621     | 40.00    | ng    | -0.03    |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 203009     | 48.26    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.26%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 290778     | 48.80    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.80%   |       |          |
| 32) Nitrobenzene-d5            | 6.190  | 128  | 37778      | 24.39    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.78%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.585  | 172  | 224222     | 24.75    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.50%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.894  | 330  | 55538      | 47.59    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 47.59%   |       |          |
| 94) Terphenyl-d14              | 11.399 | 244  | 203708     | 24.41    | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 48.82%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 94821      | 51.4756  | ng    | 89       |
| 9) Pyridine                    | 2.974  | 79   | 242716     | 49.6878  | ng    | 59       |
| 10) N-Nitrosodimethylamine     | 2.910  | 74   | 135547     | 47.6857  | ng    | 64       |
| 12) Benzaldehyde               | 5.362  | 77   | 76509      | 34.9903  | ng    | 73       |
| 13) Aniline                    | 5.459  | 93   | 272988m    | 49.1579  | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 72791      | 51.2319  | ng    | 84       |
| 15) bis(2-Chloroethyl) ether   | 5.517  | 93   | 215102     | 50.0399  | ng    | 75       |
| 17) Phenol                     | 5.437  | 94   | 293659     | 49.6289  | ng    | 76       |
| 18) 2-Chlorophenol             | 5.560  | 128  | 219536     | 49.9250  | ng    | 76       |
| 19) N-Decane                   | 5.619  | 57   | 188039     | 49.5629  | ng    | 84       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 242547     | 51.2683  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 244246     | 49.9655  | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 230592     | 49.9317  | ng    | 97       |
| 24) Benzyl alcohol             | 5.854  | 108  | 131414     | 44.5244  | ng    | 68       |
| 25) bis(2-chloroisopropyl)...  | 5.971  | 45   | 221869     | 49.2147  | ng    | 95       |
| 26) 2-Methylphenol             | 5.950  | 108  | 191622     | 47.4683  | ng    | 96       |
| 27) Acetophenone               | 6.073  | 105  | 289629     | 50.1958  | ng    | 68       |
| 28) Hexachloroethane           | 6.164  | 117  | 90078      | 50.3527  | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 131980     | 47.0767  | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 193035     | 47.9098  | ng    | 99       |
| 33) Nitrobenzene               | 6.207  | 77   | 206487     | 50.0712  | ng    | 73       |
| 34) Isophorone                 | 6.393  | 82   | 362723     | 47.6373  | ng    | 86       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 110432     | 50.5953  | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.484  | 107  | 199516     | 48.6582  | ng    | 90       |
| 37) Benzoic Acid               | 6.559  | 105  | 163447     | 40.5070  | ng    | 40       |
| 38) bis(2-Chloroethoxy)met...  | 6.559  | 93   | 257419     | 49.9334  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.639  | 162  | 171565     | 49.7470  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 191940     | 49.8915  | ng    | 98       |
| 41) Naphthalene                | 6.767  | 128  | 647816     | 49.2321  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.799  | 127  | 234171m    | 47.5977  | ng    |          |
| 43) Hexachlorobutadiene        | 6.864  | 225  | 97749      | 50.1002  | ng    | 96       |
| 44) Caprolactam                | 7.061  | 113  | 65002      | 45.3079  | ng    | 57       |
| 45) 4-Chloro-3-methylphenol    | 7.163  | 107  | 165990     | 48.3086  | ng    | 74       |
| 46) 2-Methylnaphthalene        | 7.296  | 142  | 437742     | 51.0048  | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.376  | 142  | 416445     | 49.8962  | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.296  | 142  | 854039m    | 100.8701 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.670  | 154  | 500983     | 50.0624  | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 188987     | 50.1421  | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.425  | 237  | 100843     | 56.0916  | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.515  | 196  | 118090     | 48.1747  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.542  | 196  | 123097     | 48.7481  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 383515     | 49.4612  | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.969  | 156  | 336764     | 50.0300  | ng    | 84       |
| 58) Dimethylnaphthalenes (...) | 7.969  | 156  | 336764     | 50.0300  | ng    | 84       |
| 59) Diphenyl Ether             | 7.756  | 170  | 285435     | 49.4717  | ng    | 73       |
| 60) 2-Nitroaniline             | 7.761  | 65   | 116907     | 50.3600  | ng    | 46       |
| 61) Coumarin                   | 7.943  | 146  | 161190     | 49.8542  | ng    | 86       |
| 62) Acenaphthylene             | 8.044  | 152  | 571007     | 49.3145  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 421490     | 49.5225  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.964  | 165  | 99014      | 53.8418  | ng    | 60       |
| 65) Acenaphthene               | 8.194  | 153  | 395052     | 49.8688  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 7M95315.D  
 Acq On : 10/24/18 08:33

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/24/18 08:48  
 Qt Upd On: 10/09/18 08:53

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-24-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.108  | 138  | 109481   | 53.7288 | ng    | 74       |
| 67) 2,4-Dinitrophenol          | 8.199  | 184  | 47423    | 55.4210 | ng    | 41       |
| 68) Dibenzofuran               | 8.343  | 168  | 547692   | 49.0365 | ng    | 86       |
| 69) 2,4-Dinitrotoluene         | 8.317  | 165  | 129763   | 49.9571 | ng    | 55       |
| 70) 4-Nitrophenol              | 8.231  | 65   | 73707    | 51.3902 | ng    | 82       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.450  | 232  | 107552   | 48.7079 | ng    | 85       |
| 72) Fluorene                   | 8.664  | 166  | 433000   | 49.5042 | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.653  | 204  | 200387   | 49.7249 | ng    | 86       |
| 74) Diethylphthalate           | 8.536  | 149  | 413944   | 48.4095 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.664  | 138  | 119161   | 47.5257 | ng    | 67       |
| 76) Atrazine                   | 9.289  | 200  | 118223   | 45.9873 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.696  | 198  | 64317    | 60.5735 | ng    | 71       |
| 79) n-Nitrosodiphenylamine     | 8.765  | 169  | 373261   | 48.5541 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.808  | 77   | 421462   | 48.1010 | ng    | 81       |
| 82) 4-Bromophenyl-phenylether  | 9.139  | 248  | 116533   | 47.8167 | ng    | 82       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 120460   | 48.6624 | ng    | 65       |
| 84) N-Octadecane               | 9.487  | 57   | 227611   | 48.2731 | ng    | 63       |
| 85) Pentachlorophenol          | 9.401  | 266  | 73611    | 50.4004 | ng    | 96       |
| 86) Phenanthrene               | 9.631  | 178  | 662120   | 49.4842 | ng    | 100      |
| 87) Anthracene                 | 9.684  | 178  | 672745   | 49.5860 | ng    | 99       |
| 88) Carbazole                  | 9.850  | 167  | 597418   | 48.2102 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 681823   | 48.2577 | ng    | 97       |
| 90) Fluoranthene               | 10.950 | 202  | 689033   | 49.7112 | ng    | 94       |
| 92) Pyrene                     | 11.212 | 202  | 705033   | 50.0566 | ng    | 90       |
| 93) Benzidine                  | 11.100 | 184  | 137369   | 28.5641 | ng    | 88       |
| 95) 4,4'-DDE                   | 11.340 | 246  | 142083   | 48.7290 | ng    | 94       |
| 96) 4,4'-DDD                   | 11.736 | 235  | 238712   | 48.1189 | ng    | 95       |
| 97) Butylbenzylphthalate       | 11.992 | 149  | 281576   | 43.6753 | ng    | 73       |
| 98) 4,4'-DDT                   | 12.094 | 235  | 212430   | 57.1719 | ng    | 97       |
| 99) 3,3'-Dichlorobenzidine     | 12.601 | 252  | 188297   | 45.0582 | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.628 | 228  | 649207   | 48.5137 | ng    | 99       |
| 101) Chrysene                  | 12.671 | 228  | 633578   | 51.4147 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.697 | 149  | 388819   | 44.2194 | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.440 | 149  | 574151   | 38.8174 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 13.835 | 252  | 589377m  | 48.7927 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.867 | 252  | 608358   | 52.4220 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.177 | 252  | 571758   | 49.9955 | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.491 | 276  | 603943   | 49.3999 | ng    | 89       |
| 109) Dibenzo[a,h]anthracene    | 15.513 | 278  | 499885   | 49.1030 | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.844 | 276  | 516519   | 50.4045 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Form7

Continuing Calibration

8101509 0492

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/23/2018 8:34:00

Data File: 7M95311.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc   | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|--------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.51 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.54 | 50.51  | 50       | 5      | 70     | 0.940      | 0.949 | 1.03  |      |
| Pyridine                    | 1    | 0         |      | 2.97 | 50.48  | 50       | 2.5    | 75     | 2.543      | 2.516 | 0.97  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.91 | 48.95  | 50       | 15     | 70     | 1.450      | 1.420 | 2.09  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 49.31  | 50       | **     |        | 2.146      | 2.116 | 1.37  |      |
| Benzaldehyde                | 1    | 0         |      | 5.36 | 34.57  | 50       | 2.5    | 115    | 1.115      | 0.771 | 30.86 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 50.17  | 50       | 5      | 70     | 2.833      | 2.842 | 0.35  |      |
| Pentachloroethane           | 1    | 0         |      | 5.51 | 51.55  | 50       | 30     | 70     | 0.725      | 0.747 | 3.11  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 50.89  | 50       | 26     | 65     | 2.222      | 2.231 | 1.77  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 49.50  | 50       | **     |        | 3.039      | 3.009 | 1.00  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 49.66  | 50       | 24     | 65     | 3.018      | 2.998 | 0.68  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 50.24  | 50       | 27.5   | 65     | 2.243      | 2.254 | 0.47  |      |
| N-Decane                    | 1    | 0         |      | 5.62 | 50.04  | 50       | 30     | 70     | 1.935      | 1.937 | 0.07  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 51.15  | 50       | 30     | 70     | 2.413      | 2.469 | 2.31  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.76 | 49.33  | 50       | 30     | 70     | 1.460      | 1.440 | 1.33  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.89 | 49.63  | 50       | 30     | 70     | 1.379      | 1.369 | 0.75  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.85 | 46.18  | 50       | 30     | 70     | 0.881      | 0.814 | 7.65  |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 48.55  | 50       | 31.5   | 69.5   | 1.346      | 1.307 | 2.91  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 47.75  | 50       | 30     | 70     | 1.205      | 1.151 | 4.49  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 49.49  | 50       | 30     | 70     | 1.723      | 1.705 | 1.03  |      |
| Hexachloroethane            | 1    | 0         |      | 6.16 | 50.34  | 50       | 27.5   | 65     | 0.534      | 0.538 | 0.67  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 46.23  | 50       | 29.5   | 85     | 0.837      | 0.774 | 7.53  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 48.60  | 50       | 30     | 70     | 1.203      | 1.169 | 2.80  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.19 | 24.89  | 25       | **     |        | 0.126      | 0.125 | 0.46  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 50.49  | 50       | 27     | 79     | 0.334      | 0.338 | 0.98  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 48.74  | 50       | 26     | 90     | 0.617      | 0.602 | 2.53  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 51.16  | 50       | 30.5   | 81.5   | 0.178      | 0.181 | 2.32  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 48.82  | 50       | 29     | 65     | 0.332      | 0.325 | 2.35  |      |
| Benzoic Acid                | 1    | 0         |      | 6.56 | 43.36  | 50       | 5      | 70     | 0.326      | 0.285 | 13.28 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 50.04  | 50       | 26     | 82     | 0.418      | 0.418 | 0.07  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.64 | 50.30  | 50       | 27     | 65     | 0.280      | 0.281 | 0.60  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.71 | 50.39  | 50       | 25.5   | 65     | 0.312      | 0.314 | 0.78  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 48.78  | 50       | 35     | 65     | 1.067      | 1.041 | 2.45  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.80 | 48.34  | 50       | 15     | 115    | 0.353      | 0.385 | 3.32  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.86 | 50.08  | 50       | 34     | 65     | 0.158      | 0.158 | 0.17  |      |
| Caprolactam                 | 1    | 0         |      | 7.06 | 46.23  | 50       | 30     | 70     | 0.116      | 0.108 | 7.54  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.16 | 49.84  | 50       | 34     | 65     | 0.279      | 0.278 | 0.31  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 50.79  | 50       | 30     | 70     | 0.696      | 0.707 | 1.58  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 50.32  | 50       | 30     | 70     | 0.677      | 0.681 | 0.64  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.38 | 101.06 | 100      | **     |        |            | 0.694 | 1.06  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.08  | 50       | 30     | 70     | 0.811      | 0.813 | 0.17  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.17 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.43 | 50.39  | 50       | 30     | 70     | 0.528      | 0.533 | 0.79  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.42 | 56.81  | 50       | 5      | 70     | 0.243      | 0.287 | 13.62 |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 54.04  | 50       | 34.5   | 65     | 0.344      | 0.371 | 8.08  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.55 | 45.96  | 50       | 30     | 70     | 0.354      | 0.325 | 8.07  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.58 | 25.11  | 25       | **     |        | 1.270      | 1.276 | 0.44  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 50.35  | 50       | 35     | 65     | 1.087      | 1.094 | 0.69  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.97 | 50.15  | 50       | 30     | 70     | 0.944      | 0.946 | 0.29  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.97 | 50.15  |          | **     |        |            |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 1 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

# Form7

Continuing Calibration

8101509 0493

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/23/2018 8:34:00

Data File: 7M95311.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.76  | 49.66 | 50       | 30     | 70     | 0.809      | 0.803 | 0.67  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.76  | 50.99 | 50       | 30     | 70     | 0.325      | 0.332 | 1.99  |      |
| Coumarin                   | 1    | 0         |      | 7.94  | 49.84 | 50       | 30     | 70     | 0.453      | 0.452 | 0.32  |      |
| Acenaphthylene             | 1    | 0         |      | 8.04  | 49.82 | 50       | 30     | 65     | 1.623      | 1.617 | 0.36  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.91  | 50.23 | 50       | 25     | 65     | 1.193      | 1.198 | 0.45  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 7.96  | 53.90 | 50       | 34     | 68.5   | 0.258      | 0.278 | 7.80  |      |
| Acenaphthene               | 1    | 0         |      | 8.19  | 49.78 | 50       | 35     | 65     | 1.110      | 1.106 | 0.44  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.11  | 53.93 | 50       | 30     | 70     | 0.286      | 0.308 | 7.86  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.20  | 58.41 | 50       | 19.5   | 86.5   | 0.112      | 0.141 | 16.82 |      |
| Dibenzofuran               | 1    | 0         |      | 8.34  | 49.25 | 50       | 30     | 70     | 1.566      | 1.542 | 1.49  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.32  | 50.44 | 50       | 26.5   | 65     | 0.338      | 0.367 | 0.88  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.23  | 50.78 | 50       | 12.5   | 65     | 0.194      | 0.204 | 1.55  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.45  | 48.69 | 50       | 30     | 70     | 0.301      | 0.301 | 2.63  |      |
| Fluorene                   | 1    | 0         |      | 8.66  | 49.80 | 50       | 35     | 65     | 1.226      | 1.221 | 0.41  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.66  | 49.84 | 50       | 28.5   | 72.5   | 0.565      | 0.563 | 0.31  |      |
| Diethylphthalate           | 1    | 0         |      | 8.54  | 49.25 | 50       | 23.5   | 65     | 1.199      | 1.181 | 1.51  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.66  | 47.57 | 50       | 30     | 70     | 0.327      | 0.334 | 4.85  |      |
| Atrazine                   | 1    | 0         |      | 9.29  | 46.52 | 50       | 5      | 70     | 0.360      | 0.335 | 6.97  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.60  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.70  | 61.84 | 50       | 28     | 65     | 0.087      | 0.106 | 23.67 |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.77  | 48.23 | 50       | 30     | 70     | 0.621      | 0.599 | 3.53  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.89  | 47.59 | 50       | **     |        | 0.091      | 0.090 | 4.83  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.81  | 47.95 | 50       | 30     | 70     | 0.708      | 0.679 | 4.09  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.14  | 48.15 | 50       | 35     | 65     | 0.197      | 0.190 | 3.70  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.21  | 47.92 | 50       | 19     | 71     | 0.200      | 0.192 | 4.16  |      |
| N-Octadecane               | 1    | 0         |      | 9.49  | 48.97 | 50       | 30     | 70     | 0.381      | 0.373 | 2.05  |      |
| Pentachlorophenol          | 1    | 0         |      | 9.40  | 50.10 | 50       | 21     | 76     | 0.122      | 0.118 | 0.20  |      |
| Phenanthrene               | 1    | 0         |      | 9.63  | 48.84 | 50       | 33.5   | 65     | 1.081      | 1.056 | 2.32  |      |
| Anthracene                 | 1    | 0         |      | 9.68  | 49.00 | 50       | 29     | 65     | 1.096      | 1.074 | 2.00  |      |
| Carbazole                  | 1    | 0         |      | 9.85  | 48.44 | 50       | 30     | 70     | 1.001      | 0.970 | 3.11  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.24 | 47.85 | 50       | 26     | 65     | 1.141      | 1.092 | 4.30  |      |
| Fluoranthene               | 1    | 0         |      | 10.95 | 49.19 | 50       | 23.5   | 65     | 1.120      | 1.101 | 1.63  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.64 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.21 | 49.87 | 50       | 35     | 65     | 1.158      | 1.155 | 0.26  |      |
| Benzidine                  | 1    | 0         |      | 11.10 | 31.82 | 50       | 2.5    | 75     | 0.347      | 0.251 | 36.36 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.40 | 24.60 | 25       | **     |        | 0.686      | 0.675 | 1.61  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.34 | 48.32 |          | **     |        | 0.240      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.74 | 47.98 |          | **     |        | 0.408      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 11.99 | 44.58 | 50       | 21.5   | 70     | 0.509      | 0.473 | 10.84 |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.09 | 58.07 |          | **     |        | 0.309      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.60 | 46.34 | 50       | 9      | 107    | 0.316      | 0.318 | 7.32  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.63 | 48.15 | 50       | 21     | 66.5   | 1.100      | 1.060 | 3.69  |      |
| Chrysene                   | 1    | 0         |      | 12.67 | 50.99 | 50       | 22     | 70     | 1.013      | 1.033 | 1.97  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.70 | 45.19 | 50       | 21.5   | 68.5   | 0.688      | 0.654 | 9.62  |      |
| Perylene-d12               | 1    | 0         | I    | 14.24 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.44 | 40.57 | 50       | 10.5   | 66     | 1.287      | 1.139 | 18.86 |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.84 | 51.34 | 50       | 21     | 70     | 1.146      | 1.179 | 2.68  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.87 | 54.16 | 50       | 12.5   | 73     | 1.101      | 1.193 | 8.32  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.18 | 49.93 | 50       | 16     | 74     | 1.085      | 1.084 | 0.13  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.50 | 50.10 | 50       | 6.5    | 75.5   | 1.160      | 1.162 | 0.19  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.52 | 49.53 | 50       | 6.5    | 100    | 0.966      | 0.957 | 0.94  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 15.85 | 50.28 | 50       | 6.5    | 97.5   | 0.972      | 0.978 | 0.56  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 2 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF



## Form7

8101509 0494

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/23/2018 8:34:00

Data File: 7M95311.D  
Method: EPA 625.I

Instrument: GCMS 7

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.686         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.944         | 0.000 | 100.00 |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 3 of 3

\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

SampleID : CAL BNA50PPM  
Data File: 7M95311.D  
Acq On : 10/23/18 08:34

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/23/18 08:53  
Qt Upd On: 10/09/18 08:53

Data Path : G:\GCMSDATA\2018\GCMS\_7\Data\10-23-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 79519      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 136612     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.751  | 136  | 496237     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.167  | 164  | 284638     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.604  | 188  | 500542     | 40.00    | ng    | -0.01    |
| 91) Chrysene-d12               | 12.639 | 240  | 489701     | 40.00    | ng    | -0.01    |
| 103) Perylene-d12              | 14.241 | 264  | 426187     | 40.00    | ng    | -0.03    |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 210360     | 49.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 49.31%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 299097     | 49.50    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 49.50%   |       |          |
| 32) Nitrobenzene-d5            | 6.191  | 128  | 38764      | 24.89    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.78%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.585  | 172  | 226937     | 25.11    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.22%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.894  | 330  | 56139      | 47.59    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 47.59%   |       |          |
| 94) Terphenyl-d14              | 11.399 | 244  | 206672     | 24.60    | ng    | -0.01    |
| Spiked Amount 50.000           |        |      | Recovery = | 49.20%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 94359      | 50.5149  | ng    | 90       |
| 9) Pyridine                    | 2.975  | 79   | 250124     | 50.4834  | ng    | 60       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 141105     | 48.9530  | ng    | 66       |
| 12) Benzaldehyde               | 5.363  | 77   | 76654      | 34.5708  | ng    | 69       |
| 13) Aniline                    | 5.459  | 93   | 282540     | 50.1728  | ng    | 82       |
| 14) Pentachloroethane          | 5.507  | 117  | 74276      | 51.5526  | ng    | 84       |
| 15) bis(2-Chloroethyl)ether    | 5.517  | 93   | 221771     | 50.8873  | ng    | 75       |
| 17) Phenol                     | 5.437  | 94   | 297969     | 49.6594  | ng    | 77       |
| 18) 2-Chlorophenol             | 5.560  | 128  | 224010     | 50.2364  | ng    | 77       |
| 19) N-Decane                   | 5.619  | 57   | 192503     | 50.0363  | ng    | 86       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 245405     | 51.1536  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 245948     | 49.3329  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 233735     | 49.6256  | ng    | 97       |
| 24) Benzyl alcohol             | 5.854  | 108  | 139001     | 46.1769  | ng    | 67       |
| 25) bis(2-chloroisopropyl)...  | 5.972  | 45   | 223202     | 48.5453  | ng    | 94       |
| 26) 2-Methylphenol             | 5.950  | 108  | 196611     | 47.7548  | ng    | 97       |
| 27) Acetophenone               | 6.073  | 105  | 291204     | 49.4850  | ng    | 68       |
| 28) Hexachloroethane           | 6.164  | 117  | 91839      | 50.3363  | ng    | 87       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 132197     | 46.2349  | ng    | 87       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 199704     | 48.5989  | ng    | 99       |
| 33) Nitrobenzene               | 6.207  | 77   | 209392     | 50.4914  | ng    | 74       |
| 34) Isophorone                 | 6.394  | 82   | 373186     | 48.7371  | ng    | 86       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 112352     | 51.1593  | ng    | 78       |
| 36) 2,4-Dimethylphenol         | 6.484  | 107  | 201319     | 48.8230  | ng    | 88       |
| 37) Benzoic Acid               | 6.559  | 105  | 177000     | 43.3602  | ng    | 43       |
| 38) bis(2-Chloroethoxy)met...  | 6.559  | 93   | 259399     | 50.0358  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.639  | 162  | 174440     | 50.2975  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 194955     | 50.3915  | ng    | 97       |
| 41) Naphthalene                | 6.768  | 128  | 645435     | 48.7766  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.800  | 127  | 238918m    | 48.3414  | ng    |          |
| 43) Hexachlorobutadiene        | 6.864  | 225  | 98266      | 50.0833  | ng    | 97       |
| 44) Caprolactam                | 7.061  | 113  | 66695      | 46.2277  | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.163  | 107  | 172232     | 49.8446  | ng    | 77       |
| 46) 2-Methylnaphthalene        | 7.296  | 142  | 438349     | 50.7896  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 422362     | 50.3218  | ng    | 91       |
| 48) Methylnaphthalenes (To...  | 7.377  | 142  | 860479m    | 101.0618 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.670  | 154  | 504029     | 50.0848  | ng    | 94       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.430  | 216  | 189464     | 50.3940  | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.425  | 237  | 101950     | 56.8111  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.515  | 196  | 132143     | 54.0421  | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.547  | 196  | 115778     | 45.9641  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 389410     | 50.3467  | ng    | 90       |
| 57) 1,4-Dimethylnaphthalene    | 7.970  | 156  | 336708     | 50.1464  | ng    | 85       |
| 58) Dimethylnaphthalenes (...) | 7.970  | 156  | 336708     | 50.1464  | ng    | 85       |
| 59) Diphenyl Ether             | 7.756  | 170  | 285829     | 49.6635  | ng    | 75       |
| 60) 2-Nitroaniline             | 7.761  | 65   | 118081     | 50.9926  | ng    | 44       |
| 61) Coumarin                   | 7.943  | 146  | 160749     | 49.8418  | ng    | 85       |
| 62) Acenaphthylene             | 8.044  | 152  | 575443     | 49.8216  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 426407     | 50.2252  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.964  | 165  | 98876      | 53.9008  | ng    | 59       |
| 65) Acenaphthene               | 8.194  | 153  | 393375     | 49.7810  | ng    | 99       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 7M95311.D  
 Acq On : 10/23/18 08:34

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 7M\_1008.M  
 Qt On : 10/23/18 08:53  
 Qt Upd On: 10/09/18 08:53

Data Path : G:\GCMSDATA\2018\GCMS\_7\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.108  | 138  | 109620   | 53.9312 | ng    | 75       |
| 67)  | 2,4-Dinitrophenol         | 8.199  | 184  | 50172    | 58.4121 | ng    | 46       |
| 68)  | Dibenzofuran              | 8.343  | 168  | 548743   | 49.2531 | ng    | 85       |
| 69)  | 2,4-Dinitrotoluene        | 8.317  | 165  | 130729   | 50.4416 | ng    | 57       |
| 70)  | 4-Nitrophenol             | 8.231  | 65   | 72602    | 50.7765 | ng    | 85       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.450  | 232  | 107237   | 48.6869 | ng    | 85       |
| 72)  | Fluorene                  | 8.664  | 166  | 434473   | 49.7965 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.659  | 204  | 200368   | 49.8442 | ng    | 81       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 420058   | 49.2471 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.664  | 138  | 118986   | 47.5742 | ng    | 67       |
| 76)  | Atrazine                  | 9.289  | 200  | 119288   | 46.5173 | ng    | 98       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.696  | 198  | 66598    | 61.8370 | ng    | 71       |
| 79)  | n-Nitrosodiphenylamine    | 8.766  | 169  | 374817   | 48.2342 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.808  | 77   | 424712   | 47.9526 | ng    | 80       |
| 82)  | 4-Bromophenyl-phenylether | 9.139  | 248  | 118622   | 48.1524 | ng    | 79       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 119902   | 47.9181 | ng    | 66       |
| 84)  | N-Octadecane              | 9.487  | 57   | 233414   | 48.9735 | ng    | 66       |
| 85)  | Pentachlorophenol         | 9.401  | 266  | 73928    | 50.1010 | ng    | 95       |
| 86)  | Phenanthrene              | 9.631  | 178  | 660554   | 48.8383 | ng    | 99       |
| 87)  | Anthracene                | 9.684  | 178  | 672008   | 49.0011 | ng    | 99       |
| 88)  | Carbazole                 | 9.850  | 167  | 606814   | 48.4439 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 683352   | 47.8478 | ng    | 97       |
| 90)  | Fluoranthene              | 10.950 | 202  | 689136   | 49.1860 | ng    | 94       |
| 92)  | Pyrene                    | 11.212 | 202  | 707069   | 49.8705 | ng    | 92       |
| 93)  | Benzidine                 | 11.100 | 184  | 153782   | 31.8203 | ng    | 89       |
| 95)  | 4,4'-DDE                  | 11.340 | 246  | 141831   | 48.3222 | ng    | 95       |
| 96)  | 4,4'-DDD                  | 11.736 | 235  | 239587   | 47.9772 | ng    | 94       |
| 97)  | Butylbenzylphthalate      | 11.992 | 149  | 289421   | 44.5796 | ng    | 71       |
| 98)  | 4,4'-DDT                  | 12.094 | 235  | 217548   | 58.0729 | ng    | 98       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.601 | 252  | 194848   | 46.3419 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.628 | 228  | 648668   | 48.1542 | ng    | 99       |
| 101) | Chrysene                  | 12.671 | 228  | 632475   | 50.9872 | ng    | 100      |
| 102) | bis(2-Ethylhexyl)phtha... | 12.697 | 149  | 400107   | 45.1887 | ng    | 93       |
| 104) | Di-n-octylphthalate       | 13.440 | 149  | 606871   | 40.5685 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.841 | 252  | 628087   | 51.3422 | ng    | 94       |
| 106) | Benzo[k]fluoranthene      | 13.867 | 252  | 635339   | 54.1604 | ng    | 95       |
| 107) | Benzo[a]pyrene            | 14.183 | 252  | 577239   | 49.9340 | ng    | 96       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.497 | 276  | 619104   | 50.0975 | ng    | 89       |
| 109) | Dibenzo[a,h]anthracene    | 15.518 | 278  | 509704   | 49.5312 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 15.849 | 276  | 520824   | 50.2800 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/25/2018 9:19:00Data File: 5M105967.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc   | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|--------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.51 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.55 | 52.77  | 50          | 5         | 70        | 0.979         | 1.074 | 5.54  |      |
| Pyridine                    | 1    | 0            |      | 3.01 | 50.84  | 50          | 2.5       | 75        | 2.530         | 2.573 | 1.67  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 2.95 | 50.91  | 50          | 15        | 70        | 1.441         | 1.467 | 1.82  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.54 | 49.16  | 50          | **        |           | 2.077         | 2.042 | 1.67  |      |
| Benzaldehyde                | 1    | 0            |      | 5.37 | 37.37  | 50          | 2.5       | 115       | 1.211         | 0.905 | 25.26 |      |
| Aniline                     | 1    | 0            |      | 5.46 | 43.01  | 50          | 5         | 70        | 2.890         | 2.911 | 13.97 |      |
| Pentachloroethane           | 1    | 0            |      | 5.50 | 47.34  | 50          | 30        | 70        | 0.798         | 0.756 | 5.33  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.52 | 47.36  | 50          | 26        | 65        | 2.508         | 2.376 | 5.28  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.43 | 48.37  | 50          | **        |           | 3.202         | 3.098 | 3.27  |      |
| Phenol                      | 1    | 0            |      | 5.44 | 51.72  | 50          | 24        | 65        | 3.388         | 3.443 | 3.44  |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.56 | 49.06  | 50          | 27.5      | 65        | 2.390         | 2.345 | 1.87  |      |
| N-Decane                    | 1    | 0            |      | 5.60 | 48.55  | 50          | 30        | 70        | 2.744         | 2.664 | 2.91  |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.69 | 48.68  | 50          | 30        | 70        | 2.683         | 2.612 | 2.64  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.74 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.75 | 49.59  | 50          | 30        | 70        | 1.495         | 1.482 | 0.83  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 5.88 | 50.24  | 50          | 30        | 70        | 1.389         | 1.396 | 0.48  |      |
| Benzyl alcohol              | 1    | 0            |      | 5.86 | 50.08  | 50          | 30        | 70        | 0.819         | 0.820 | 0.15  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 5.97 | 50.31  | 50          | 31.5      | 69.5      | 1.886         | 1.898 | 0.62  |      |
| 2-Methylphenol              | 1    | 0            |      | 5.95 | 50.30  | 50          | 30        | 70        | 1.201         | 1.208 | 0.60  |      |
| Acetophenone                | 1    | 0            |      | 6.07 | 51.32  | 50          | 30        | 70        | 1.751         | 1.797 | 2.63  |      |
| Hexachloroethane            | 1    | 0            |      | 6.15 | 49.56  | 50          | 27.5      | 65        | 0.555         | 0.550 | 0.88  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.07 | 46.72  | 50          | 29.5      | 85        | 0.846         | 0.896 | 6.55  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.07 | 47.12  | 50          | 30        | 70        | 1.137         | 1.245 | 5.75  |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.75 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.20 | 25.59  | 25          | **        |           | 0.118         | 0.121 | 2.35  |      |
| Nitrobenzene                | 1    | 0            |      | 6.21 | 50.61  | 50          | 27        | 79        | 0.369         | 0.373 | 1.21  |      |
| Isophorone                  | 1    | 0            |      | 6.39 | 51.24  | 50          | 26        | 90        | 0.639         | 0.654 | 2.49  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.46 | 48.63  | 50          | 30.5      | 81.5      | 0.172         | 0.172 | 2.74  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.48 | 47.90  | 50          | 29        | 65        | 0.338         | 0.347 | 4.20  |      |
| Benzoic Acid                | 1    | 0            |      | 6.57 | 18.99  | 50          | 5         | 70        | 0.250         | 0.071 | 62.01 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.56 | 50.41  | 50          | 26        | 82        | 0.416         | 0.419 | 0.83  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.64 | 50.29  | 50          | 27        | 65        | 0.260         | 0.286 | 0.58  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.70 | 48.29  | 50          | 25.5      | 65        | 0.311         | 0.301 | 3.41  |      |
| Naphthalene                 | 1    | 0            |      | 6.76 | 50.17  | 50          | 35        | 65        | 1.070         | 1.073 | 0.34  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.81 | 50.38  | 50          | 15        | 115       | 0.321         | 0.384 | 0.75  |      |
| Hexachlorobutadiene         | 1    | 0            |      | 6.85 | 49.83  | 50          | 34        | 65        | 0.167         | 0.166 | 0.33  |      |
| Caprolactam                 | 1    | 0            |      | 7.08 | 47.01  | 50          | 30        | 70        | 0.100         | 0.102 | 5.99  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.17 | 50.14  | 50          | 34        | 65        | 0.282         | 0.286 | 0.28  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.30 | 50.45  | 50          | 30        | 70        | 0.687         | 0.694 | 0.90  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.37 | 51.22  | 50          | 30        | 70        | 0.676         | 0.693 | 2.43  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.30 | 101.51 | 100         | **        |           |               | 0.688 | 1.51  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.67 | 50.06  | 50          | 30        | 70        | 0.807         | 0.808 | 0.12  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.16 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.43 | 50.71  | 50          | 30        | 70        | 0.554         | 0.562 | 1.43  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.41 | 45.01  | 50          | 5         | 70        | 0.189         | 0.174 | 9.97  |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.52 | 47.96  | 50          | 34.5      | 65        | 0.304         | 0.312 | 4.07  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.55 | 51.49  | 50          | 30        | 70        | 0.335         | 0.349 | 2.98  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.58 | 24.20  | 25          | **        |           | 1.279         | 1.238 | 3.22  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.69 | 49.51  | 50          | 35        | 65        | 1.076         | 1.065 | 0.98  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 7.96 | 51.37  | 50          | 30        | 70        | 0.902         | 0.927 | 2.74  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 7.96 | 51.37  |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits\*\* - No limit specified in method  
Page 1 of 3Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/25/2018 9:19:00Data File: 5M105967.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                  | Col# | Multi<br>Num | Type | RT    | Conc  | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|----------------------------|------|--------------|------|-------|-------|-------------|-----------|-----------|---------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0            |      | 7.75  | 52.68 | 50          | 30        | 70        | 0.798         | 0.841 | 5.36  |      |
| 2-Nitroaniline             | 1    | 0            |      | 7.77  | 48.12 | 50          | 30        | 70        | 0.407         | 0.417 | 3.75  |      |
| Coumarin                   | 1    | 0            |      | 7.95  | 52.76 | 50          | 30        | 70        | 0.414         | 0.437 | 5.51  |      |
| Acenaphthylene             | 1    | 0            |      | 8.04  | 50.51 | 50          | 30        | 65        | 1.618         | 1.634 | 1.03  |      |
| Dimethylphthalate          | 1    | 0            |      | 7.91  | 50.05 | 50          | 25        | 65        | 1.205         | 1.206 | 0.10  |      |
| 2,6-Dinitrotoluene         | 1    | 0            |      | 7.97  | 49.24 | 50          | 34        | 68.5      | 0.264         | 0.274 | 1.51  |      |
| Acenaphthene               | 1    | 0            |      | 8.19  | 51.00 | 50          | 35        | 65        | 1.114         | 1.136 | 2.01  |      |
| 3-Nitroaniline             | 1    | 0            |      | 8.13  | 50.70 | 50          | 30        | 70        | 0.272         | 0.312 | 1.40  |      |
| 2,4-Dinitrophenol          | 1    | 0            |      | 8.22  | 37.57 | 50          | 19.5      | 86.5      | 0.121         | 0.082 | 24.85 |      |
| Dibenzofuran               | 1    | 0            |      | 8.35  | 48.77 | 50          | 30        | 70        | 1.562         | 1.571 | 2.47  |      |
| 2,4-Dinitrotoluene         | 1    | 0            |      | 8.33  | 48.70 | 50          | 26.5      | 65        | 0.345         | 0.360 | 2.60  |      |
| 4-Nitrophenol              | 1    | 0            |      | 8.25  | 46.07 | 50          | 12.5      | 65        | 0.215         | 0.201 | 7.85  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0            |      | 8.46  | 49.65 | 50          | 30        | 70        | 0.270         | 0.297 | 0.71  |      |
| Fluorene                   | 1    | 0            |      | 8.66  | 51.60 | 50          | 35        | 65        | 1.229         | 1.269 | 3.20  |      |
| 4-Chlorophenyl-phenylether | 1    | 0            |      | 8.65  | 51.28 | 50          | 28.5      | 72.5      | 0.557         | 0.572 | 2.55  |      |
| Diethylphthalate           | 1    | 0            |      | 8.54  | 50.25 | 50          | 23.5      | 65        | 1.193         | 1.199 | 0.51  |      |
| 4-Nitroaniline             | 1    | 0            |      | 8.69  | 48.76 | 50          | 30        | 70        | 0.314         | 0.336 | 2.48  |      |
| Atrazine                   | 1    | 0            |      | 9.29  | 49.77 | 50          | 5         | 70        | 0.338         | 0.339 | 0.46  |      |
| Phenanthrene-d10           | 1    | 0            | I    | 9.62  | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0            |      | 8.71  | 45.80 | 50          | 28        | 65        | 0.101         | 0.085 | 8.40  |      |
| n-Nitrosodiphenylamine     | 1    | 0            |      | 8.77  | 51.12 | 50          | 30        | 70        | 0.625         | 0.639 | 2.25  |      |
| 2,4,6-Tribromophenol       | 1    | 0            | S    | 8.90  | 51.69 | 50          | **        |           | 0.069         | 0.076 | 3.37  |      |
| 1,2-Diphenylhydrazine      | 1    | 0            |      | 8.81  | 50.43 | 50          | 30        | 70        | 0.891         | 0.899 | 0.87  |      |
| 4-Bromophenyl-phenylether  | 1    | 0            |      | 9.14  | 51.03 | 50          | 35        | 65        | 0.188         | 0.192 | 2.06  |      |
| Hexachlorobenzene          | 1    | 0            |      | 9.21  | 51.30 | 50          | 19        | 71        | 0.181         | 0.185 | 2.61  |      |
| N-Octadecane               | 1    | 0            |      | 9.47  | 48.31 | 50          | 30        | 70        | 0.493         | 0.516 | 3.39  |      |
| Pentachlorophenol          | 1    | 0            |      | 9.41  | 50.54 | 50          | 21        | 76        | 0.087         | 0.081 | 1.09  |      |
| Phenanthrene               | 1    | 0            |      | 9.64  | 50.06 | 50          | 33.5      | 65        | 1.085         | 1.086 | 0.11  |      |
| Anthracene                 | 1    | 0            |      | 9.70  | 51.03 | 50          | 29        | 65        | 1.089         | 1.111 | 2.06  |      |
| Carbazole                  | 1    | 0            |      | 9.87  | 50.50 | 50          | 30        | 70        | 1.010         | 1.020 | 1.00  |      |
| Di-n-butylphthalate        | 1    | 0            |      | 10.24 | 46.39 | 50          | 26        | 65        | 1.063         | 1.164 | 7.22  |      |
| Fluoranthene               | 1    | 0            |      | 10.97 | 50.44 | 50          | 23.5      | 65        | 1.087         | 1.134 | 0.87  |      |
| Chrysene-d12               | 1    | 0            | I    | 12.67 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0            |      | 11.23 | 51.41 | 50          | 35        | 65        | 1.141         | 1.173 | 2.81  |      |
| Benzidine                  | 1    | 0            |      | 11.13 | 37.91 | 50          | 2.5       | 75        | 0.357         | 0.309 | 24.17 |      |
| Terphenyl-d14              | 1    | 0            | S    | 11.41 | 25.98 | 25          | **        |           | 0.640         | 0.665 | 3.91  |      |
| 4,4'-DDE                   | 1    | 0            |      | 11.35 | 52.31 |             | **        |           | 0.231         |       |       |      |
| 4,4'-DDD                   | 1    | 0            |      | 11.75 | 54.46 |             | **        |           | 0.370         |       |       |      |
| Butylbenzylphthalate       | 1    | 0            |      | 12.00 | 50.47 | 50          | 21.5      | 70        | 0.470         | 0.502 | 0.94  |      |
| 4,4'-DDT                   | 1    | 0            |      | 12.10 | 52.46 |             | **        |           | 0.330         |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0            |      | 12.63 | 50.29 | 50          | 9         | 107       | 0.271         | 0.322 | 0.59  |      |
| Benzo[a]anthracene         | 1    | 0            |      | 12.66 | 49.52 | 50          | 21        | 66.5      | 1.082         | 1.071 | 0.96  |      |
| Chrysene                   | 1    | 0            |      | 12.70 | 51.22 | 50          | 22        | 70        | 1.036         | 1.061 | 2.44  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0            |      | 12.69 | 45.64 | 50          | 21.5      | 68.5      | 0.664         | 0.705 | 8.71  |      |
| Perylene-d12               | 1    | 0            | I    | 14.28 | 40.00 | 40          | **        |           |               | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0            |      | 13.44 | 46.85 | 50          | 10.5      | 66        | 1.269         | 1.289 | 6.30  |      |
| Benzo[b]fluoranthene       | 1    | 0            |      | 13.87 | 51.22 | 50          | 21        | 70        | 1.126         | 1.153 | 2.44  |      |
| Benzo[k]fluoranthene       | 1    | 0            |      | 13.90 | 51.80 | 50          | 12.5      | 73        | 1.133         | 1.174 | 3.59  |      |
| Benzo[a]pyrene             | 1    | 0            |      | 14.22 | 52.43 | 50          | 16        | 74        | 1.085         | 1.133 | 4.85  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0            |      | 15.56 | 51.88 | 50          | 6.5       | 75.5      | 1.189         | 1.218 | 3.76  |      |
| Dibenzo[a,h]anthracene     | 1    | 0            |      | 15.57 | 50.48 | 50          | 6.5       | 100       | 1.011         | 1.033 | 0.96  |      |
| Benzo[g,h,i]perylene       | 1    | 0            |      | 15.92 | 50.44 | 50          | 6.5       | 97.5      | 1.012         | 1.004 | 0.88  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limits\*\* - No limit specified in method  
Page 2 of 3Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0500

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/25/2018 9:19:00

Data File: 5M105967.D  
 Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.678         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.902         | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 CI-Compound %Diff exceeds limits

Page 3 of 3  
 \*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 5M105967.D  
Acq On : 10/25/18 09:19

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/25/18 09:34  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-25-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.510  | 96   | 57222      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 103123     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 376807     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 216505     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.616  | 188  | 361026     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 363834     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 295643     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 146046     | 49.16    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 49.16%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 221569     | 48.37    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.37%   |       |          |
| 32) Nitrobenzene-d5            | 6.197  | 128  | 28452      | 25.59    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 51.18%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 167549     | 24.20    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.40%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 34458      | 51.69    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 51.69%   |       |          |
| 94) Terphenyl-d14              | 11.411 | 244  | 151183     | 25.98    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 51.96%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.548  | 88   | 76810m     | 52.7705  | ng    | Qvalue   |
| 9) Pyridine                    | 3.013  | 79   | 184022     | 50.8371  | ng    | 72       |
| 10) N-Nitrosodimethylamine     | 2.948  | 74   | 104929     | 50.9120  | ng    | 80       |
| 12) Benzaldehyde               | 5.374  | 77   | 64726      | 37.3706  | ng    | 80       |
| 13) Aniline                    | 5.465  | 93   | 208218     | 43.0145  | ng    | 63       |
| 14) Pentachloroethane          | 5.497  | 117  | 54064      | 47.3350  | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 169943     | 47.3624  | ng    | 86       |
| 17) Phenol                     | 5.443  | 94   | 246299     | 51.7194  | ng    | 83       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 167737     | 49.0636  | ng    | 83       |
| 19) N-Decane                   | 5.598  | 57   | 190543     | 48.5450  | ng    | 85       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 186828     | 48.6800  | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 191056     | 49.5864  | ng    | 99       |
| 23) 1,2-Dichlorobenzene        | 5.876  | 146  | 179978     | 50.2424  | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 105692     | 50.0754  | ng    | 74       |
| 25) bis(2-chloroisopropyl) ... | 5.967  | 45   | 244649     | 50.3105  | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 155760     | 50.3002  | ng    | 97       |
| 27) Acetophenone               | 6.074  | 105  | 231619     | 51.3165  | ng    | 79       |
| 28) Hexachloroethane           | 6.148  | 117  | 70949      | 49.5588  | ng    | 83       |
| 29) N-Nitroso-di-n-propyla...  | 6.074  | 70   | 115449     | 46.7242  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.074  | 108  | 160540     | 47.1238  | ng    | 97       |
| 33) Nitrobenzene               | 6.213  | 77   | 175866     | 50.6051  | ng    | 81       |
| 34) Isophorone                 | 6.394  | 82   | 308273     | 51.2436  | ng    | 90       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 80914      | 48.6314  | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 163342     | 47.8988  | ng    | 94       |
| 37) Benzoic Acid               | 6.570  | 105  | 33367      | 18.9929  | ng    | 86       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 197361     | 50.4127  | ng    | 98       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 134580     | 50.2914  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 141603     | 48.2937  | ng    | 97       |
| 41) Naphthalene                | 6.763  | 128  | 505505     | 50.1683  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.806  | 127  | 180902     | 50.3752  | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 78254      | 49.8337  | ng    | 95       |
| 44) Caprolactam                | 7.083  | 113  | 48107      | 47.0070  | ng    | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 134503     | 50.1386  | ng    | 81       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 326731     | 50.4510  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 326263     | 51.2163  | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 647987m    | 101.5097 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.666  | 154  | 380380     | 50.0624  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 152165     | 50.7128  | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.415  | 237  | 47077      | 45.0149  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 84353      | 47.9644  | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 94550      | 51.4903  | ng    | 97       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 288331     | 49.5120  | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 250906     | 51.3706  | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 250906     | 51.3706  | ng    | 90       |
| 59) Diphenyl Ether             | 7.746  | 170  | 227616     | 52.6808  | ng    | 84       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 112783     | 48.1230  | ng    | 58       |
| 61) Coumarin                   | 7.954  | 146  | 118215     | 52.7553  | ng    | 72       |
| 62) Acenaphthylene             | 8.045  | 152  | 442273     | 50.5147  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 326482     | 50.0486  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 74048      | 49.2445  | ng    | 70       |
| 65) Acenaphthene               | 8.194  | 153  | 307395     | 51.0027  | ng    | 95       |



## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 5M105967.D  
 Acq On : 10/25/18 09:19

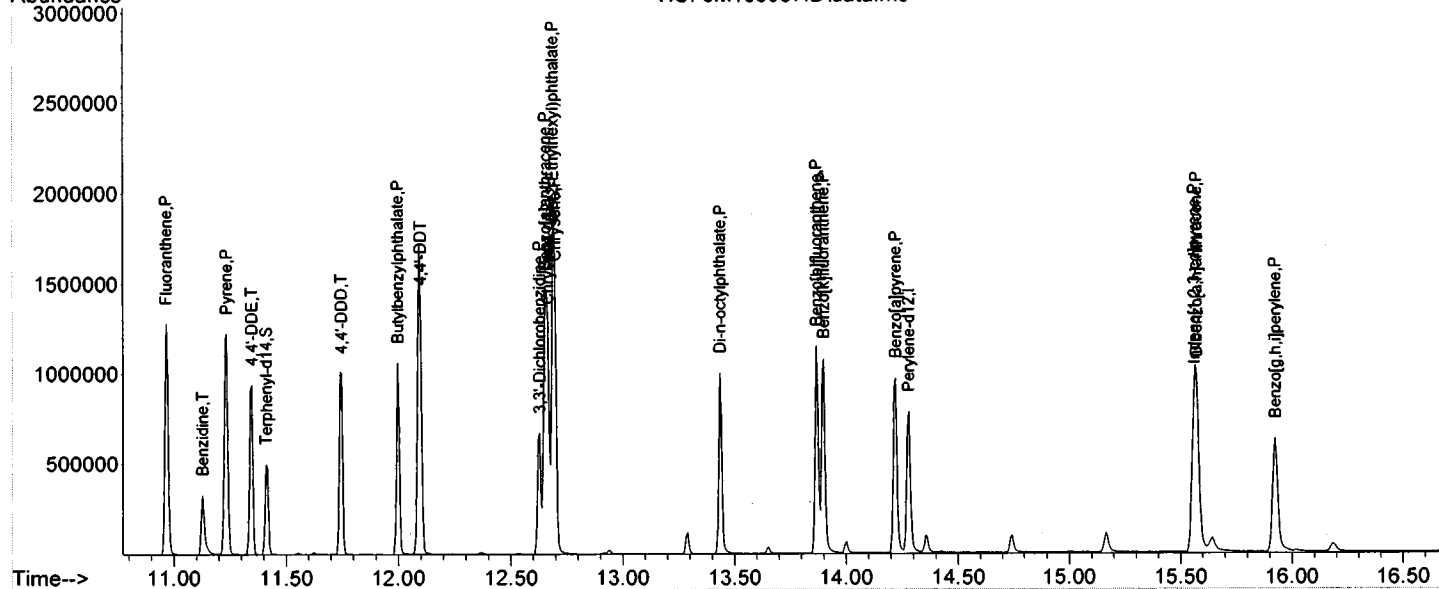
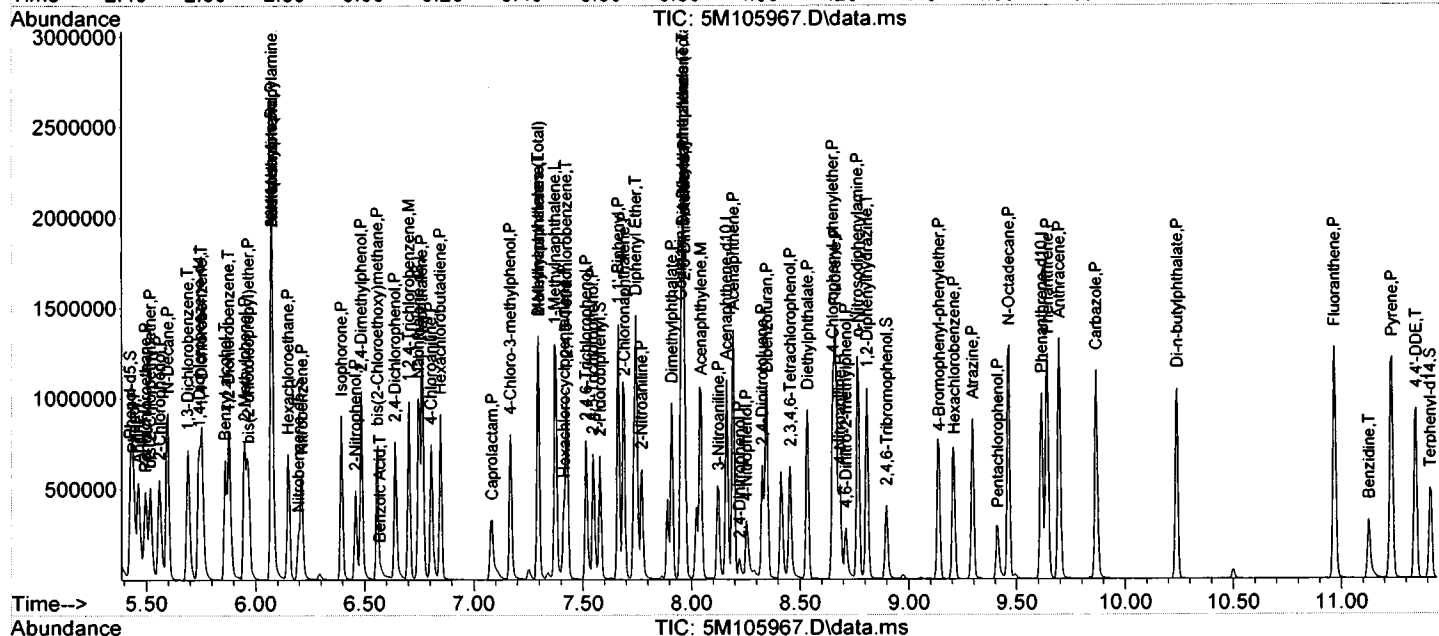
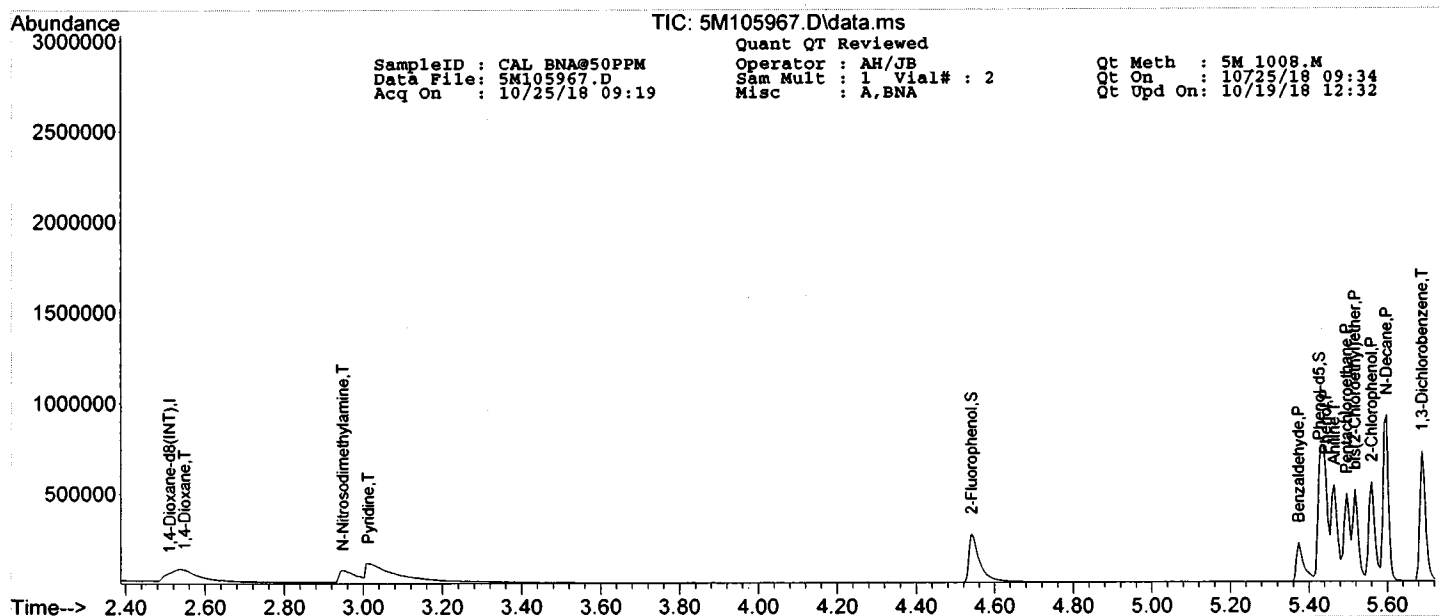
Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/25/18 09:34  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-25-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.125  | 138  | 84413    | 50.6998 | ng    | 71       |
| 67)  | 2,4-Dinitrophenol         | 8.221  | 184  | 22174    | 37.5730 | ng    | 44       |
| 68)  | Dibenzofuran              | 8.349  | 168  | 425030   | 48.7658 | ng    | 86       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 97460    | 48.7008 | ng    | 71       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 54302    | 46.0739 | ng    | 90       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 80451    | 49.6457 | ng    | 79       |
| 72)  | Fluorene                  | 8.665  | 166  | 343329   | 51.6010 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 154719   | 51.2768 | ng    | 86       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 324433   | 50.2529 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.686  | 138  | 90943    | 48.7615 | ng    | 80       |
| 76)  | Atrazine                  | 9.295  | 200  | 91699    | 49.7723 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.713  | 198  | 38550    | 45.7976 | ng    | 55       |
| 79)  | n-Nitrosodiphenylamine    | 8.766  | 169  | 288278   | 51.1242 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 405567   | 50.4341 | ng    | 89       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 86648    | 51.0323 | ng    | 83       |
| 83)  | Hexachlorobenzene         | 9.210  | 284  | 83670    | 51.3048 | ng    | 71       |
| 84)  | N-Octadecane              | 9.466  | 57   | 232671   | 48.3063 | ng    | 83       |
| 85)  | Pentachlorophenol         | 9.413  | 266  | 36597    | 50.5439 | ng    | 96       |
| 86)  | Phenanthrene              | 9.642  | 178  | 490147   | 50.0566 | ng    | 99       |
| 87)  | Anthracene                | 9.696  | 178  | 501329   | 51.0287 | ng    | 99       |
| 88)  | Carbazole                 | 9.867  | 167  | 460212   | 50.4975 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.241 | 149  | 525403   | 46.3902 | ng    | 98       |
| 90)  | Fluoranthene              | 10.967 | 202  | 511919   | 50.4364 | ng    | 94       |
| 92)  | Pyrene                    | 11.234 | 202  | 533280   | 51.4059 | ng    | 89       |
| 93)  | Benzidine                 | 11.127 | 184  | 140646   | 37.9142 | ng    | 89       |
| 95)  | 4,4'-DDE                  | 11.346 | 246  | 109829   | 52.3137 | ng    | 92       |
| 96)  | 4,4'-DDD                  | 11.747 | 235  | 183204   | 54.4579 | ng    | 91       |
| 97)  | Butylbenzylphthalate      | 11.998 | 149  | 228173   | 50.4680 | ng    | 80       |
| 98)  | 4,4'-DDT                  | 12.100 | 235  | 157569   | 52.4557 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.629 | 252  | 146372   | 50.2930 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.655 | 228  | 487168   | 49.5179 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 482581   | 51.2191 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 320434   | 45.6445 | ng    | 98       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 476302   | 46.8509 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.868 | 252  | 426270   | 51.2191 | ng    | 96       |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 433757m  | 51.7971 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.221 | 252  | 418681   | 52.4252 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 449987   | 51.8794 | ng    | 96       |
| 109) | Dibenzo[a,h]anthracene    | 15.572 | 278  | 381706   | 50.4777 | ng    | 93       |
| 110) | Benzo[g,h,i]perylene      | 15.925 | 276  | 370884   | 50.4375 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form7

8101509 0504

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/26/2018 8:35:00

Data File: 5M105989.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                   | Col# | Multi<br>Num | Type | RT   | Conc   | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff | Flag |
|-----------------------------|------|--------------|------|------|--------|-------------|-----------|-----------|---------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0            | I    | 2.52 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0            |      | 2.55 | 52.04  | 50          | 5         | 70        | 0.979         | 1.059 | 4.08  |      |
| Pyridine                    | 1    | 0            |      | 3.03 | 49.08  | 50          | 2.5       | 75        | 2.530         | 2.484 | 1.84  |      |
| N-Nitrosodimethylamine      | 1    | 0            |      | 2.95 | 49.89  | 50          | 15        | 70        | 1.441         | 1.437 | 0.22  |      |
| 2-Fluorophenol              | 1    | 0            | S    | 4.55 | 48.56  | 50          | **        |           | 2.077         | 2.017 | 2.89  |      |
| Benzaldehyde                | 1    | 0            |      | 5.37 | 37.45  | 50          | 2.5       | 115       | 1.211         | 0.907 | 25.10 |      |
| Aniline                     | 1    | 0            |      | 5.46 | 43.72  | 50          | 5         | 70        | 2.890         | 2.960 | 12.56 |      |
| Pentachloroethane           | 1    | 0            |      | 5.50 | 47.39  | 50          | 30        | 70        | 0.798         | 0.757 | 5.22  |      |
| bis(2-Chloroethyl)ether     | 1    | 0            |      | 5.52 | 47.40  | 50          | 26        | 65        | 2.508         | 2.378 | 5.21  |      |
| Phenol-d5                   | 1    | 0            | S    | 5.43 | 48.15  | 50          | **        |           | 3.202         | 3.084 | 3.70  |      |
| Phenol                      | 1    | 0            |      | 5.44 | 51.80  | 50          | 24        | 65        | 3.388         | 3.449 | 3.59  |      |
| 2-Chlorophenol              | 1    | 0            |      | 5.56 | 47.71  | 50          | 27.5      | 65        | 2.390         | 2.280 | 4.58  |      |
| N-Decane                    | 1    | 0            |      | 5.60 | 48.06  | 50          | 30        | 70        | 2.744         | 2.638 | 3.87  |      |
| 1,3-Dichlorobenzene         | 1    | 0            |      | 5.75 | 48.78  | 50          | 30        | 70        | 2.683         | 2.617 | 2.44  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0            | I    | 5.74 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0            |      | 5.75 | 49.97  | 50          | 30        | 70        | 1.495         | 1.494 | 0.06  |      |
| 1,2-Dichlorobenzene         | 1    | 0            |      | 5.88 | 51.57  | 50          | 30        | 70        | 1.389         | 1.433 | 3.13  |      |
| Benzyl alcohol              | 1    | 0            |      | 5.86 | 52.01  | 50          | 30        | 70        | 0.819         | 0.852 | 4.02  |      |
| bis(2-chloroisopropyl)ether | 1    | 0            |      | 5.97 | 51.90  | 50          | 31.5      | 69.5      | 1.886         | 1.958 | 3.81  |      |
| 2-Methylphenol              | 1    | 0            |      | 5.95 | 51.05  | 50          | 30        | 70        | 1.201         | 1.226 | 2.10  |      |
| Acetophenone                | 1    | 0            |      | 6.07 | 52.28  | 50          | 30        | 70        | 1.751         | 1.830 | 4.55  |      |
| Hexachloroethane            | 1    | 0            |      | 6.15 | 50.66  | 50          | 27.5      | 65        | 0.555         | 0.563 | 1.32  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0            |      | 6.07 | 47.80  | 50          | 29.5      | 85        | 0.846         | 0.915 | 4.40  |      |
| 3&4-Methylphenol            | 1    | 0            |      | 6.07 | 47.03  | 50          | 30        | 70        | 1.137         | 1.243 | 5.93  |      |
| Naphthalene-d8              | 1    | 0            | I    | 6.75 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0            | S    | 6.20 | 26.09  | 25          | **        |           | 0.118         | 0.123 | 4.35  |      |
| Nitrobenzene                | 1    | 0            |      | 6.21 | 51.38  | 50          | 27        | 79        | 0.369         | 0.379 | 2.75  |      |
| Isophorone                  | 1    | 0            |      | 6.39 | 51.06  | 50          | 26        | 90        | 0.639         | 0.652 | 2.13  |      |
| 2-Nitrophenol               | 1    | 0            |      | 6.46 | 51.58  | 50          | 30.5      | 81.5      | 0.172         | 0.183 | 3.15  |      |
| 2,4-Dimethylphenol          | 1    | 0            |      | 6.48 | 49.36  | 50          | 29        | 65        | 0.338         | 0.358 | 1.29  |      |
| Benzoic Acid                | 1    | 0            |      | 6.58 | 37.11  | 50          | 5         | 70        | 0.250         | 0.156 | 25.78 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0            |      | 6.56 | 50.77  | 50          | 26        | 82        | 0.416         | 0.422 | 1.54  |      |
| 2,4-Dichlorophenol          | 1    | 0            |      | 6.64 | 51.54  | 50          | 27        | 65        | 0.260         | 0.293 | 3.07  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0            |      | 6.70 | 50.03  | 50          | 25.5      | 65        | 0.311         | 0.311 | 0.06  |      |
| Naphthalene                 | 1    | 0            |      | 6.76 | 50.60  | 50          | 35        | 65        | 1.070         | 1.083 | 1.21  |      |
| 4-Chloroaniline             | 1    | 0            |      | 6.81 | 51.08  | 50          | 15        | 115       | 0.321         | 0.389 | 2.16  |      |
| Hexachlorobutadiene         | 1    | 0            |      | 6.85 | 51.40  | 50          | 34        | 65        | 0.167         | 0.171 | 2.80  |      |
| Caprolactam                 | 1    | 0            |      | 7.08 | 48.94  | 50          | 30        | 70        | 0.100         | 0.107 | 2.12  |      |
| 4-Chloro-3-methylphenol     | 1    | 0            |      | 7.17 | 50.46  | 50          | 34        | 65        | 0.282         | 0.287 | 0.92  |      |
| 2-Methylnaphthalene         | 1    | 0            |      | 7.30 | 50.52  | 50          | 30        | 70        | 0.687         | 0.695 | 1.04  |      |
| 1-Methylnaphthalene         | 1    | 0            |      | 7.37 | 50.72  | 50          | 30        | 70        | 0.676         | 0.686 | 1.44  |      |
| Methylnaphthalenes          | 1    | 0            |      | 7.30 | 101.05 | 100         | **        |           |               | 0.685 | 1.05  |      |
| 1,1'-Biphenyl               | 1    | 0            |      | 7.67 | 51.26  | 50          | 30        | 70        | 0.807         | 0.827 | 2.52  |      |
| Acenaphthene-d10            | 1    | 0            | I    | 8.16 | 40.00  | 40          | **        |           |               | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0            |      | 7.43 | 49.94  | 50          | 30        | 70        | 0.554         | 0.554 | 0.13  |      |
| Hexachlorocyclopentadiene   | 1    | 0            |      | 7.41 | 44.11  | 50          | 5         | 70        | 0.189         | 0.170 | 11.78 |      |
| 2,4,6-Trichlorophenol       | 1    | 0            |      | 7.52 | 48.76  | 50          | 34.5      | 65        | 0.304         | 0.317 | 2.49  |      |
| 2,4,5-Trichlorophenol       | 1    | 0            |      | 7.55 | 51.23  | 50          | 30        | 70        | 0.335         | 0.347 | 2.45  |      |
| 2-Fluorobiphenyl            | 1    | 0            | S    | 7.58 | 25.01  | 25          | **        |           | 1.279         | 1.280 | 0.06  |      |
| 2-Chloronaphthalene         | 1    | 0            |      | 7.69 | 50.41  | 50          | 35        | 65        | 1.076         | 1.085 | 0.82  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0            |      | 7.96 | 52.19  | 50          | 30        | 70        | 0.902         | 0.942 | 4.38  |      |
| Dimethylnaphthalenes        | 1    | 0            |      | 7.96 | 52.19  |             | **        |           |               |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 1 of 3  
\*\*- No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

# Form7

Continuing Calibration

8101509 0505

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/26/2018 8:35:00

Data File: 5M105989.D  
Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.75  | 51.85 | 50       | 30     | 70     | 0.798      | 0.828 | 3.70  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.77  | 48.50 | 50       | 30     | 70     | 0.407      | 0.420 | 3.01  |      |
| Coumarin                   | 1    | 0         |      | 7.95  | 53.50 | 50       | 30     | 70     | 0.414      | 0.443 | 7.01  |      |
| Acenaphthylene             | 1    | 0         |      | 8.04  | 50.72 | 50       | 30     | 65     | 1.618      | 1.641 | 1.43  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.91  | 49.95 | 50       | 25     | 65     | 1.205      | 1.204 | 0.10  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 7.97  | 50.63 | 50       | 34     | 68.5   | 0.264      | 0.281 | 1.26  |      |
| Acenaphthene               | 1    | 0         |      | 8.19  | 49.98 | 50       | 35     | 65     | 1.114      | 1.113 | 0.04  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.12  | 51.26 | 50       | 30     | 70     | 0.272      | 0.315 | 2.53  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.22  | 43.78 | 50       | 19.5   | 86.5   | 0.121      | 0.098 | 12.45 |      |
| Dibenzofuran               | 1    | 0         |      | 8.34  | 48.19 | 50       | 30     | 70     | 1.562      | 1.552 | 3.63  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.33  | 48.93 | 50       | 26.5   | 65     | 0.345      | 0.362 | 2.14  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.25  | 46.27 | 50       | 12.5   | 65     | 0.215      | 0.202 | 7.45  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.46  | 48.86 | 50       | 30     | 70     | 0.270      | 0.292 | 2.29  |      |
| Fluorene                   | 1    | 0         |      | 8.66  | 49.98 | 50       | 35     | 65     | 1.229      | 1.229 | 0.04  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.65  | 50.30 | 50       | 28.5   | 72.5   | 0.557      | 0.561 | 0.59  |      |
| Diethylphthalate           | 1    | 0         |      | 8.54  | 49.67 | 50       | 23.5   | 65     | 1.193      | 1.185 | 0.66  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.69  | 48.51 | 50       | 30     | 70     | 0.314      | 0.334 | 2.99  |      |
| Atrazine                   | 1    | 0         |      | 9.29  | 48.53 | 50       | 5      | 70     | 0.338      | 0.330 | 2.94  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.62  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.71  | 52.22 | 50       | 28     | 65     | 0.101      | 0.100 | 4.45  |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.77  | 51.57 | 50       | 30     | 70     | 0.625      | 0.644 | 3.13  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.90  | 51.67 | 50       | **     |        | 0.069      | 0.076 | 3.34  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.81  | 45.78 | 50       | 30     | 70     | 0.891      | 0.816 | 8.44  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.13  | 50.04 | 50       | 35     | 65     | 0.188      | 0.188 | 0.08  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.20  | 50.97 | 50       | 19     | 71     | 0.181      | 0.184 | 1.94  |      |
| N-Octadecane               | 1    | 0         |      | 9.46  | 47.96 | 50       | 30     | 70     | 0.493      | 0.512 | 4.09  |      |
| Pentachlorophenol          | 1    | 0         |      | 9.41  | 53.36 | 50       | 21     | 76     | 0.087      | 0.086 | 6.71  |      |
| Phenanthrene               | 1    | 0         |      | 9.64  | 49.61 | 50       | 33.5   | 65     | 1.085      | 1.076 | 0.78  |      |
| Anthracene                 | 1    | 0         |      | 9.70  | 50.59 | 50       | 29     | 65     | 1.089      | 1.101 | 1.17  |      |
| Carbazole                  | 1    | 0         |      | 9.87  | 49.93 | 50       | 30     | 70     | 1.010      | 1.008 | 0.13  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.24 | 47.12 | 50       | 26     | 65     | 1.063      | 1.183 | 5.76  |      |
| Fluoranthene               | 1    | 0         |      | 10.97 | 51.68 | 50       | 23.5   | 65     | 1.087      | 1.164 | 3.36  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.67 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.23 | 50.98 | 50       | 35     | 65     | 1.141      | 1.163 | 1.95  |      |
| Benidine                   | 1    | 0         |      | 11.13 | 41.42 | 50       | 2.5    | 75     | 0.357      | 0.338 | 17.15 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.41 | 25.27 | 25       | **     |        | 0.640      | 0.647 | 1.06  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.34 | 50.39 |          | **     |        | 0.231      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.74 | 52.46 |          | **     |        | 0.370      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 12.00 | 49.62 | 50       | 21.5   | 70     | 0.470      | 0.493 | 0.75  |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.10 | 52.47 |          | **     |        | 0.330      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.62 | 51.63 | 50       | 9      | 107    | 0.271      | 0.330 | 3.26  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.65 | 51.17 | 50       | 21     | 66.5   | 1.082      | 1.107 | 2.35  |      |
| Chrysene                   | 1    | 0         |      | 12.70 | 50.21 | 50       | 22     | 70     | 1.036      | 1.040 | 0.41  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.69 | 46.75 | 50       | 21.5   | 68.5   | 0.664      | 0.722 | 6.50  |      |
| Perylene-d12               | 1    | 0         | I    | 14.28 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.44 | 47.89 | 50       | 10.5   | 66     | 1.269      | 1.320 | 4.23  |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.87 | 51.67 | 50       | 21     | 70     | 1.126      | 1.164 | 3.34  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.90 | 50.68 | 50       | 12.5   | 73     | 1.133      | 1.149 | 1.37  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.22 | 51.26 | 50       | 16     | 74     | 1.085      | 1.105 | 2.52  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.56 | 51.34 | 50       | 6.5    | 75.5   | 1.189      | 1.204 | 2.68  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.57 | 49.78 | 50       | 6.5    | 100    | 1.011      | 1.018 | 0.44  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 15.92 | 50.37 | 50       | 6.5    | 97.5   | 1.012      | 1.002 | 0.74  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

Page 2 of 3  
\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0506

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/26/2018 8:35:00

Data File: 5M105989.D  
 Method: EPA 625.1

Instrument: GCMS 5

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.678         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.902         | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 CI-Compound %Diff exceeds limits

Page 3 of 3  
 \*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 5M105989.D  
Acq On : 10/26/18 08:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/26/18 08:50  
Qt Upd On: 10/25/18 12:46

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-26-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.521  | 96   | 58050      | 40.00    | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 101726     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 371947     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 216928     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 357326     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 367827     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 305241     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.546  | 112  | 146330     | 48.56    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.56%   |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 223771     | 48.15    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.15%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 28633      | 26.09    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 52.18%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 173556     | 25.01    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.02%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 34095      | 51.67    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 51.67%   |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 148653     | 25.27    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.54%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.553  | 88   | 76823m     | 52.0396  | ng    | Qvalue   |
| 9) Pyridine                    | 3.028  | 79   | 180239     | 49.0819  | ng    | 74       |
| 10) N-Nitrosodimethylamine     | 2.954  | 74   | 104306     | 49.8878  | ng    | 81       |
| 12) Benzaldehyde               | 5.374  | 77   | 65798      | 37.4477  | ng    | 75       |
| 13) Aniline                    | 5.464  | 93   | 214763     | 43.7209  | ng    | 63       |
| 14) Pentachloroethane          | 5.497  | 117  | 54911      | 47.3908  | ng    | 77       |
| 15) bis(2-Chloroethyl)ether    | 5.518  | 93   | 172528     | 47.3970  | ng    | 83       |
| 17) Phenol                     | 5.443  | 94   | 250246     | 51.7956  | ng    | 84       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 165461     | 47.7076  | ng    | 82       |
| 19) N-Decane                   | 5.598  | 57   | 191388     | 48.0648  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.753  | 146  | 189927     | 48.7816  | ng    | 95       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 189927     | 49.9703  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 182218     | 51.5663  | ng    | 96       |
| 24) Benzyl alcohol             | 5.860  | 108  | 108292     | 52.0119  | ng    | 74       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 248978     | 51.9039  | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 155939     | 51.0495  | ng    | 97       |
| 27) Acetophenone               | 6.073  | 105  | 232756     | 52.2766  | ng    | 80       |
| 28) Hexachloroethane           | 6.148  | 117  | 71541      | 50.6586  | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 116402     | 47.8007  | ng    | 77       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 158078     | 47.0337  | ng    | 98       |
| 33) Nitrobenzene               | 6.212  | 77   | 176239     | 51.3750  | ng    | 80       |
| 34) Isophorone                 | 6.394  | 82   | 303222     | 51.0626  | ng    | 88       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 85043      | 51.5770  | ng    | 90       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 166256     | 49.3559  | ng    | 96       |
| 37) Benzoic Acid               | 6.581  | 105  | 72301      | 37.1096  | ng    | 88       |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 196204     | 50.7720  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 136258     | 51.5365  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 144802     | 50.0300  | ng    | 98       |
| 41) Naphthalene                | 6.763  | 128  | 503307     | 50.6029  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 180905     | 51.0816  | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 79675      | 51.4016  | ng    | 95       |
| 44) Caprolactam                | 7.083  | 113  | 49557      | 48.9387  | ng    | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 133668     | 50.4621  | ng    | 77       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 322961     | 50.5205  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 318933     | 50.7198  | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 636733m    | 101.0500 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 384469     | 51.2618  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 150127     | 49.9360  | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 46090      | 44.1125  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 85964      | 48.7556  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 94219      | 51.2268  | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 294136     | 50.4103  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 255411     | 52.1910  | ng    | 87       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 255411     | 52.1910  | ng    | 87       |
| 59) Diphenyl Ether             | 7.746  | 170  | 224463     | 51.8498  | ng    | 81       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 113898     | 48.4957  | ng    | 53       |
| 61) Coumarin                   | 7.954  | 146  | 120127     | 53.5040  | ng    | 73       |
| 62) Acenaphthylene             | 8.039  | 152  | 444897     | 50.7153  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 326490     | 49.9522  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 76304      | 50.6295  | ng    | 65       |
| 65) Acenaphthene               | 8.194  | 153  | 301814     | 49.9790  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM  
 Data File: 5M105989.D  
 Acq On : 10/26/18 08:35

Operator : AH/JB  
 Sam Mult : 1 Vial# : 2  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/26/18 08:50  
 Qt Upd On: 10/25/18 12:46

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-26-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.120  | 138  | 85492    | 51.2633 | ng    | 77       |
| 67)  | 2,4-Dinitrophenol         | 8.221  | 184  | 26547    | 43.7774 | ng    | 38       |
| 68)  | Dibenzofuran              | 8.344  | 168  | 420806   | 48.1875 | ng    | 87       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 98123    | 48.9279 | ng    | 67       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 54667    | 46.2728 | ng    | 86       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 79289    | 48.8574 | ng    | 81       |
| 72)  | Fluorene                  | 8.664  | 166  | 333191   | 49.9796 | ng    | 100      |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 152056   | 50.2960 | ng    | 85       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 321305   | 49.6713 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.686  | 138  | 90625    | 48.5073 | ng    | 77       |
| 76)  | Atrazine                  | 9.295  | 200  | 89433    | 48.5290 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.713  | 198  | 44456    | 52.2233 | ng    | 62       |
| 79)  | n-Nitrosodiphenylamine    | 8.766  | 169  | 287793   | 51.5666 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 364358   | 45.7788 | ng    | 88       |
| 82)  | 4-Bromophenyl-phenylether | 9.135  | 248  | 84091    | 50.0391 | ng    | 88       |
| 83)  | Hexachlorobenzene         | 9.204  | 284  | 82270    | 50.9687 | ng    | 78       |
| 84)  | N-Octadecane              | 9.460  | 57   | 228611   | 47.9569 | ng    | 87       |
| 85)  | Pentachlorophenol         | 9.407  | 266  | 38628    | 53.3563 | ng    | 99       |
| 86)  | Phenanthrene              | 9.642  | 178  | 480784   | 49.6088 | ng    | 99       |
| 87)  | Anthracene                | 9.695  | 178  | 491891   | 50.5865 | ng    | 99       |
| 88)  | Carbazole                 | 9.866  | 167  | 450419   | 49.9347 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.235 | 149  | 528402   | 47.1175 | ng    | 98       |
| 90)  | Fluoranthene              | 10.967 | 202  | 519716   | 51.6789 | ng    | 93       |
| 92)  | Pyrene                    | 11.229 | 202  | 534622   | 50.9758 | ng    | 92       |
| 93)  | Benzidine                 | 11.127 | 184  | 155520   | 41.4235 | ng    | 86       |
| 95)  | 4,4'-DDE                  | 11.341 | 246  | 106961   | 50.3945 | ng    | 93       |
| 96)  | 4,4'-DDD                  | 11.742 | 235  | 178404   | 52.4554 | ng    | 91       |
| 97)  | Butylbenzylphthalate      | 11.998 | 149  | 226519   | 49.6248 | ng    | 76       |
| 98)  | 4,4'-DDT                  | 12.100 | 235  | 159345   | 52.4711 | ng    | 93       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.623 | 252  | 151829   | 51.6297 | ng    | 98       |
| 100) | Benzo[a]anthracene        | 12.650 | 228  | 508974   | 51.1728 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 478228   | 50.2061 | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 331900   | 46.7477 | ng    | 98       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 503791   | 47.8869 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 13.868 | 252  | 443974   | 51.6689 | ng    | 96       |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 438219m  | 50.6845 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 421800   | 51.2580 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 459324   | 51.3400 | ng    | 98       |
| 109) | Dibenzo[a,h]anthracene    | 15.572 | 278  | 388245   | 49.7787 | ng    | 93       |
| 110) | Benzo[g,h,i]perylene      | 15.925 | 276  | 382351   | 50.3680 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form7

8101509 0510

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/26/2018 8:36:00Data File: 7M95342.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc   | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|-----------------------------|------|-----------|------|------|--------|----------|--------|--------|------------|-------|-------|------|
| 1,4-Dioxane-d8(INT)         | 1    | 0         | I    | 2.52 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dioxane                 | 1    | 0         |      | 2.54 | 50.56  | 50       | 5      | 70     | 0.940      | 0.950 | 1.11  |      |
| Pyridine                    | 1    | 0         |      | 2.97 | 49.82  | 50       | 2.5    | 75     | 2.543      | 2.483 | 0.36  |      |
| N-Nitrosodimethylamine      | 1    | 0         |      | 2.91 | 47.92  | 50       | 15     | 70     | 1.450      | 1.390 | 4.16  |      |
| 2-Fluorophenol              | 1    | 0         | S    | 4.54 | 48.04  | 50       | **     |        | 2.146      | 2.062 | 3.93  |      |
| Benzaldehyde                | 1    | 0         |      | 5.36 | 34.68  | 50       | 2.5    | 115    | 1.115      | 0.774 | 30.65 |      |
| Aniline                     | 1    | 0         |      | 5.46 | 48.89  | 50       | 5      | 70     | 2.833      | 2.770 | 2.22  |      |
| Pentachloroethane           | 1    | 0         |      | 5.51 | 50.39  | 50       | 30     | 70     | 0.725      | 0.730 | 0.79  |      |
| bis(2-Chloroethyl)ether     | 1    | 0         |      | 5.52 | 50.01  | 50       | 26     | 65     | 2.222      | 2.193 | 0.02  |      |
| Phenol-d5                   | 1    | 0         | S    | 5.43 | 48.26  | 50       | **     |        | 3.039      | 2.934 | 3.48  |      |
| Phenol                      | 1    | 0         |      | 5.44 | 48.97  | 50       | 24     | 65     | 3.018      | 2.956 | 2.05  |      |
| 2-Chlorophenol              | 1    | 0         |      | 5.56 | 49.53  | 50       | 27.5   | 65     | 2.243      | 2.222 | 0.93  |      |
| N-Decane                    | 1    | 0         |      | 5.62 | 48.69  | 50       | 30     | 70     | 1.935      | 1.884 | 2.62  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 5.69 | 50.53  | 50       | 30     | 70     | 2.413      | 2.439 | 1.07  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 5.75 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 5.76 | 49.32  | 50       | 30     | 70     | 1.460      | 1.440 | 1.35  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 5.89 | 49.91  | 50       | 30     | 70     | 1.379      | 1.377 | 0.18  |      |
| Benzyl alcohol              | 1    | 0         |      | 5.85 | 44.64  | 50       | 30     | 70     | 0.881      | 0.787 | 10.72 |      |
| bis(2-chloroisopropyl)ether | 1    | 0         |      | 5.97 | 48.42  | 50       | 31.5   | 69.5   | 1.346      | 1.304 | 3.16  |      |
| 2-Methylphenol              | 1    | 0         |      | 5.95 | 47.54  | 50       | 30     | 70     | 1.205      | 1.146 | 4.92  |      |
| Acetophenone                | 1    | 0         |      | 6.07 | 49.46  | 50       | 30     | 70     | 1.723      | 1.704 | 1.09  |      |
| Hexachloroethane            | 1    | 0         |      | 6.16 | 50.37  | 50       | 27.5   | 65     | 0.534      | 0.538 | 0.73  |      |
| N-Nitroso-di-n-propylamine  | 1    | 0         |      | 6.07 | 46.31  | 50       | 29.5   | 85     | 0.837      | 0.775 | 7.38  |      |
| 3&4-Methylphenol            | 1    | 0         |      | 6.07 | 47.94  | 50       | 30     | 70     | 1.203      | 1.154 | 4.11  |      |
| Naphthalene-d8              | 1    | 0         | I    | 6.76 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| Nitrobenzene-d5             | 1    | 0         | S    | 6.19 | 24.60  | 25       | **     |        | 0.126      | 0.124 | 1.58  |      |
| Nitrobenzene                | 1    | 0         |      | 6.21 | 49.84  | 50       | 27     | 79     | 0.334      | 0.333 | 0.32  |      |
| Isophorone                  | 1    | 0         |      | 6.39 | 47.78  | 50       | 26     | 90     | 0.617      | 0.590 | 4.44  |      |
| 2-Nitrophenol               | 1    | 0         |      | 6.46 | 50.80  | 50       | 30.5   | 81.5   | 0.178      | 0.180 | 1.60  |      |
| 2,4-Dimethylphenol          | 1    | 0         |      | 6.48 | 48.01  | 50       | 29     | 65     | 0.332      | 0.319 | 3.98  |      |
| Benzoic Acid                | 1    | 0         |      | 6.56 | 43.51  | 50       | 5      | 70     | 0.326      | 0.286 | 12.98 |      |
| bis(2-Chloroethoxy)methane  | 1    | 0         |      | 6.56 | 49.90  | 50       | 26     | 82     | 0.418      | 0.417 | 0.20  |      |
| 2,4-Dichlorophenol          | 1    | 0         |      | 6.64 | 49.76  | 50       | 27     | 65     | 0.280      | 0.278 | 0.48  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 6.71 | 50.34  | 50       | 25.5   | 65     | 0.312      | 0.314 | 0.69  |      |
| Naphthalene                 | 1    | 0         |      | 6.77 | 49.49  | 50       | 35     | 65     | 1.067      | 1.056 | 1.02  |      |
| 4-Chloroaniline             | 1    | 0         |      | 6.80 | 47.70  | 50       | 15     | 115    | 0.353      | 0.380 | 4.60  |      |
| Hexachlorobutadiene         | 1    | 0         |      | 6.87 | 50.40  | 50       | 34     | 65     | 0.158      | 0.159 | 0.80  |      |
| Caprolactam                 | 1    | 0         |      | 7.07 | 45.13  | 50       | 30     | 70     | 0.116      | 0.105 | 9.74  |      |
| 4-Chloro-3-methylphenol     | 1    | 0         |      | 7.16 | 48.66  | 50       | 34     | 65     | 0.279      | 0.271 | 2.69  |      |
| 2-Methylnaphthalene         | 1    | 0         |      | 7.30 | 50.37  | 50       | 30     | 70     | 0.696      | 0.701 | 0.73  |      |
| 1-Methylnaphthalene         | 1    | 0         |      | 7.38 | 50.03  | 50       | 30     | 70     | 0.677      | 0.677 | 0.06  |      |
| Methylnaphthalenes          | 1    | 0         |      | 7.30 | 100.34 | 100      | **     |        |            | 0.689 | 0.34  |      |
| 1,1'-Biphenyl               | 1    | 0         |      | 7.67 | 50.01  | 50       | 30     | 70     | 0.811      | 0.811 | 0.02  |      |
| Acenaphthene-d10            | 1    | 0         | I    | 8.17 | 40.00  | 40       | **     |        |            | 0.000 | 0.00  |      |
| 1,2,4,5-Tetrachlorobenzene  | 1    | 0         |      | 7.44 | 51.03  | 50       | 30     | 70     | 0.528      | 0.539 | 2.06  |      |
| Hexachlorocyclopentadiene   | 1    | 0         |      | 7.43 | 55.71  | 50       | 5      | 70     | 0.243      | 0.281 | 11.43 |      |
| 2,4,6-Trichlorophenol       | 1    | 0         |      | 7.52 | 49.95  | 50       | 34.5   | 65     | 0.344      | 0.343 | 0.09  |      |
| 2,4,5-Trichlorophenol       | 1    | 0         |      | 7.55 | 49.51  | 50       | 30     | 70     | 0.354      | 0.351 | 0.97  |      |
| 2-Fluorobiphenyl            | 1    | 0         | S    | 7.59 | 25.06  | 25       | **     |        | 1.270      | 1.273 | 0.24  |      |
| 2-Chloronaphthalene         | 1    | 0         |      | 7.69 | 50.80  | 50       | 35     | 65     | 1.087      | 1.104 | 1.61  |      |
| 1,4-Dimethylnaphthalene     | 1    | 0         |      | 7.97 | 50.50  | 50       | 30     | 70     | 0.944      | 0.953 | 0.99  |      |
| Dimethylnaphthalenes        | 1    | 0         |      | 7.97 | 50.50  |          | **     |        |            |       |       |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this runI-Internal Standard Compound  
CI-Compound %Diff exceeds limitsPage 1 of 3  
\*\* - No limit specified in methodNote: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0511

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
Cont Calibration Date/Time 10/26/2018 8:36:00

Data File: 7M95342.D  
Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                  | Col# | Multi Num | Type | RT    | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff | Flag |
|----------------------------|------|-----------|------|-------|-------|----------|--------|--------|------------|-------|-------|------|
| Diphenyl Ether             | 1    | 0         |      | 7.76  | 50.44 | 50       | 30     | 70     | 0.809      | 0.816 | 0.88  |      |
| 2-Nitroaniline             | 1    | 0         |      | 7.77  | 50.96 | 50       | 30     | 70     | 0.325      | 0.332 | 1.92  |      |
| Coumarin                   | 1    | 0         |      | 7.95  | 50.10 | 50       | 30     | 70     | 0.453      | 0.454 | 0.21  |      |
| Acenaphthylene             | 1    | 0         |      | 8.04  | 49.61 | 50       | 30     | 65     | 1.623      | 1.610 | 0.78  |      |
| Dimethylphthalate          | 1    | 0         |      | 7.92  | 50.00 | 50       | 25     | 65     | 1.193      | 1.193 | 0.00  |      |
| 2,6-Dinitrotoluene         | 1    | 0         |      | 7.96  | 54.47 | 50       | 34     | 68.5   | 0.258      | 0.281 | 8.93  |      |
| Acenaphthene               | 1    | 0         |      | 8.19  | 50.08 | 50       | 35     | 65     | 1.110      | 1.112 | 0.15  |      |
| 3-Nitroaniline             | 1    | 0         |      | 8.11  | 54.54 | 50       | 30     | 70     | 0.286      | 0.312 | 9.08  |      |
| 2,4-Dinitrophenol          | 1    | 0         |      | 8.20  | 56.84 | 50       | 19.5   | 86.5   | 0.112      | 0.137 | 13.68 |      |
| Dibenzofuran               | 1    | 0         |      | 8.35  | 49.39 | 50       | 30     | 70     | 1.566      | 1.547 | 1.22  |      |
| 2,4-Dinitrotoluene         | 1    | 0         |      | 8.32  | 51.11 | 50       | 26.5   | 65     | 0.338      | 0.372 | 2.22  |      |
| 4-Nitrophenol              | 1    | 0         |      | 8.24  | 51.44 | 50       | 12.5   | 65     | 0.194      | 0.207 | 2.88  |      |
| 2,3,4,6-Tetrachlorophenol  | 1    | 0         |      | 8.46  | 49.77 | 50       | 30     | 70     | 0.301      | 0.308 | 0.46  |      |
| Fluorene                   | 1    | 0         |      | 8.67  | 50.20 | 50       | 35     | 65     | 1.226      | 1.231 | 0.40  |      |
| 4-Chlorophenyl-phenylether | 1    | 0         |      | 8.66  | 50.82 | 50       | 28.5   | 72.5   | 0.565      | 0.574 | 1.63  |      |
| Diethylphthalate           | 1    | 0         |      | 8.54  | 49.39 | 50       | 23.5   | 65     | 1.199      | 1.184 | 1.21  |      |
| 4-Nitroaniline             | 1    | 0         |      | 8.66  | 47.64 | 50       | 30     | 70     | 0.327      | 0.335 | 4.72  |      |
| Atrazine                   | 1    | 0         |      | 9.29  | 46.49 | 50       | 5      | 70     | 0.360      | 0.335 | 7.03  |      |
| Phenanthrene-d10           | 1    | 0         | I    | 9.61  | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| 4,6-Dinitro-2-methylphenol | 1    | 0         |      | 8.70  | 54.93 | 50       | 28     | 65     | 0.087      | 0.102 | 9.86  |      |
| n-Nitrosodiphenylamine     | 1    | 0         |      | 8.77  | 48.22 | 50       | 30     | 70     | 0.621      | 0.599 | 3.57  |      |
| 2,4,6-Tribromophenol       | 1    | 0         | S    | 8.89  | 47.96 | 50       | **     |        | 0.091      | 0.090 | 4.09  |      |
| 1,2-Diphenylhydrazine      | 1    | 0         |      | 8.81  | 47.69 | 50       | 30     | 70     | 0.708      | 0.675 | 4.62  |      |
| 4-Bromophenyl-phenylether  | 1    | 0         |      | 9.14  | 48.28 | 50       | 35     | 65     | 0.197      | 0.190 | 3.45  |      |
| Hexachlorobenzene          | 1    | 0         |      | 9.21  | 48.77 | 50       | 19     | 71     | 0.200      | 0.195 | 2.47  |      |
| N-Octadecane               | 1    | 0         |      | 9.49  | 48.04 | 50       | 30     | 70     | 0.381      | 0.366 | 3.91  |      |
| Pentachlorophenol          | 1    | 0         |      | 9.40  | 49.01 | 50       | 21     | 76     | 0.122      | 0.115 | 1.98  |      |
| Phenanthrene               | 1    | 0         |      | 9.64  | 48.87 | 50       | 33.5   | 65     | 1.081      | 1.056 | 2.27  |      |
| Anthracene                 | 1    | 0         |      | 9.69  | 49.09 | 50       | 29     | 65     | 1.096      | 1.076 | 1.83  |      |
| Carbazole                  | 1    | 0         |      | 9.85  | 48.03 | 50       | 30     | 70     | 1.001      | 0.962 | 3.93  |      |
| Di-n-butylphthalate        | 1    | 0         |      | 10.24 | 47.76 | 50       | 26     | 65     | 1.141      | 1.090 | 4.49  |      |
| Fluoranthene               | 1    | 0         |      | 10.95 | 48.85 | 50       | 23.5   | 65     | 1.120      | 1.094 | 2.30  |      |
| Chrysene-d12               | 1    | 0         | I    | 12.64 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Pyrene                     | 1    | 0         |      | 11.21 | 49.67 | 50       | 35     | 65     | 1.158      | 1.150 | 0.66  |      |
| Benzidine                  | 1    | 0         |      | 11.10 | 31.55 | 50       | 2.5    | 75     | 0.347      | 0.249 | 36.89 |      |
| Terphenyl-d14              | 1    | 0         | S    | 11.40 | 24.38 | 25       | **     |        | 0.686      | 0.669 | 2.46  |      |
| 4,4'-DDE                   | 1    | 0         |      | 11.34 | 48.45 |          | **     |        | 0.240      |       |       |      |
| 4,4'-DDD                   | 1    | 0         |      | 11.74 | 48.79 |          | **     |        | 0.408      |       |       |      |
| Butylbenzylphthalate       | 1    | 0         |      | 11.99 | 43.69 | 50       | 21.5   | 70     | 0.509      | 0.463 | 12.63 |      |
| 4,4'-DDT                   | 1    | 0         |      | 12.09 | 57.24 |          | **     |        | 0.309      |       |       |      |
| 3,3'-Dichlorobenzidine     | 1    | 0         |      | 12.60 | 45.39 | 50       | 9      | 107    | 0.316      | 0.312 | 9.22  |      |
| Benzo[a]anthracene         | 1    | 0         |      | 12.63 | 49.77 | 50       | 21     | 66.5   | 1.100      | 1.095 | 0.47  |      |
| Chrysene                   | 1    | 0         |      | 12.67 | 49.56 | 50       | 22     | 70     | 1.013      | 1.004 | 0.88  |      |
| bis(2-Ethylhexyl)phthalate | 1    | 0         |      | 12.70 | 43.82 | 50       | 21.5   | 68.5   | 0.688      | 0.634 | 12.37 |      |
| Perylene-d12               | 1    | 0         | I    | 14.26 | 40.00 | 40       | **     |        |            | 0.000 | 0.00  |      |
| Di-n-octylphthalate        | 1    | 0         |      | 13.45 | 39.00 | 50       | 10.5   | 66     | 1.287      | 1.095 | 22.00 |      |
| Benzo[b]fluoranthene       | 1    | 0         |      | 13.85 | 47.45 | 50       | 21     | 70     | 1.146      | 1.086 | 5.10  |      |
| Benzo[k]fluoranthene       | 1    | 0         |      | 13.88 | 53.73 | 50       | 12.5   | 73     | 1.101      | 1.183 | 7.46  |      |
| Benzo[a]pyrene             | 1    | 0         |      | 14.20 | 49.81 | 50       | 16     | 74     | 1.085      | 1.081 | 0.39  |      |
| Indeno[1,2,3-cd]pyrene     | 1    | 0         |      | 15.51 | 50.20 | 50       | 6.5    | 75.5   | 1.160      | 1.164 | 0.39  |      |
| Dibenzo[a,h]anthracene     | 1    | 0         |      | 15.54 | 50.37 | 50       | 6.5    | 100    | 0.966      | 0.973 | 0.74  |      |
| Benzo[g,h,i]perylene       | 1    | 0         |      | 15.87 | 50.64 | 50       | 6.5    | 97.5   | 0.972      | 0.985 | 1.27  |      |

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

C1-Compound %Diff exceeds limits

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\*\* - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

## Form7

8101509 0512

## Continuing Calibration

Calibration Name: CAL BNA@50PPM  
 Cont Calibration Date/Time 10/26/2018 8:36:00

Data File: 7M95342.D  
 Method: EPA 625.1

Instrument: GCMS 7

| TxtCompd:                      | Col# | Multi<br>Num | Type | RT   | Conc | Conc<br>Exp | Lo<br>Lim | MIN<br>RF | Initial<br>RF | RF    | %Diff  | Flag |
|--------------------------------|------|--------------|------|------|------|-------------|-----------|-----------|---------------|-------|--------|------|
| gamma-BHC                      | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor                     | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Heptachlor epoxide             | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Endrin                         | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Methoxychlor                   | 1    | 100          |      | 0.00 | 0.00 | 10          | **        |           |               | 0.000 | 100.00 |      |
| Methylnaphthalenes (Total)     | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.686         | 0.000 | 100.00 |      |
| Diaminotoluene Dihydrochloride | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| 2,4 Diaminotoluene             | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Toluene Diisocyanate           | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           |               | 0.000 | 100.00 |      |
| Dimethylnaphthalenes (Total)   | 1    | 100          |      | 0.00 | 0.00 | 50          | **        |           | 0.944         | 0.000 | 100.00 |      |

S-Surrogate Compound  
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
 CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

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Note: 8260/8270 limits are compared against the %DIFF/R.F.  
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM  
Data File: 7M95342.D  
Acq On : 10/26/18 08:36

Operator : AH/JB  
Sam Mult : 1 Vial# : 2  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/26/18 08:52  
Qt Upd On: 10/17/18 08:02

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-26-18\  
Qt Path : G:\GCMSData\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.515  | 96   | 79559      | 40.00    | ng    | 0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.747  | 152  | 135075     | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.757  | 136  | 495876     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.167  | 164  | 282515     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.610  | 188  | 500947     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.639 | 240  | 493917     | 40.00    | ng    | -0.01    |
| 103) Perylene-d12              | 14.257 | 264  | 429218     | 40.00    | ng    | -0.02    |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 205014     | 48.04    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.04%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 291757     | 48.26    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 48.26%   |       |          |
| 32) Nitrobenzene-d5            | 6.191  | 128  | 38298      | 24.60    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 49.20%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.590  | 172  | 224783     | 25.06    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 50.12%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.894  | 330  | 56641      | 47.96    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 47.96%   |       |          |
| 94) Terphenyl-d14              | 11.405 | 244  | 206645     | 24.38    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 48.76%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 94484      | 50.5564  | ng    | 91       |
| 9) Pyridine                    | 2.975  | 79   | 246918     | 49.8206  | ng    | 59       |
| 10) N-Nitrosodimethylamine     | 2.905  | 74   | 138203     | 47.9221  | ng    | 68       |
| 12) Benzaldehyde               | 5.362  | 77   | 76929      | 34.6774  | ng    | 70       |
| 13) Aniline                    | 5.459  | 93   | 275444m    | 48.8882  | ng    |          |
| 14) Pentachloroethane          | 5.507  | 117  | 72644      | 50.3945  | ng    | 82       |
| 15) bis(2-Chloroethyl) ether   | 5.517  | 93   | 218113     | 50.0116  | ng    | 75       |
| 17) Phenol                     | 5.437  | 94   | 294005     | 48.9741  | ng    | 76       |
| 18) 2-Chlorophenol             | 5.560  | 128  | 220988     | 49.5338  | ng    | 77       |
| 19) N-Decane                   | 5.619  | 57   | 187411     | 48.6883  | ng    | 86       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 242550     | 50.5330  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.758  | 146  | 243131     | 49.3228  | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.886  | 146  | 232420     | 49.9079  | ng    | 98       |
| 24) Benzyl alcohol             | 5.854  | 108  | 132857     | 44.6380  | ng    | 68       |
| 25) bis(2-chloroisopropyl)...  | 5.972  | 45   | 220125     | 48.4209  | ng    | 96       |
| 26) 2-Methylphenol             | 5.950  | 108  | 193518     | 47.5384  | ng    | 98       |
| 27) Acetophenone               | 6.073  | 105  | 287765     | 49.4570  | ng    | 67       |
| 28) Hexachloroethane           | 6.164  | 117  | 90858      | 50.3653  | ng    | 87       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 130920     | 46.3093  | ng    | 89       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 194798     | 47.9444  | ng    | 99       |
| 33) Nitrobenzene               | 6.207  | 77   | 206530     | 49.8375  | ng    | 74       |
| 34) Isophorone                 | 6.394  | 82   | 365606     | 47.7819  | ng    | 86       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 111443     | 50.7998  | ng    | 79       |
| 36) 2,4-Dimethylphenol         | 6.484  | 107  | 197821     | 48.0096  | ng    | 89       |
| 37) Benzoic Acid               | 6.559  | 105  | 177541     | 43.5107  | ng    | 40       |
| 38) bis(2-Chloroethoxy)met...  | 6.559  | 93   | 258506     | 49.8998  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.639  | 162  | 172458     | 49.7622  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.709  | 180  | 194626     | 50.3431  | ng    | 97       |
| 41) Naphthalene                | 6.773  | 128  | 654421     | 49.4917  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 235784m    | 47.6988  | ng    |          |
| 43) Hexachlorobutadiene        | 6.869  | 225  | 98817      | 50.4008  | ng    | 97       |
| 44) Caprolactam                | 7.067  | 113  | 65062      | 45.1287  | ng    | 54       |
| 45) 4-Chloro-3-methylphenol    | 7.163  | 107  | 168006     | 48.6570  | ng    | 79       |
| 46) 2-Methylnaphthalene        | 7.302  | 142  | 434369     | 50.3651  | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.382  | 142  | 419614     | 50.0308  | ng    | 92       |
| 48) Methylnaphthalenes (To...  | 7.302  | 142  | 853726m    | 100.3416 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.670  | 154  | 502929     | 50.0119  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.435  | 216  | 190430     | 51.0316  | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.430  | 237  | 99135      | 55.7139  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.521  | 196  | 121237     | 49.9545  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.547  | 196  | 123792     | 49.5149  | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.692  | 162  | 390010     | 50.8032  | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 7.970  | 156  | 336529     | 50.4964  | ng    | 87       |
| 58) Dimethylnaphthalenes (...) | 7.970  | 156  | 336529     | 50.4964  | ng    | 87       |
| 59) Diphenyl Ether             | 7.756  | 170  | 288141     | 50.4415  | ng    | 77       |
| 60) 2-Nitroaniline             | 7.766  | 65   | 117123     | 50.9590  | ng    | 37       |
| 61) Coumarin                   | 7.948  | 146  | 160388     | 50.1036  | ng    | 85       |
| 62) Acenaphthylene             | 8.044  | 152  | 568730     | 49.6104  | ng    | 99       |
| 63) Dimethylphthalate          | 7.916  | 163  | 421338     | 50.0010  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.964  | 165  | 99166      | 54.4652  | ng    | 61       |
| 65) Acenaphthene               | 8.194  | 153  | 392753     | 50.0758  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M\_1008.M  
 Data File: 7M95342.D Sam Mult : 1 Vial# : 2 Qt On : 10/26/18 08:52  
 Acq On : 10/26/18 08:36 Misc : A,BNA Qt Upd On: 10/17/18 08:02

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.114  | 138  | 110030   | 54.5397 | ng    | 71       |
| 67)  | 2,4-Dinitrophenol         | 8.199  | 184  | 48297    | 56.8388 | ng    | 64       |
| 68)  | Dibenzofuran              | 8.349  | 168  | 546146   | 49.3884 | ng    | 84       |
| 69)  | 2,4-Dinitrotoluene        | 8.317  | 165  | 131520   | 51.1100 | ng    | 61       |
| 70)  | 4-Nitrophenol             | 8.237  | 65   | 73049    | 51.4396 | ng    | 81       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.456  | 232  | 108869   | 49.7680 | ng    | 84       |
| 72)  | Fluorene                  | 8.669  | 166  | 434748   | 50.2025 | ng    | 99       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.659  | 204  | 202754   | 50.8167 | ng    | 84       |
| 74)  | Diethylphthalate          | 8.541  | 149  | 418168   | 49.3939 | ng    | 97       |
| 75)  | 4-Nitroaniline            | 8.664  | 138  | 118266   | 47.6417 | ng    | 70       |
| 76)  | Atrazine                  | 9.294  | 200  | 118317   | 46.4854 | ng    | 95       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.696  | 198  | 63587    | 54.9294 | ng    | 66       |
| 79)  | n-Nitrosodiphenylamine    | 8.765  | 169  | 374974   | 48.2154 | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.814  | 77   | 422738   | 47.6912 | ng    | 76       |
| 82)  | 4-Bromophenyl-phenylether | 9.139  | 248  | 119024   | 48.2765 | ng    | 81       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 122125   | 48.7671 | ng    | 72       |
| 84)  | N-Octadecane              | 9.487  | 57   | 229165   | 48.0431 | ng    | 68       |
| 85)  | Pentachlorophenol         | 9.401  | 266  | 72241    | 49.0104 | ng    | 95       |
| 86)  | Phenanthrene              | 9.636  | 178  | 661454   | 48.8653 | ng    | 100      |
| 87)  | Anthracene                | 9.690  | 178  | 673711   | 49.0856 | ng    | 100      |
| 88)  | Carbazole                 | 9.850  | 167  | 602173   | 48.0345 | ng    | 97       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 682580   | 47.7551 | ng    | 97       |
| 90)  | Fluoranthene              | 10.950 | 202  | 684956   | 48.8482 | ng    | 96       |
| 92)  | Pyrene                    | 11.212 | 202  | 710298   | 49.6706 | ng    | 90       |
| 93)  | Benzidine                 | 11.100 | 184  | 153830   | 31.5541 | ng    | 90       |
| 95)  | 4,4'-DDE                  | 11.340 | 246  | 143430   | 48.4499 | ng    | 94       |
| 96)  | 4,4'-DDD                  | 11.736 | 235  | 245755   | 48.7923 | ng    | 96       |
| 97)  | Butylbenzylphthalate      | 11.992 | 149  | 285949   | 43.6852 | ng    | 73       |
| 98)  | 4,4'-DDT                  | 12.094 | 235  | 215949   | 57.2369 | ng    | 98       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.601 | 252  | 192557   | 45.3893 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.628 | 228  | 676162   | 49.7667 | ng    | 99       |
| 101) | Chrysene                  | 12.671 | 228  | 620036   | 49.5577 | ng    | 98       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.697 | 149  | 391122   | 43.8171 | ng    | 94       |
| 104) | Di-n-octylphthalate       | 13.445 | 149  | 587260   | 38.9988 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.851 | 252  | 582879   | 47.4484 | ng    | 95       |
| 106) | Benzo[k]fluoranthene      | 13.878 | 252  | 634785m  | 53.7310 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.199 | 252  | 579853   | 49.8059 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.513 | 276  | 624746   | 50.1970 | ng    | 90       |
| 109) | Dibenzo[a,h]anthracene    | 15.539 | 278  | 522020   | 50.3698 | ng    | 92       |
| 110) | Benzo[g,h,i]perylene      | 15.871 | 276  | 528249   | 50.6367 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**GC/MS Base Neutral/Acid Extractable Data**  
**Raw QC Data**

## Form 5

8101509 0517

Tune Name: CAL DFTPP

Data File: 10M71228.D

Instrument: GCMS 10

Analysis Date: 10/08/18 08:27

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.071 to 10.076 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 33.7  | 31368 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.5   | 506   | PASS  |
| 69   | 198  | 0.00 | 100 | 37.0  | 34444 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 151   | PASS  |
| 127  | 198  | 40   | 60  | 48.5  | 45148 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 93088 | PASS  |
| 199  | 198  | 5    | 9   | 5.8   | 5379  | PASS  |
| 275  | 198  | 10   | 30  | 23.9  | 22288 | PASS  |
| 365  | 198  | 1    | 100 | 2.8   | 2610  | PASS  |
| 441  | 443  | 0.01 | 100 | 66.2  | 8665  | PASS  |
| 442  | 198  | 40   | 100 | 69.8  | 64968 | PASS  |
| 443  | 442  | 17   | 23  | 20.2  | 13098 | PASS  |

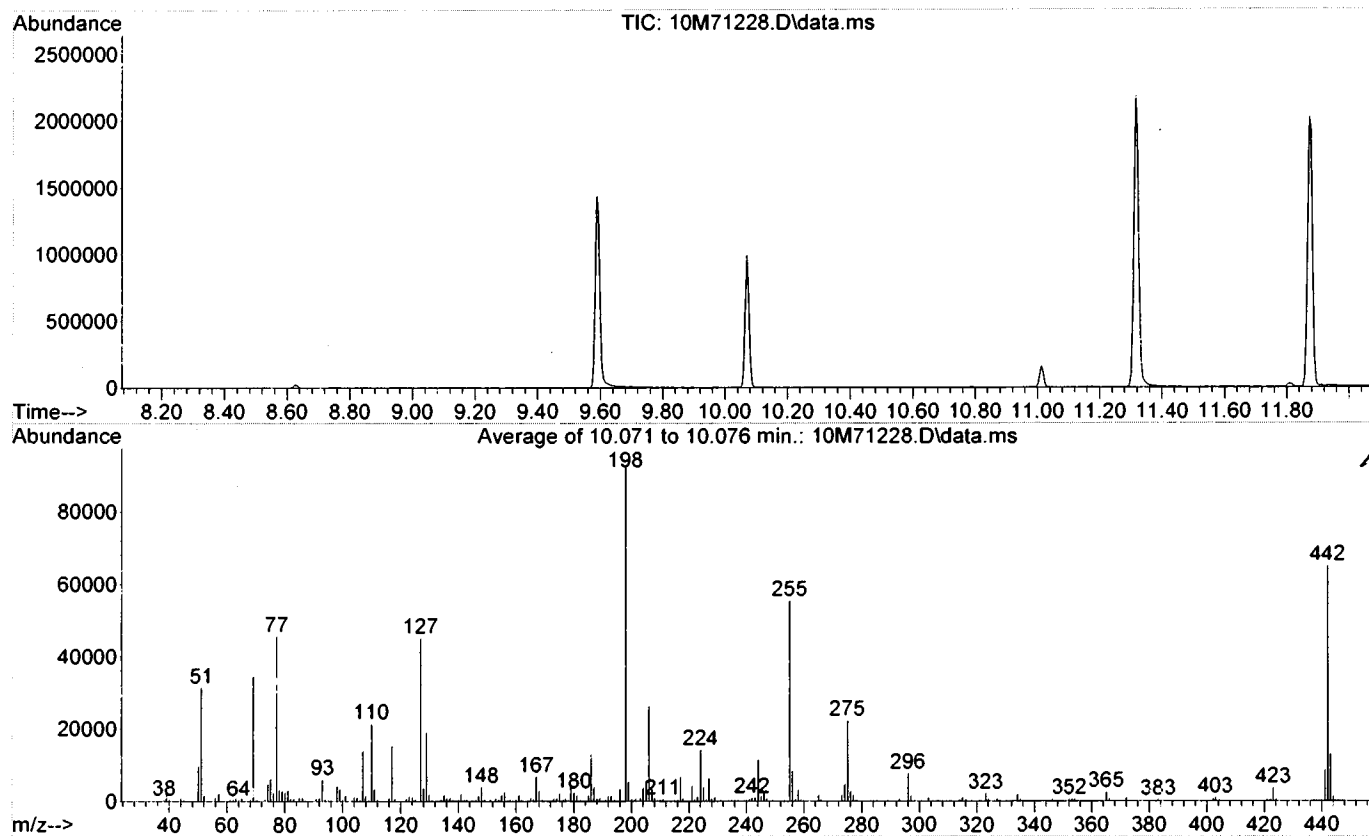
| Data File  | Sample Number | Analysis Date: |
|------------|---------------|----------------|
| 10M71229.D | CAL BNA@10PPM | 10/08/18 08:51 |
| 10M71230.D | CAL BNA@2PPM  | 10/08/18 09:15 |
| 10M71231.D | CAL BNA@196PP | 10/08/18 09:38 |
| 10M71232.D | CAL BNA@160PP | 10/08/18 10:00 |
| 10M71233.D | CAL BNA@120PP | 10/08/18 10:22 |
| 10M71234.D | CAL BNA@80PPM | 10/08/18 10:44 |
| 10M71235.D | CAL BNA@20PPM | 10/08/18 11:06 |
| 10M71236.D | CAL BNA@.5PPM | 10/08/18 11:28 |
| 10M71237.D | CAL BNA@50PPM | 10/08/18 11:51 |
| 10M71238.D | ICV BNA@50PPM | 10/08/18 12:15 |



Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-08-18\  
Data File : 10M71228.D  
Acq On : 8 Oct 2018 8:27  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_10\MethodQt\10M\_0823.M  
Title : @GCMS\_10,mg,625,8270  
Last Update : Thu Aug 23 12:21:53 2018



Spectrum Information: Average of 10.071 to 10.076 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 33.7      | 31368   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.5       | 506     | PASS             |
| 69          | 198          | 0.00         | 100          | 37.0      | 34444   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.4       | 151     | PASS             |
| 127         | 198          | 40           | 60           | 48.5      | 45148   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 93088   | PASS             |
| 199         | 198          | 5            | 9            | 5.8       | 5379    | PASS             |
| 275         | 198          | 10           | 30           | 23.9      | 22288   | PASS             |
| 365         | 198          | 1            | 100          | 2.8       | 2610    | PASS             |
| 441         | 443          | 0.01         | 100          | 66.2      | 8665    | PASS             |
| 442         | 198          | 40           | 100          | 69.8      | 64968   | PASS             |
| 443         | 442          | 17           | 23           | 20.2      | 13098   | PASS             |

## Form 5

8101509 0519

Tune Name: CAL DFTPP

Data File: 5M105686.D

Instrument: GCMS 5

Analysis Date: 10/08/18 08:31

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.893 to 9.898 min

| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw    | Pass/ |
|------|------|------|-----|-------|--------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund  | Fail  |
| 51   | 198  | 30   | 60  | 42.9  | 49432  | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      | PASS  |
| 69   | 198  | 0.00 | 100 | 41.9  | 48280  | PASS  |
| 70   | 69   | 0.00 | 2   | 0.6   | 274    | PASS  |
| 127  | 198  | 40   | 60  | 51.9  | 59880  | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 115296 | PASS  |
| 199  | 198  | 5    | 9   | 6.9   | 7977   | PASS  |
| 275  | 198  | 10   | 30  | 19.9  | 22916  | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 2483   | PASS  |
| 441  | 443  | 0.01 | 100 | 78.8  | 7853   | PASS  |
| 442  | 198  | 40   | 100 | 43.7  | 50428  | PASS  |
| 443  | 442  | 17   | 23  | 19.8  | 9961   | PASS  |

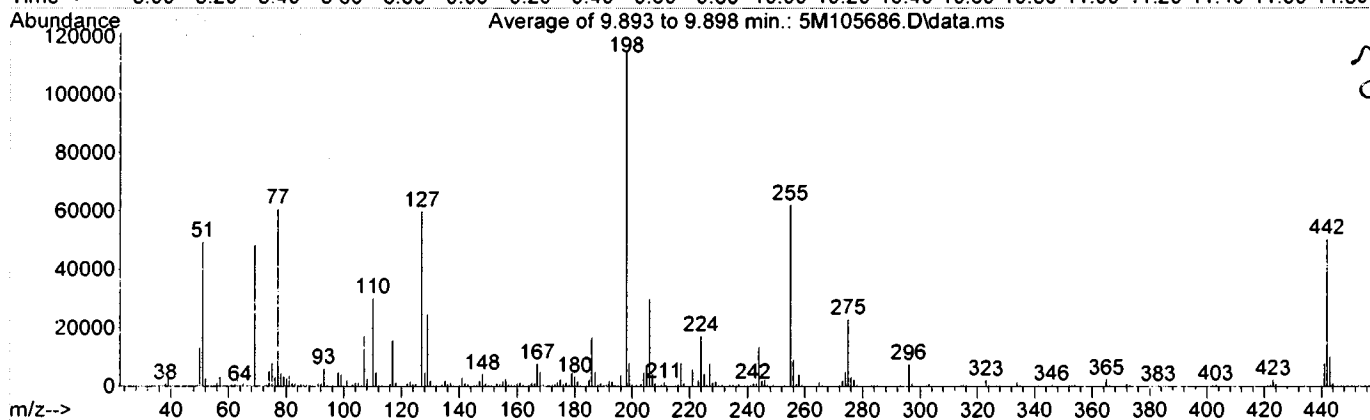
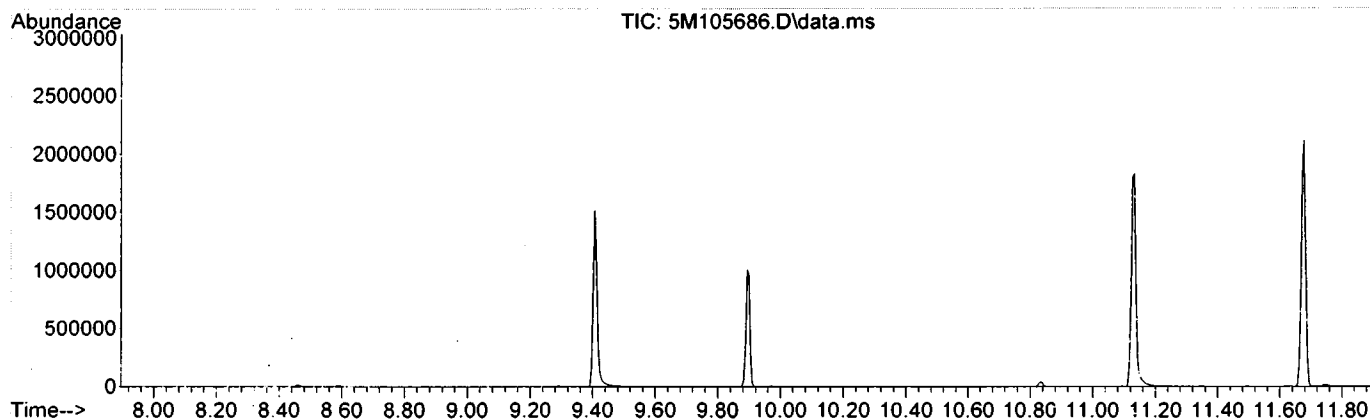
| Data File  | Sample Number | Analysis Date: |
|------------|---------------|----------------|
| 5M105687.D | CAL BNA@10PPM | 10/08/18 08:57 |
| 5M105688.D | CAL BNA@2PPM  | 10/08/18 09:20 |
| 5M105689.D | CAL BNA@196PP | 10/08/18 09:45 |
| 5M105690.D | CAL BNA@160PP | 10/08/18 10:11 |
| 5M105691.D | CAL BNA@120PP | 10/08/18 10:34 |
| 5M105692.D | CAL BNA@80PPM | 10/08/18 10:57 |
| 5M105693.D | CAL BNA@20PPM | 10/08/18 11:26 |
| 5M105694.D | CAL BNA@.5PPM | 10/08/18 11:49 |
| 5M105695.D | CAL BNA@50PPM | 10/08/18 12:12 |
| 5M105696.D | CAL BNA@2PPM  | 10/08/18 12:40 |
| 5M105697.D | ICV BNA@50PPM | 10/08/18 13:09 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-08-18\  
 Data File : SM105686.D  
 Acq On : 8 Oct 2018 8:31  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

8101509 0520

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_0821.M  
 Title : @GCMS\_5,mg,625,8270  
 Last Update : Tue Aug 21 13:22:25 2018



Spectrum Information: Average of 9.893 to 9.898 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 42.9      | 49432   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 41.9      | 48280   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.6       | 274     | PASS             |
| 127         | 198          | 40           | 60           | 51.9      | 59880   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 115296  | PASS             |
| 199         | 198          | 5            | 9            | 6.9       | 7977    | PASS             |
| 275         | 198          | 10           | 30           | 19.9      | 22916   | PASS             |
| 365         | 198          | 1            | 100          | 2.2       | 2483    | PASS             |
| 441         | 443          | 0.01         | 100          | 78.8      | 7853    | PASS             |
| 442         | 198          | 40           | 100          | 43.7      | 50428   | PASS             |
| 443         | 442          | 17           | 23           | 19.8      | 9961    | PASS             |

## Form 5

Tune Name: CAL DFTPP

Data File: 7M95168.D

Instrument: GCMS 7

Analysis Date: 10/08/18 12:40

Method: EPA 625.1

Tune Scan/Time Range: Scan 1442

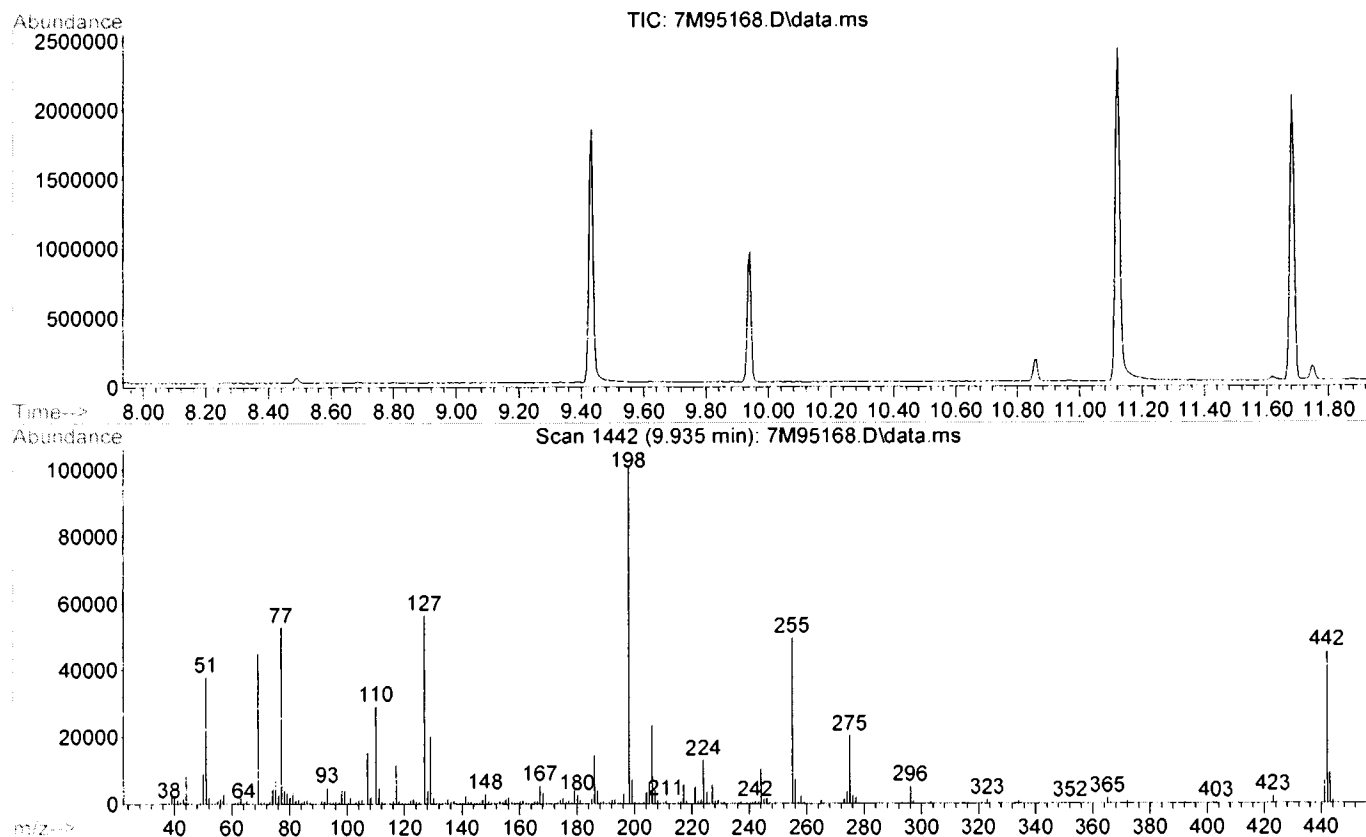
| Tgt  | Rel  | Lo   | Hi  | Lim   | Rel    | Raw   | Pass/ |
|------|------|------|-----|-------|--------|-------|-------|
| Mass | Mass | Lim  |     |       | Abund  | Abund | Fail  |
| 51   | 198  | 30   | 60  | 37.5  | 38048  |       | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0      |       | PASS  |
| 69   | 198  | 0.00 | 100 | 44.4  | 45008  |       | PASS  |
| 70   | 69   | 0.00 | 2   | 1.5   | 676    |       | PASS  |
| 127  | 198  | 40   | 60  | 55.7  | 56512  |       | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0      |       | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 101376 |       | PASS  |
| 199  | 198  | 5    | 9   | 7.2   | 7306   |       | PASS  |
| 275  | 198  | 10   | 30  | 20.2  | 20520  |       | PASS  |
| 365  | 198  | 1    | 100 | 1.9   | 1910   |       | PASS  |
| 441  | 443  | 0.01 | 100 | 71.6  | 6775   |       | PASS  |
| 442  | 198  | 40   | 100 | 44.9  | 45488  |       | PASS  |
| 443  | 442  | 17   | 23  | 20.8  | 9464   |       | PASS  |

| Data File | Sample Number    | Analysis Date: |
|-----------|------------------|----------------|
| 7M95169.D | CAL BNA@10PPM    | 10/08/18 13:05 |
| 7M95170.D | CAL BNA@196PP    | 10/08/18 13:29 |
| 7M95171.D | CAL BNA@160PP    | 10/08/18 13:53 |
| 7M95172.D | CAL BNA@120PP    | 10/08/18 14:16 |
| 7M95173.D | CAL BNA@80PPM    | 10/08/18 14:40 |
| 7M95174.D | CAL BNA@20PPM    | 10/08/18 15:03 |
| 7M95175.D | CAL BNA@2PPM     | 10/08/18 15:27 |
| 7M95176.D | CAL BNA@0.5PP    | 10/08/18 15:50 |
| 7M95177.D | CAL BNA@50PPM    | 10/08/18 16:13 |
| 7M95178.D | ICV BNA@50PPM    | 10/08/18 16:37 |
| 7M95179.D | OMB71379         | 10/08/18 17:00 |
| 7M95180.D | OMB71380         | 10/08/18 17:23 |
| 7M95181.D | AD06831-001      | 10/08/18 17:47 |
| 7M95182.D | AD06831-003      | 10/08/18 18:10 |
| 7M95183.D | AD06831-004      | 10/08/18 18:33 |
| 7M95184.D | AD06831-005      | 10/08/18 18:56 |
| 7M95185.D | AD06832-001      | 10/08/18 19:20 |
| 7M95186.D | AD06832-002      | 10/08/18 19:43 |
| 7M95187.D | AD06832-003      | 10/08/18 20:06 |
| 7M95188.D | AD06832-004      | 10/08/18 20:29 |
| 7M95189.D | AD06832-005      | 10/08/18 20:52 |
| 7M95190.D | 06832-005        | 10/08/18 21:15 |
| 7M95191.D | AD06832-006      | 10/08/18 21:38 |
| 7M95192.D | AD06832-004(MS)  | 10/08/18 22:01 |
| 7M95193.D | AD06832-004(MSD) | 10/08/18 22:24 |

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-08-18\  
 Data File : 7M95168.D  
 Acq On : 8 Oct 2018 12:40  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_7\MethodQt\7M\_1008.M  
 Title : @GCMS\_7,mg,625,8270  
 Last Update : Mon Oct 08 16:32:32 2018



Spectrum Information: Scan 1442

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 37.5      | 38048   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 44.4      | 45008   | PASS             |
| 70          | 69           | 0.00         | 2            | 1.5       | 676     | PASS             |
| 127         | 198          | 40           | 60           | 55.7      | 56512   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 101376  | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 7306    | PASS             |
| 275         | 198          | 10           | 30           | 20.2      | 20520   | PASS             |
| 365         | 198          | 1            | 100          | 1.9       | 1910    | PASS             |
| 441         | 443          | 0.01         | 100          | 71.6      | 6775    | PASS             |
| 442         | 198          | 40           | 100          | 44.9      | 45488   | PASS             |
| 443         | 442          | 17           | 23           | 20.8      | 9464    | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 9

Data File: 9M88300.D  
Analysis Date: 10/08/18 09:00  
Method: EPA 8270D

Tune Scan/Time Range: Scan 2729

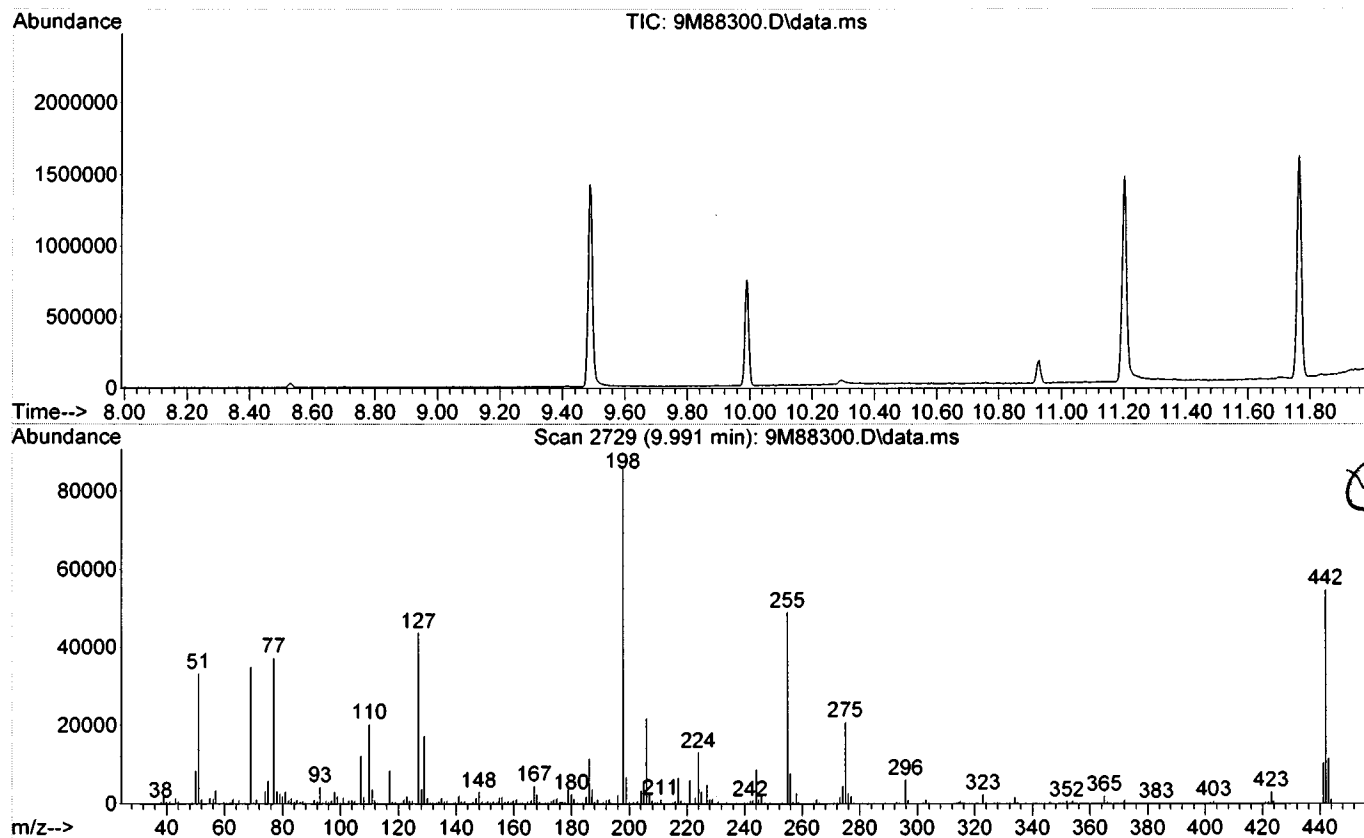
| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 38.5         | 33312        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.0          | 0            | PASS          |
| 69          | 198         | 0.00      | 100       | 40.6         | 35104        | PASS          |
| 70          | 69          | 0.00      | 2         | 1.1          | 399          | PASS          |
| 127         | 198         | 40        | 60        | 50.6         | 43800        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 86488        | PASS          |
| 199         | 198         | 5         | 9         | 7.9          | 6819         | PASS          |
| 275         | 198         | 10        | 30        | 24.2         | 20936        | PASS          |
| 365         | 198         | 1         | 100       | 2.4          | 2041         | PASS          |
| 441         | 443         | 0.01      | 100       | 90.6         | 10462        | PASS          |
| 442         | 198         | 40        | 100       | 63.4         | 54824        | PASS          |
| 443         | 442         | 17        | 23        | 21.1         | 11550        | PASS          |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 9M88301.D | CAL BNA@10PPM | 10/08/18 10:20 |
| 9M88302.D | CAL BNA@2PPM  | 10/08/18 10:42 |
| 9M88303.D | CAL BNA@196PP | 10/08/18 11:05 |
| 9M88304.D | CAL BNA@160PP | 10/08/18 11:29 |
| 9M88305.D | CAL BNA@120PP | 10/08/18 11:52 |
| 9M88306.D | CAL BNA@80PPM | 10/08/18 12:15 |
| 9M88307.D | CAL BNA@20PPM | 10/08/18 12:38 |
| 9M88308.D | CAL BNA@.5PPM | 10/08/18 13:02 |
| 9M88309.D | CAL BNA@50PPM | 10/08/18 13:26 |
| 9M88310.D | ICV BNA@50PPM | 10/08/18 13:50 |

Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-08-18\  
Data File : 9M88300.D  
Acq On : 8 Oct 2018 9:00  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_9\METHODQT\9M\_0823.M  
Title : @GCMS\_9,mg,625,8270  
Last Update : Thu Aug 23 13:21:38 2018



Spectrum Information: Scan 2729

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 38.5      | 33312   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 40.6      | 35104   | PASS             |
| 70          | 69           | 0.00         | 2            | 1.1       | 399     | PASS             |
| 127         | 198          | 40           | 60           | 50.6      | 43800   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 86488   | PASS             |
| 199         | 198          | 5            | 9            | 7.9       | 6819    | PASS             |
| 275         | 198          | 10           | 30           | 24.2      | 20936   | PASS             |
| 365         | 198          | 1            | 100          | 2.4       | 2041    | PASS             |
| 441         | 443          | 0.01         | 100          | 90.6      | 10462   | PASS             |
| 442         | 198          | 40           | 100          | 63.4      | 54824   | PASS             |
| 443         | 442          | 17           | 23           | 21.1      | 11550   | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 10

Data File: 10M71436.D  
Analysis Date: 10/19/18 09:05  
Method: EPA 8270D

Tune Scan/Time Range: Average of 10.060 to 10.071 min

| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 43.3         | 25080        | PASS          |
| 68          | 69          | 0.00      | 2         | 1.7          | 436          | PASS          |
| 69          | 198         | 0.00      | 100       | 44.8         | 25958        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.0          | 0            | PASS          |
| 127         | 198         | 40        | 60        | 53.5         | 30984        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.4          | 243          | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 57893        | PASS          |
| 199         | 198         | 5         | 9         | 6.8          | 3942         | PASS          |
| 275         | 198         | 10        | 30        | 20.5         | 11856        | PASS          |
| 365         | 198         | 1         | 100       | 3.5          | 2007         | PASS          |
| 441         | 443         | 0.01      | 100       | 68.5         | 4393         | PASS          |
| 442         | 198         | 40        | 100       | 53.0         | 30661        | PASS          |
| 443         | 442         | 17        | 23        | 20.9         | 6414         | PASS          |

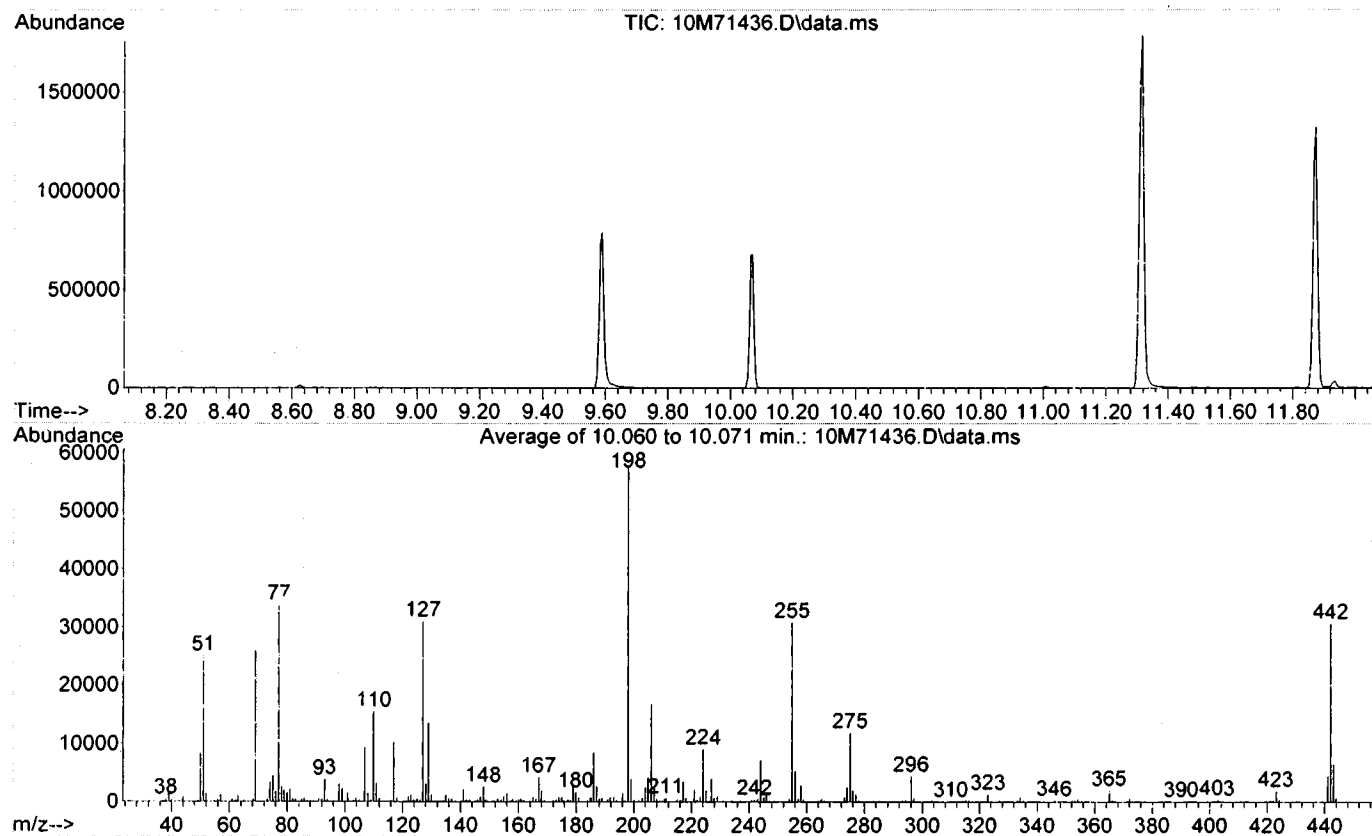
| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 10M71437.D | CAL BNA@50PPM    | 10/19/18 09:35 |
| 10M71438.D | WMB71471         | 10/19/18 10:13 |
| 10M71439.D | WMB71471(MS)     | 10/19/18 10:35 |
| 10M71440.D | SMB71470         | 10/19/18 10:58 |
| 10M71441.D | AD07093-001(T)   | 10/19/18 11:20 |
| 10M71442.D | AD07093-001(T)(M | 10/19/18 11:42 |
| 10M71443.D | AD07093-001(T)(M | 10/19/18 12:04 |
| 10M71444.D | SMB71470         | 10/19/18 12:26 |
| 10M71445.D | AD07121-001      | 10/19/18 12:48 |
| 10M71446.D | WMB71471         | 10/19/18 13:10 |
| 10M71447.D | AD07121-002      | 10/19/18 13:32 |
| 10M71448.D | AD07121-003      | 10/19/18 13:55 |
| 10M71449.D | AD07121-004      | 10/19/18 14:17 |
| 10M71450.D | WMB71479         | 10/19/18 14:39 |
| 10M71451.D | AD07121-006      | 10/19/18 15:01 |
| 10M71452.D | AD07121-007      | 10/19/18 15:23 |
| 10M71453.D | AD07121-008      | 10/19/18 15:45 |
| 10M71454.D | AD07037-001(10X) | 10/19/18 16:08 |
| 10M71455.D | AD07037-002(20X) | 10/19/18 16:30 |
| 10M71456.D | SMB71480         | 10/19/18 17:24 |
| 10M71457.D | SMB71481         | 10/19/18 17:46 |
| 10M71458.D | SMB71480(MS)     | 10/19/18 18:08 |
| 10M71459.D | AD07136-003      | 10/19/18 18:30 |
| 10M71460.D | AD07136-003(MS)  | 10/19/18 18:52 |
| 10M71461.D | AD07136-003(MSD  | 10/19/18 19:14 |
| 10M71462.D | AD07185-007      | 10/19/18 19:37 |



Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-19-18\  
Data File : 10M71436.D  
Acq On : 19 Oct 2018 9:05  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_10\MethodQt\10M\_1008.M  
Title : @GCMS\_10,mg,625,8270  
Last Update : Mon Oct 08 12:23:19 2018



Spectrum Information: Average of 10.060 to 10.071 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 43.3      | 25080   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.7       | 436     | PASS             |
| 69          | 198          | 0.00         | 100          | 44.8      | 25958   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 53.5      | 30984   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.4       | 243     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 57893   | PASS             |
| 199         | 198          | 5            | 9            | 6.8       | 3942    | PASS             |
| 275         | 198          | 10           | 30           | 20.5      | 11856   | PASS             |
| 365         | 198          | 1            | 100          | 3.5       | 2007    | PASS             |
| 441         | 443          | 0.01         | 100          | 68.5      | 4393    | PASS             |
| 442         | 198          | 40           | 100          | 53.0      | 30661   | PASS             |
| 443         | 442          | 17           | 23           | 20.9      | 6414    | PASS             |

## Form 5

8101509 0527

Tune Name: CAL DFTPP

Data File: 10M71436.D

Instrument: GCMS 10

Analysis Date: 10/19/18 09:05

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.060 to 10.071 min

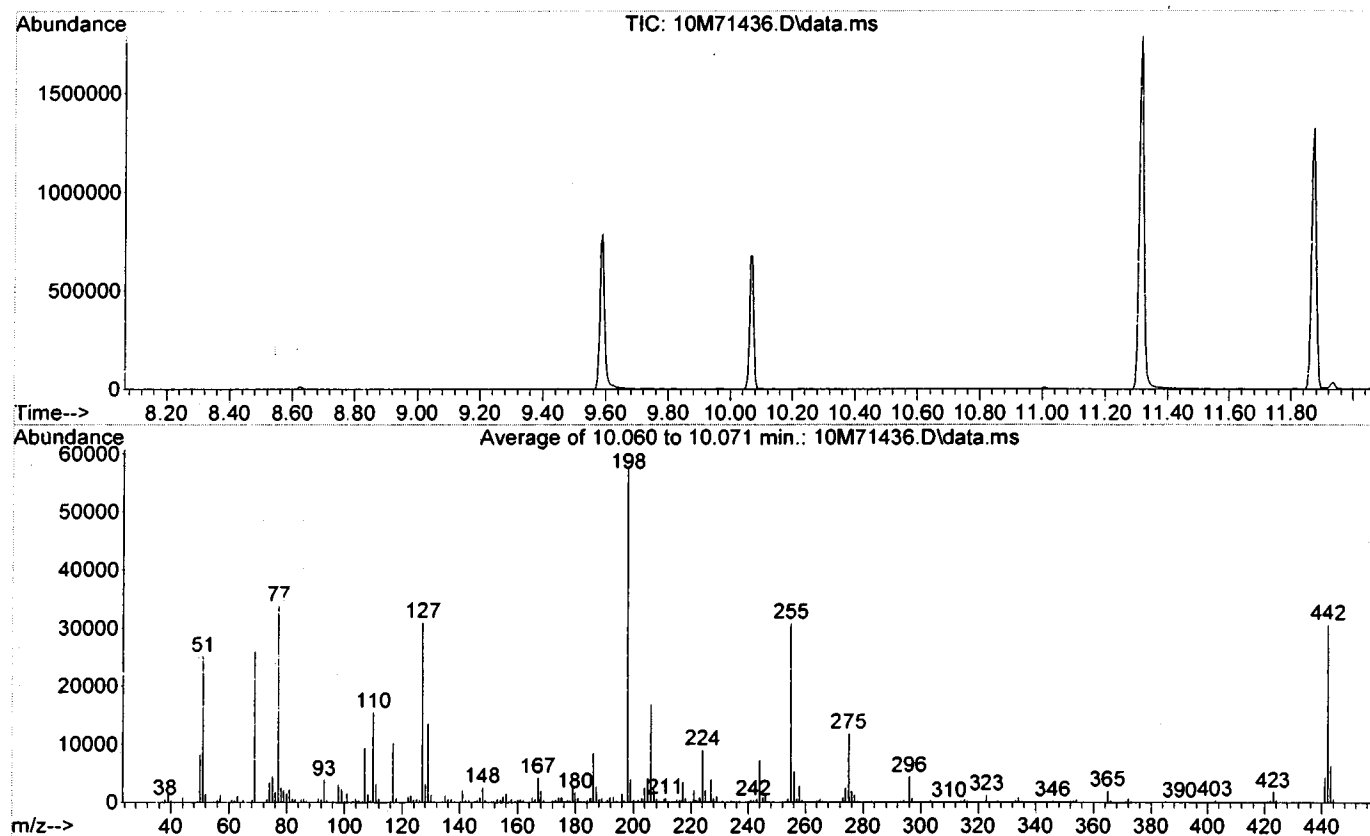
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 43.3  | 25080 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.7   | 436   | PASS  |
| 69   | 198  | 0.00 | 100 | 44.8  | 25958 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 127  | 198  | 40   | 60  | 53.5  | 30984 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.4   | 243   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 57893 | PASS  |
| 199  | 198  | 5    | 9   | 6.8   | 3942  | PASS  |
| 275  | 198  | 10   | 30  | 20.5  | 11856 | PASS  |
| 365  | 198  | 1    | 100 | 3.5   | 2007  | PASS  |
| 441  | 443  | 0.01 | 100 | 68.5  | 4393  | PASS  |
| 442  | 198  | 40   | 100 | 53.0  | 30661 | PASS  |
| 443  | 442  | 17   | 23  | 20.9  | 6414  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 10M71437.D | CAL BNA@50PPM     | 10/19/18 09:35 |
| 10M71438.D | WMB71471          | 10/19/18 10:13 |
| 10M71439.D | WMB71471(MS)      | 10/19/18 10:35 |
| 10M71440.D | SMB71470          | 10/19/18 10:58 |
| 10M71441.D | AD07093-001(T)    | 10/19/18 11:20 |
| 10M71442.D | AD07093-001(T)(M) | 10/19/18 11:42 |
| 10M71443.D | AD07093-001(T)(M) | 10/19/18 12:04 |
| 10M71444.D | SMB71470          | 10/19/18 12:26 |
| 10M71445.D | AD07121-001       | 10/19/18 12:48 |
| 10M71446.D | WMB71471          | 10/19/18 13:10 |
| 10M71447.D | AD07121-002       | 10/19/18 13:32 |
| 10M71448.D | AD07121-003       | 10/19/18 13:55 |
| 10M71449.D | AD07121-004       | 10/19/18 14:17 |
| 10M71450.D | WMB71479          | 10/19/18 14:39 |
| 10M71451.D | AD07121-006       | 10/19/18 15:01 |
| 10M71452.D | AD07121-007       | 10/19/18 15:23 |
| 10M71453.D | AD07121-008       | 10/19/18 15:45 |
| 10M71454.D | AD07037-001(10X)  | 10/19/18 16:08 |
| 10M71455.D | AD07037-002(20X)  | 10/19/18 16:30 |
| 10M71456.D | SMB71480          | 10/19/18 17:24 |
| 10M71457.D | SMB71481          | 10/19/18 17:46 |
| 10M71458.D | SMB71480(MS)      | 10/19/18 18:08 |
| 10M71459.D | AD07136-003       | 10/19/18 18:30 |
| 10M71460.D | AD07136-003(MS)   | 10/19/18 18:52 |
| 10M71461.D | AD07136-003(MSD)  | 10/19/18 19:14 |
| 10M71462.D | AD07185-007       | 10/19/18 19:37 |

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-19-18\  
 Data File : 10M71436.D  
 Acq On : 19 Oct 2018 9:05  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_10\MethodQt\10M\_1008.M  
 Title : @GCMS\_10,mg,625,8270  
 Last Update : Mon Oct 08 12:23:19 2018



Spectrum Information: Average of 10.060 to 10.071 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 43.3      | 25080   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.7       | 436     | PASS             |
| 69          | 198          | 0.00         | 100          | 44.8      | 25958   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 53.5      | 30984   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.4       | 243     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 57893   | PASS             |
| 199         | 198          | 5            | 9            | 6.8       | 3942    | PASS             |
| 275         | 198          | 10           | 30           | 20.5      | 11856   | PASS             |
| 365         | 198          | 1            | 100          | 3.5       | 2007    | PASS             |
| 441         | 443          | 0.01         | 100          | 68.5      | 4393    | PASS             |
| 442         | 198          | 40           | 100          | 53.0      | 30661   | PASS             |
| 443         | 442          | 17           | 23           | 20.9      | 6414    | PASS             |

## Form 5

8101509 0529

Tune Name: CAL DFTPP

Data File: 5M105870.D

Instrument: GCMS 5

Analysis Date: 10/19/18 09:08

Method: EPA 625.1

Tune Scan/Time Range: Scan 1406

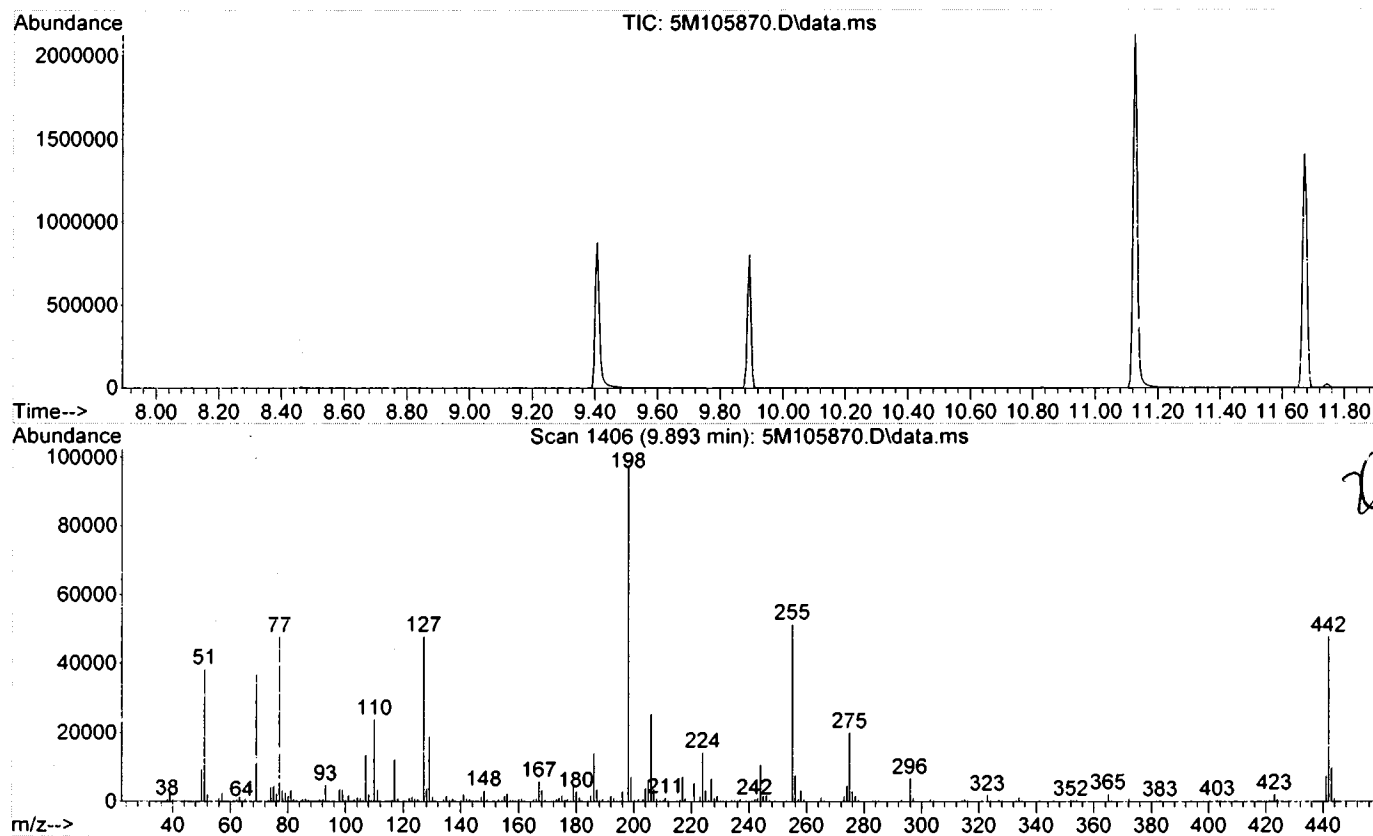
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 39.3  | 38408 | PASS  |
| 68   | 69   | 0.00 | 2   | 0.0   | 0     | PASS  |
| 69   | 198  | 0.00 | 100 | 37.8  | 36904 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 155   | PASS  |
| 127  | 198  | 40   | 60  | 49.1  | 47968 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.0   | 0     | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 97704 | PASS  |
| 199  | 198  | 5    | 9   | 7.4   | 7230  | PASS  |
| 275  | 198  | 10   | 30  | 20.5  | 20024 | PASS  |
| 365  | 198  | 1    | 100 | 2.3   | 2243  | PASS  |
| 441  | 443  | 0.01 | 100 | 75.7  | 7521  | PASS  |
| 442  | 198  | 40   | 100 | 49.0  | 47904 | PASS  |
| 443  | 442  | 17   | 23  | 20.7  | 9932  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 5M105871.D | CAL BNA@50PPM    | 10/19/18 09:44 |
| 5M105872.D | WMB71471         | 10/19/18 10:48 |
| 5M105873.D | AD07120-001      | 10/19/18 11:12 |
| 5M105874.D | AD07120-002      | 10/19/18 11:35 |
| 5M105875.D | AD07115-001      | 10/19/18 11:58 |
| 5M105876.D | AD07115-002      | 10/19/18 12:21 |
| 5M105877.D | AD07118-001      | 10/19/18 12:44 |
| 5M105878.D | AD07118-003      | 10/19/18 13:08 |
| 5M105879.D | AD07118-005      | 10/19/18 13:31 |
| 5M105880.D | AD07118-007      | 10/19/18 13:55 |
| 5M105881.D | WMB71479         | 10/19/18 14:23 |
| 5M105882.D | AD07072-007(R)   | 10/19/18 14:46 |
| 5M105883.D | AD07081-015(R)   | 10/19/18 16:02 |
| 5M105884.D | AD07081-017(R)   | 10/19/18 16:25 |
| 5M105885.D | AD07113-001(R)   | 10/19/18 16:48 |
| 5M105886.D | AD07113-001(5X)( | 10/19/18 17:11 |
| 5M105887.D | SMB71481         | 10/19/18 17:34 |
| 5M105888.D | SMB71480         | 10/19/18 17:57 |
| 5M105889.D | SMB71481(MS)     | 10/19/18 18:21 |
| 5M105890.D | AD07178-001      | 10/19/18 18:43 |
| 5M105891.D | AD07178-001(MS)  | 10/19/18 19:06 |
| 5M105892.D | AD07178-001(MSD) | 10/19/18 19:29 |
| 5M105893.D | AD07178-002      | 10/19/18 19:52 |
| 5M105894.D | AD07113-001(R)   | 10/19/18 20:15 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-19-18\  
Data File : 5M105870.D  
Acq On : 19 Oct 2018 9:08  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_1008.M  
Title : @GCMS\_5,mg,625,8270  
Last Update : Mon Oct 08 13:01:42 2018



Spectrum Information: Scan 1406

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 39.3      | 38408   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 37.8      | 36904   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.4       | 155     | PASS             |
| 127         | 198          | 40           | 60           | 49.1      | 47968   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 97704   | PASS             |
| 199         | 198          | 5            | 9            | 7.4       | 7230    | PASS             |
| 275         | 198          | 10           | 30           | 20.5      | 20024   | PASS             |
| 365         | 198          | 1            | 100          | 2.3       | 2243    | PASS             |
| 441         | 443          | 0.01         | 100          | 75.7      | 7521    | PASS             |
| 442         | 198          | 40           | 100          | 49.0      | 47904   | PASS             |
| 443         | 442          | 17           | 23           | 20.7      | 9932    | PASS             |

## Form 5

Tune Name: CAL DFTPP

Data File: 7M95304.D

Instrument: GCMS 7

Analysis Date: 10/19/18 09:03

Method: EPA 625.1

Tune Scan/Time Range: Scan 1438

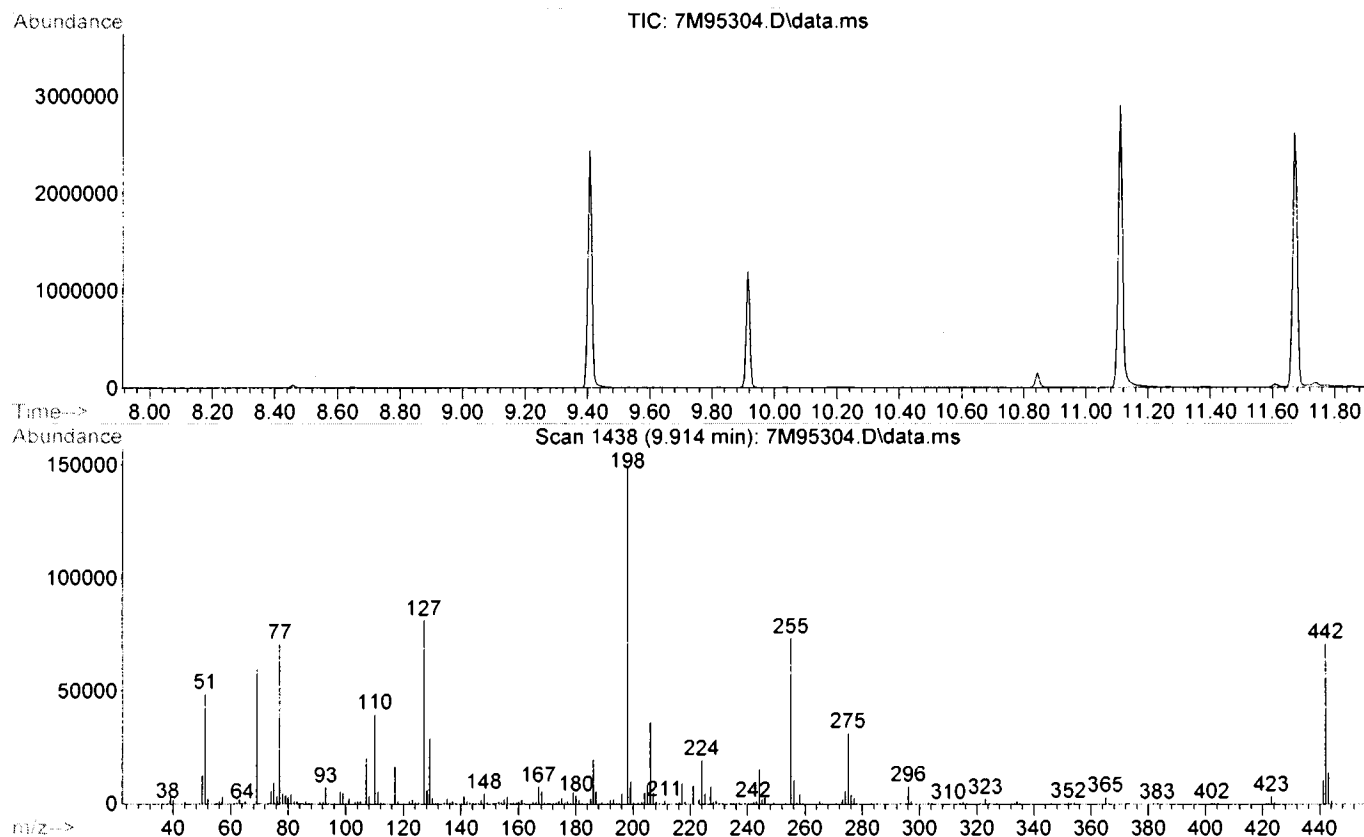
| Time Scan/Time Range/Scan 1980 |      |      |     |       |        |       |  |
|--------------------------------|------|------|-----|-------|--------|-------|--|
| Tgt                            | Rel  | Lo   | Hi  | Rel   | Raw    | Pass/ |  |
| Mass                           | Mass | Lim  |     | Abund | Abund  | Fail  |  |
| 51                             | 198  | 30   | 60  | 32.7  | 49008  | PASS  |  |
| 68                             | 69   | 0.00 | 2   | 0.0   | 0      | PASS  |  |
| 69                             | 198  | 0.00 | 100 | 40.0  | 59872  | PASS  |  |
| 70                             | 69   | 0.00 | 2   | 0.5   | 286    | PASS  |  |
| 127                            | 198  | 40   | 60  | 54.4  | 81440  | PASS  |  |
| 197                            | 198  | 0.00 | 1   | 0.0   | 0      | PASS  |  |
| 198                            | 198  | 100  | 100 | 100.0 | 149696 | PASS  |  |
| 199                            | 198  | 5    | 9   | 6.8   | 10117  | PASS  |  |
| 275                            | 198  | 10   | 30  | 21.2  | 31784  | PASS  |  |
| 365                            | 198  | 1    | 100 | 2.2   | 3289   | PASS  |  |
| 441                            | 443  | 0.01 | 100 | 75.7  | 10642  | PASS  |  |
| 442                            | 198  | 40   | 100 | 47.6  | 71184  | PASS  |  |
| 443                            | 442  | 17   | 23  | 19.7  | 14052  | PASS  |  |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 7M95305.D | CAL BNA@50PPM | 10/19/18 09:41 |
| 7M95306.D | WMB71479(MS)  | 10/19/18 14:26 |
| 7M95307.D | WMB71479      | 10/19/18 14:49 |

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-19-18\  
 Data File : 7M95304.D  
 Acq On : 19 Oct 2018 9:03  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_7\MethodQt\7M\_1008.M  
 Title : @GCMS\_7,mg,625,8270  
 Last Update : Mon Oct 08 16:32:32 2018



Spectrum Information: Scan 1438

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 32.7      | 49008   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 40.0      | 59872   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.5       | 286     | PASS             |
| 127         | 198          | 40           | 60           | 54.4      | 81440   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 149696  | PASS             |
| 199         | 198          | 5            | 9            | 6.8       | 10117   | PASS             |
| 275         | 198          | 10           | 30           | 21.2      | 31784   | PASS             |
| 365         | 198          | 1            | 100          | 2.2       | 3289    | PASS             |
| 441         | 443          | 0.01         | 100          | 75.7      | 10642   | PASS             |
| 442         | 198          | 40           | 100          | 47.6      | 71184   | PASS             |
| 443         | 442          | 17           | 23           | 19.7      | 14052   | PASS             |

*Handwritten signature*

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 9

Data File: 9M88659.D  
Analysis Date: 10/19/18 15:42  
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.983 to 9.994 min

| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 47.2         | 26370        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.6          | 145          | PASS          |
| 69          | 198         | 0.00      | 100       | 45.0         | 25114        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.6          | 141          | PASS          |
| 127         | 198         | 40        | 60        | 54.5         | 30442        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 55818        | PASS          |
| 199         | 198         | 5         | 9         | 7.3          | 4061         | PASS          |
| 275         | 198         | 10        | 30        | 24.8         | 13844        | PASS          |
| 365         | 198         | 1         | 100       | 3.3          | 1855         | PASS          |
| 441         | 443         | 0.01      | 100       | 16.7         | 1212         | PASS          |
| 442         | 198         | 40        | 100       | 58.4         | 32579        | PASS          |
| 443         | 442         | 17        | 23        | 22.2         | 7246         | PASS          |

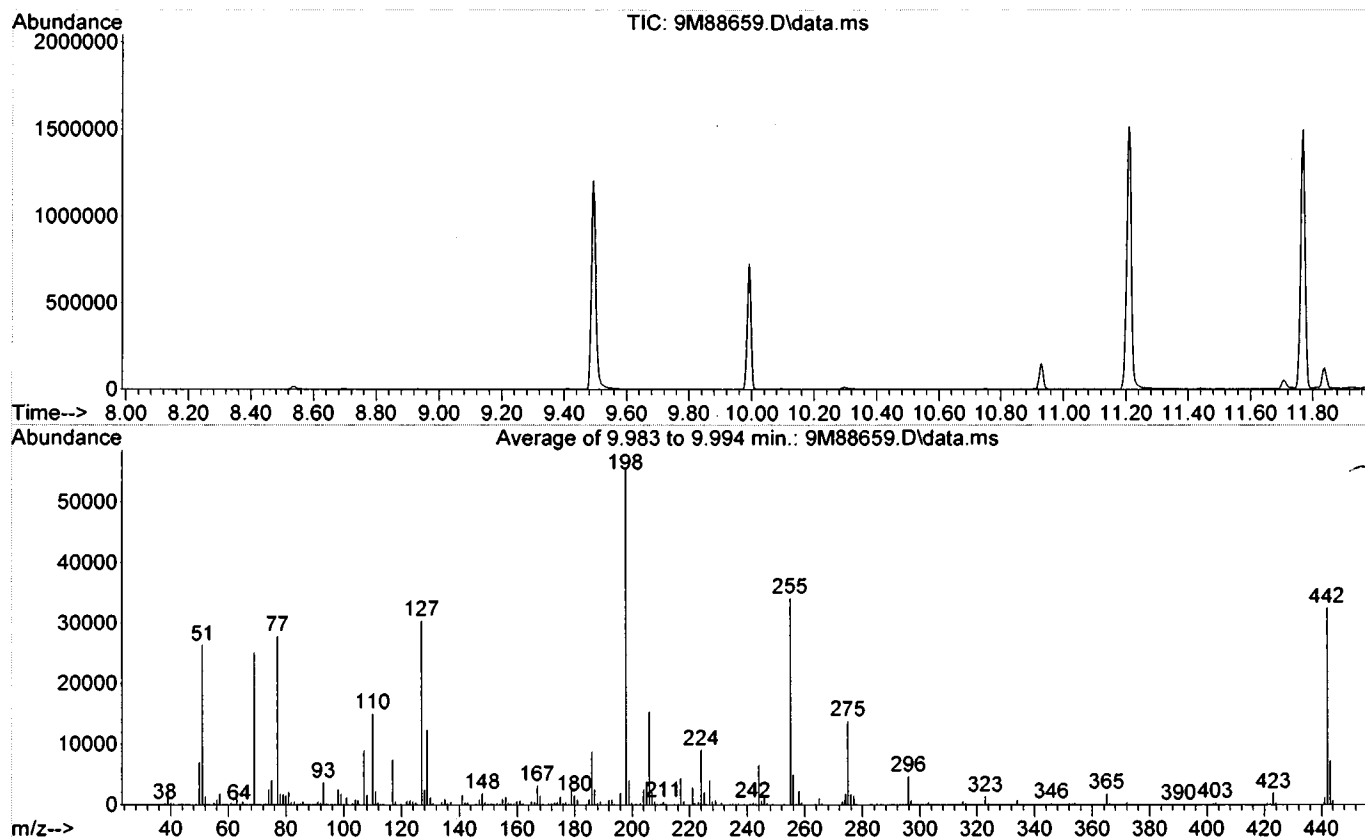
| Data File | Sample Number    | Analysis Date: |
|-----------|------------------|----------------|
| 9M88660.D | CAL BNA@50PPM    | 10/19/18 16:02 |
| 9M88661.D | AD07079-016      | 10/19/18 16:43 |
| 9M88662.D | AD07079-017      | 10/19/18 17:06 |
| 9M88663.D | AD07116-005      | 10/19/18 17:30 |
| 9M88664.D | AD07116-003      | 10/19/18 17:52 |
| 9M88665.D | SMB71480         | 10/19/18 18:17 |
| 9M88666.D | SMB71481         | 10/19/18 18:40 |
| 9M88667.D | AD07116-001      | 10/19/18 19:03 |
| 9M88668.D | AD07116-002      | 10/19/18 19:27 |
| 9M88669.D | AD07116-004      | 10/19/18 19:50 |
| 9M88670.D | AD07079-013(3X)  | 10/19/18 20:13 |
| 9M88671.D | AD07109-002      | 10/19/18 20:37 |
| 9M88672.D | AD07079-004      | 10/19/18 21:00 |
| 9M88673.D | AD07079-002(3X)  | 10/19/18 21:24 |
| 9M88674.D | AD07079-003(3X)  | 10/19/18 21:47 |
| 9M88675.D | 07131-001        | 10/19/18 22:10 |
| 9M88676.D | AD07136-001      | 10/19/18 22:34 |
| 9M88677.D | AD07136-002      | 10/19/18 22:57 |
| 9M88678.D | AD07136-004      | 10/19/18 23:20 |
| 9M88679.D | AD07159-001      | 10/19/18 23:44 |
| 9M88680.D | AD07161-002      | 10/20/18 00:07 |
| 9M88681.D | AD07161-004      | 10/20/18 00:31 |
| 9M88682.D | AD07161-006      | 10/20/18 00:54 |
| 9M88683.D | AD07161-009      | 10/20/18 01:17 |
| 9M88684.D | AD07177-001      | 10/20/18 01:41 |
| 9M88685.D | AD07185-002      | 10/20/18 02:05 |
| 9M88686.D | AD07185-004      | 10/20/18 02:28 |
| 9M88687.D | AD07185-006      | 10/20/18 02:51 |
| 9M88688.D | AD07185-001(3X)  | 10/20/18 03:15 |
| 9M88689.D | AD07185-003(3X)  | 10/20/18 03:38 |
| 9M88690.D | AD07185-005(3X)  | 10/20/18 04:02 |
| 9M88691.D | AD07185-011(3X)  | 10/20/18 04:25 |
| 9M88692.D | AD07152-001(10X) | 10/20/18 04:49 |



Data Path : G:\GcMsData\2018\GCMS\_9\Data\10-1918\  
Data File : 9M88659.D  
Acq On : 19 Oct 2018 15:42  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_9\METHODQT\9M\_1008.M  
Title : @GCMS\_9,mg,625,8270  
Last Update : Mon Oct 08 13:43:31 2018



Spectrum Information: Average of 9.983 to 9.994 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 47.2      | 26370   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.6       | 145     | PASS             |
| 69          | 198          | 0.00         | 100          | 45.0      | 25114   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.6       | 141     | PASS             |
| 127         | 198          | 40           | 60           | 54.5      | 30442   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 55818   | PASS             |
| 199         | 198          | 5            | 9            | 7.3       | 4061    | PASS             |
| 275         | 198          | 10           | 30           | 24.8      | 13844   | PASS             |
| 365         | 198          | 1            | 100          | 3.3       | 1855    | PASS             |
| 441         | 443          | 0.01         | 100          | 16.7      | 1212    | PASS             |
| 442         | 198          | 40           | 100          | 58.4      | 32579   | PASS             |
| 443         | 442          | 17           | 23           | 22.2      | 7246    | PASS             |

Tune Name: CAL DFTPP  
Instrument: GCMS 5

Data File: 5M105895.D  
Analysis Date: 10/22/18 07:18  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.899 min

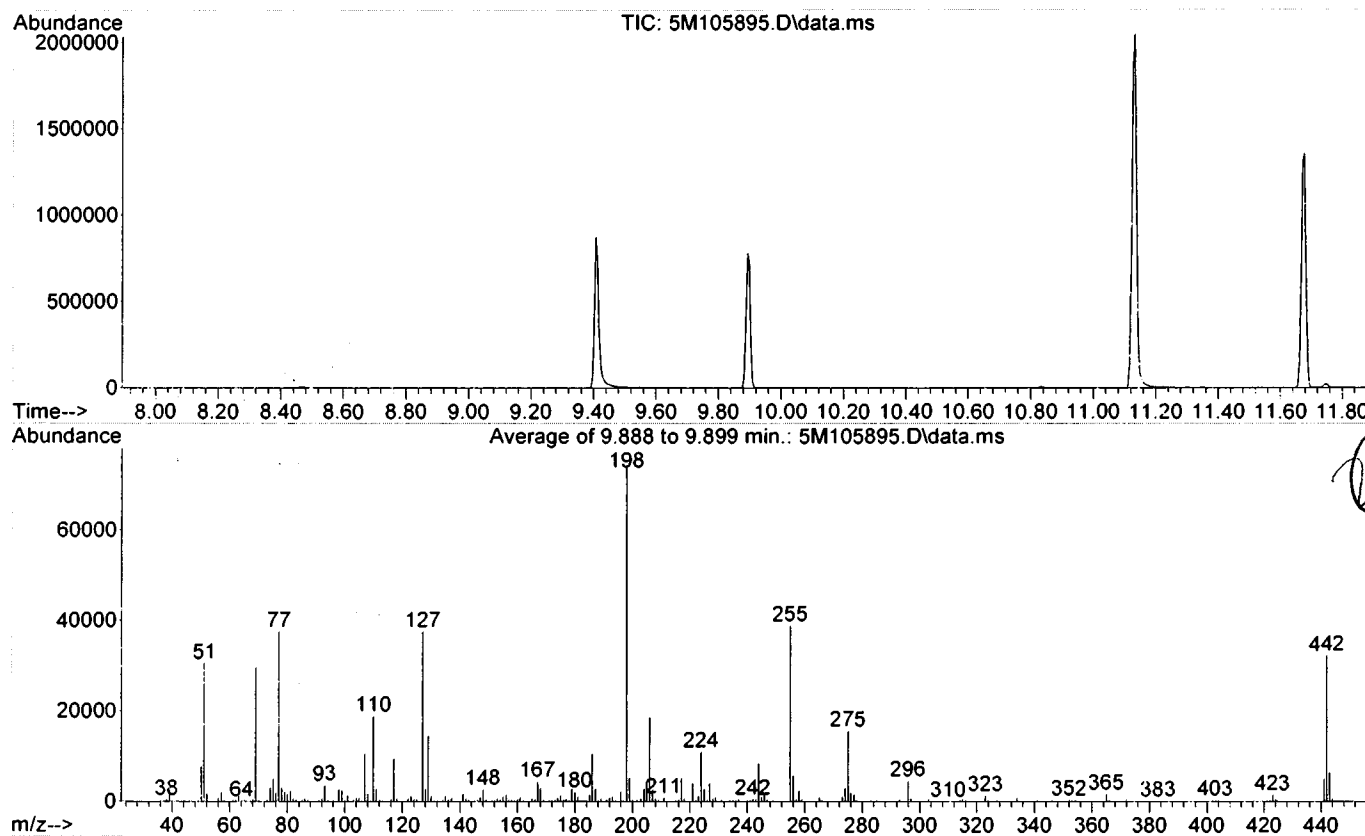
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 41.1  | 30557 | PASS  |
| 68   | 69   | 0.00 | 2   | 2.0   | 590   | PASS  |
| 69   | 198  | 0.00 | 100 | 39.7  | 29579 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 129   | PASS  |
| 127  | 198  | 40   | 60  | 50.4  | 37533 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.3   | 230   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 74424 | PASS  |
| 199  | 198  | 5    | 9   | 7.0   | 5229  | PASS  |
| 275  | 198  | 10   | 30  | 21.0  | 15595 | PASS  |
| 365  | 198  | 1    | 100 | 2.2   | 1660  | PASS  |
| 441  | 443  | 0.01 | 100 | 79.1  | 5128  | PASS  |
| 442  | 198  | 40   | 100 | 43.4  | 32304 | PASS  |
| 443  | 442  | 17   | 23  | 20.1  | 6483  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 5M105896.D | CAL BNA@50PPM     | 10/22/18 07:52 |
| 5M105897.D | AD06939-001(T)    | 10/22/18 08:35 |
| 5M105898.D | AD06939-001(T)(M  | 10/22/18 08:58 |
| 5M105899.D | AD06939-001(T)(M  | 10/22/18 09:21 |
| 5M105900.D | AD07133-001       | 10/22/18 09:44 |
| 5M105901.D | AD07133-002       | 10/22/18 10:07 |
| 5M105902.D | AD07131-001       | 10/22/18 10:31 |
| 5M105903.D | AD07131-002       | 10/22/18 10:54 |
| 5M105904.D | AD07142-001       | 10/22/18 11:17 |
| 5M105905.D | AD07137-001       | 10/22/18 11:41 |
| 5M105906.D | AD07137-003       | 10/22/18 12:04 |
| 5M105907.D | AD07137-005       | 10/22/18 12:28 |
| 5M105908.D | AD06821-001(T)    | 10/22/18 12:52 |
| 5M105909.D | AD06980-005(T)    | 10/22/18 13:15 |
| 5M105910.D | EF-SPLP V-289066  | 10/22/18 13:38 |
| 5M105911.D | WMB71496(MS)      | 10/22/18 14:01 |
| 5M105912.D | AD07157-001(T)    | 10/22/18 14:25 |
| 5M105913.D | WMB71496          | 10/22/18 14:49 |
| 5M105914.D | EF-1 V-289820(10/ | 10/22/18 15:12 |
| 5M105915.D | AD07157-001(T)(M  | 10/22/18 15:36 |
| 5M105916.D | AD07157-001(T)(M  | 10/22/18 15:59 |
| 5M105917.D | AD07132-001(T)    | 10/22/18 16:22 |
| 5M105918.D | AD06943-001(T)    | 10/22/18 16:45 |
| 5M105919.D | EF-1 V-289820(10/ | 10/22/18 17:08 |
| 5M105920.D | EF-1 V-289820(10/ | 10/22/18 17:31 |
| 5M105921.D | EF-SPLP V-289066  | 10/22/18 17:54 |
| 5M105922.D | EF-SPLP V-289066  | 10/22/18 18:18 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
Data File : 5M105895.D  
Acq On : 22 Oct 2018 7:18  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_1008.M  
Title : @GCMS\_5,mg,625,8270  
Last Update : Mon Oct 08 13:01:42 2018



Spectrum Information: Average of 9.888 to 9.899 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 41.1      | 30557   | PASS             |
| 68          | 69           | 0.00         | 2            | 2.0       | 590     | PASS             |
| 69          | 198          | 0.00         | 100          | 39.7      | 29579   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.4       | 129     | PASS             |
| 127         | 198          | 40           | 60           | 50.4      | 37533   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.3       | 230     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 74424   | PASS             |
| 199         | 198          | 5            | 9            | 7.0       | 5229    | PASS             |
| 275         | 198          | 10           | 30           | 21.0      | 15595   | PASS             |
| 365         | 198          | 1            | 100          | 2.2       | 1660    | PASS             |
| 441         | 443          | 0.01         | 100          | 79.1      | 5128    | PASS             |
| 442         | 198          | 40           | 100          | 43.4      | 32304   | PASS             |
| 443         | 442          | 17           | 23           | 20.1      | 6483    | PASS             |

## Form 5

8101509 0537

Tune Name: CAL DFTPP

Data File: 10M71463.D

Instrument: GCMS 10

Analysis Date: 10/22/18 07:18

Method: EPA 625.1

Tune Scan/Time Range: Average of 10.066 to 10.082 min

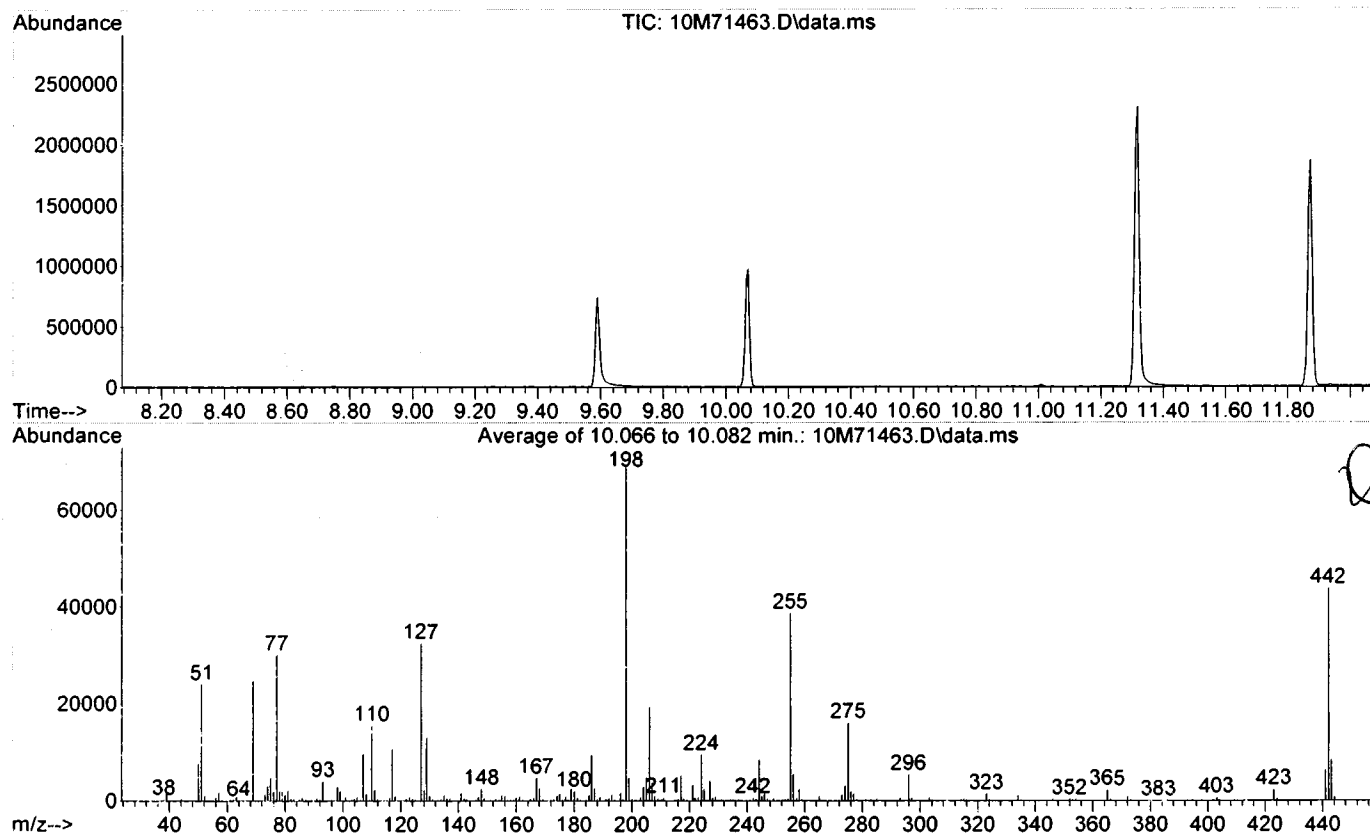
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 34.6  | 24066 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.2   | 290   | PASS  |
| 69   | 198  | 0.00 | 100 | 35.6  | 24732 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.4   | 91    | PASS  |
| 127  | 198  | 40   | 60  | 46.7  | 32459 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.6   | 395   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 69460 | PASS  |
| 199  | 198  | 5    | 9   | 6.9   | 4782  | PASS  |
| 275  | 198  | 10   | 30  | 23.1  | 16073 | PASS  |
| 365  | 198  | 1    | 100 | 3.2   | 2235  | PASS  |
| 441  | 443  | 0.01 | 100 | 75.3  | 6378  | PASS  |
| 442  | 198  | 40   | 100 | 63.1  | 43801 | PASS  |
| 443  | 442  | 17   | 23  | 19.3  | 8467  | PASS  |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 10M71464.D | CAL BNA@50PPM    | 10/22/18 07:45 |
| 10M71465.D | SMB71491(MS)     | 10/22/18 08:30 |
| 10M71466.D | SMB71491         | 10/22/18 08:52 |
| 10M71467.D | AD07224-001      | 10/22/18 09:14 |
| 10M71468.D | AD07224-001(MS)  | 10/22/18 09:36 |
| 10M71469.D | AD07224-001(MSD) | 10/22/18 09:59 |
| 10M71470.D | AD07224-002      | 10/22/18 10:21 |
| 10M71471.D | AD07224-003      | 10/22/18 10:43 |
| 10M71472.D | AD07224-004      | 10/22/18 11:05 |
| 10M71473.D | AD07190-009      | 10/22/18 11:27 |
| 10M71474.D | AD07190-011      | 10/22/18 11:50 |
| 10M71475.D | AD07189-001      | 10/22/18 12:12 |
| 10M71476.D | AD07143-001      | 10/22/18 12:34 |
| 10M71477.D | AD07143-002      | 10/22/18 12:56 |
| 10M71478.D | AD07143-003      | 10/22/18 13:18 |
| 10M71479.D | AD07143-004      | 10/22/18 13:41 |
| 10M71480.D | AD07157-002(T)   | 10/22/18 14:03 |
| 10M71481.D | AD07157-003(T)   | 10/22/18 14:25 |
| 10M71482.D | AD07157-004(T)   | 10/22/18 14:47 |
| 10M71483.D | AD07143-005      | 10/22/18 15:09 |
| 10M71484.D | WMB71496         | 10/22/18 15:31 |
| 10M71485.D | AD07022-012      | 10/22/18 15:53 |
| 10M71486.D | AD07118-003(R)   | 10/22/18 16:15 |
| 10M71487.D | AD07143-004      | 10/22/18 16:38 |

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-22-18\  
 Data File : 10M71463.D  
 Acq On : 22 Oct 2018 7:18  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_10\MethodQt\10M\_1008.M  
 Title : @GCMS\_10,mg,625,8270  
 Last Update : Mon Oct 08 12:23:19 2018



Spectrum Information: Average of 10.066 to 10.082 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 34.6      | 24066   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.2       | 290     | PASS             |
| 69          | 198          | 0.00         | 100          | 35.6      | 24732   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.4       | 91      | PASS             |
| 127         | 198          | 40           | 60           | 46.7      | 32459   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.6       | 395     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 69460   | PASS             |
| 199         | 198          | 5            | 9            | 6.9       | 4782    | PASS             |
| 275         | 198          | 10           | 30           | 23.1      | 16073   | PASS             |
| 365         | 198          | 1            | 100          | 3.2       | 2235    | PASS             |
| 441         | 443          | 0.01         | 100          | 75.3      | 6378    | PASS             |
| 442         | 198          | 40           | 100          | 63.1      | 43801   | PASS             |
| 443         | 442          | 17           | 23           | 19.3      | 8467    | PASS             |

## Form 5

Tune Name: CAL DFTPP

Data File: 5M105923.D

Instrument: GCMS 5

Analysis Date: 10/23/18 08:15

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.893 to 9.899 min

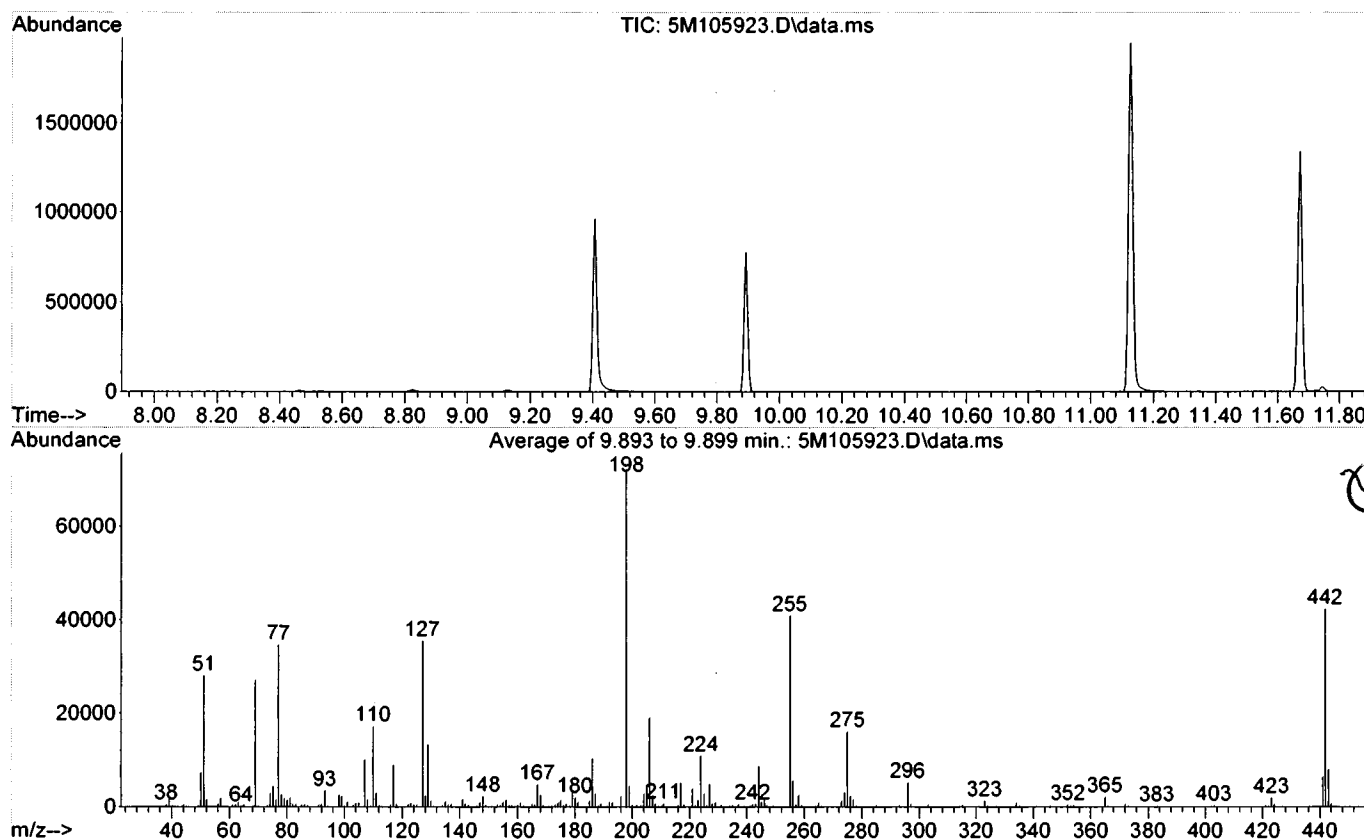
| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 38.7         | 27993        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.6          | 151          | PASS          |
| 69          | 198         | 0.00      | 100       | 37.6         | 27180        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.5          | 137          | PASS          |
| 127         | 198         | 40        | 60        | 49.0         | 35472        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 72356        | PASS          |
| 199         | 198         | 5         | 9         | 6.3          | 4594         | PASS          |
| 275         | 198         | 10        | 30        | 22.2         | 16051        | PASS          |
| 365         | 198         | 1         | 100       | 2.9          | 2126         | PASS          |
| 441         | 443         | 0.01      | 100       | 80.1         | 6460         | PASS          |
| 442         | 198         | 40        | 100       | 58.5         | 42328        | PASS          |
| 443         | 442         | 17        | 23        | 19.0         | 8061         | PASS          |

| Data File  | Sample Number    | Analysis Date: |
|------------|------------------|----------------|
| 5M105924.D | CAL BNA@50PPM    | 10/23/18 08:44 |
| 5M105925.D | WMB71497(MS)     | 10/23/18 09:35 |
| 5M105926.D | WMB71497         | 10/23/18 09:58 |
| 5M105927.D | AD07161-001      | 10/23/18 10:21 |
| 5M105928.D | AD07161-001(MS)  | 10/23/18 10:45 |
| 5M105929.D | AD07161-001(MSD) | 10/23/18 11:08 |
| 5M105930.D | AD07150-001      | 10/23/18 11:32 |
| 5M105931.D | AD07150-002      | 10/23/18 11:55 |
| 5M105932.D | AD07150-003      | 10/23/18 12:19 |
| 5M105933.D | AD07149-008      | 10/23/18 12:42 |
| 5M105934.D | WMB71497         | 10/23/18 13:29 |
| 5M105935.D | AD07142-003      | 10/23/18 13:53 |
| 5M105936.D | AD07142-004      | 10/23/18 14:17 |
| 5M105937.D | AD07249-006(T)   | 10/23/18 14:40 |
| 5M105938.D | AD07249-009(T)   | 10/23/18 15:03 |
| 5M105939.D | AD07249-010(T)   | 10/23/18 15:27 |
| 5M105940.D | AD07142-005      | 10/23/18 15:50 |
| 5M105941.D | AD07142-006      | 10/23/18 16:14 |
| 5M105942.D | AD07142-007      | 10/23/18 16:37 |
| 5M105943.D | AD07142-008      | 10/23/18 17:00 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-23-18\  
Data File : 5M105923.D  
Acq On : 23 Oct 2018 8:15  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_1008.M  
Title : @GCMS\_5,mg,625,8270  
Last Update : Mon Oct 08 13:01:42 2018



Spectrum Information: Average of 9.893 to 9.899 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 38.7      | 27993   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.6       | 151     | PASS             |
| 69          | 198          | 0.00         | 100          | 37.6      | 27180   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.5       | 137     | PASS             |
| 127         | 198          | 40           | 60           | 49.0      | 35472   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 72356   | PASS             |
| 199         | 198          | 5            | 9            | 6.3       | 4594    | PASS             |
| 275         | 198          | 10           | 30           | 22.2      | 16051   | PASS             |
| 365         | 198          | 1            | 100          | 2.9       | 2126    | PASS             |
| 441         | 443          | 0.01         | 100          | 80.1      | 6460    | PASS             |
| 442         | 198          | 40           | 100          | 58.5      | 42328   | PASS             |
| 443         | 442          | 17           | 23           | 19.0      | 8061    | PASS             |

## Form 5

Tune Name: CAL DFTPP

Data File: 7M95310.D

Instrument: GCMS 7

Analysis Date: 10/23/18 08:10

Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.919 min

| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 33.2         | 30462        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.1          | 39           | PASS          |
| 69          | 198         | 0.00      | 100       | 40.1         | 36795        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.5          | 197          | PASS          |
| 127         | 198         | 40        | 60        | 52.5         | 48205        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 91793        | PASS          |
| 199         | 198         | 5         | 9         | 6.7          | 6186         | PASS          |
| 275         | 198         | 10        | 30        | 21.5         | 19761        | PASS          |
| 365         | 198         | 1         | 100       | 2.1          | 1947         | PASS          |
| 441         | 443         | 0.01      | 100       | 78.7         | 8067         | PASS          |
| 442         | 198         | 40        | 100       | 57.9         | 53157        | PASS          |
| 443         | 442         | 17        | 23        | 19.3         | 10257        | PASS          |

Data File

Sample Number

Analysis Date:

7M95311.D

CAL BNA@50PPM

10/23/18 08:34

7M95312.D

WMB71479

10/23/18 11:31

7M95313.D

WMB71497

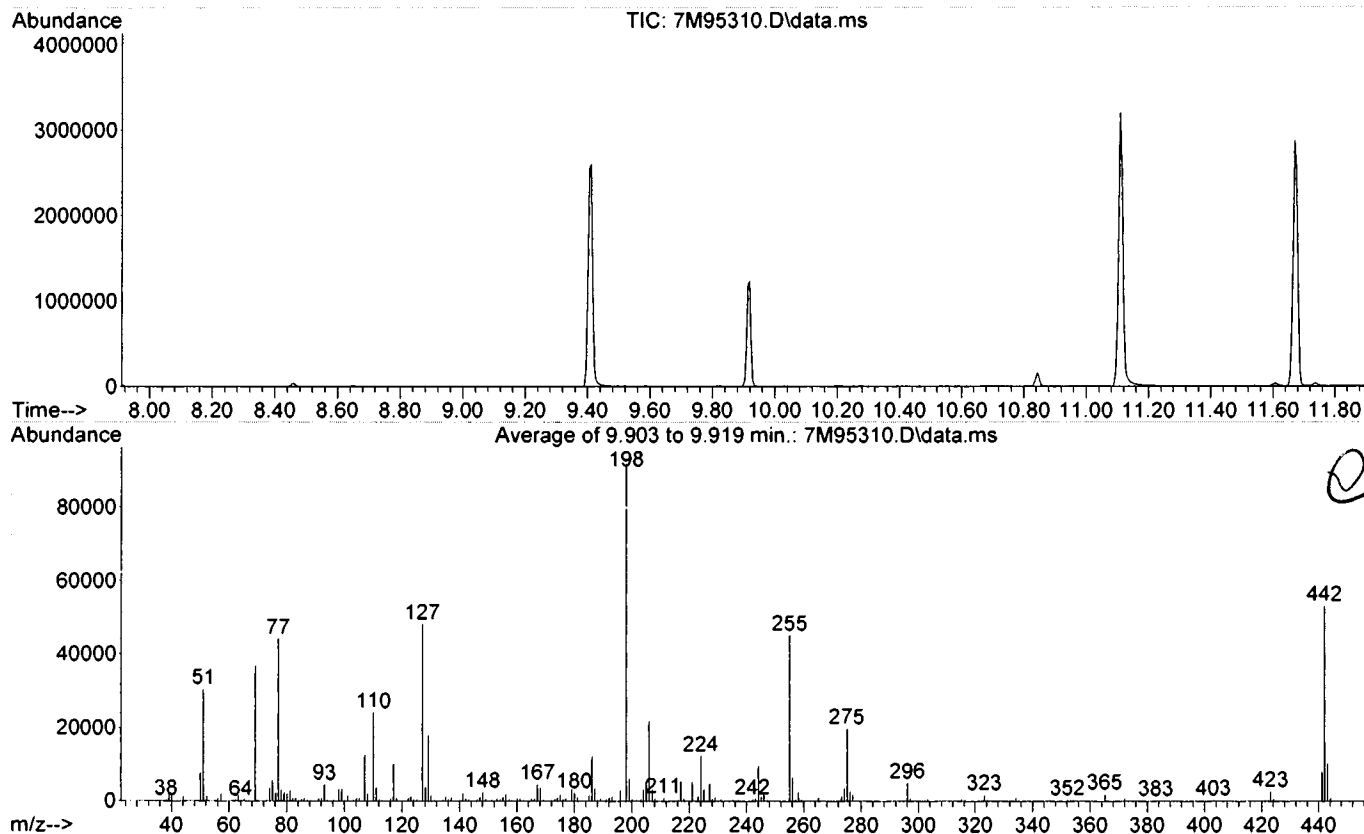
10/23/18 11:54



Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-23-18\  
Data File : 7M95310.D  
Acq On : 23 Oct 2018 8:10  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_7\MethodQt\7M\_1008.M  
Title : @GCMS\_7,mg,625,8270  
Last Update : Mon Oct 08 16:32:32 2018



Spectrum Information: Average of 9.903 to 9.919 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 33.2      | 30462   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.1       | 39      | PASS             |
| 69          | 198          | 0.00         | 100          | 40.1      | 36795   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.5       | 197     | PASS             |
| 127         | 198          | 40           | 60           | 52.5      | 48205   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 91793   | PASS             |
| 199         | 198          | 5            | 9            | 6.7       | 6186    | PASS             |
| 275         | 198          | 10           | 30           | 21.5      | 19761   | PASS             |
| 365         | 198          | 1            | 100          | 2.1       | 1947    | PASS             |
| 441         | 443          | 0.01         | 100          | 78.7      | 8067    | PASS             |
| 442         | 198          | 40           | 100          | 57.9      | 53157   | PASS             |
| 443         | 442          | 17           | 23           | 19.3      | 10257   | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 7

Data File: 7M95314.D  
Analysis Date: 10/24/18 08:10  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.914 min

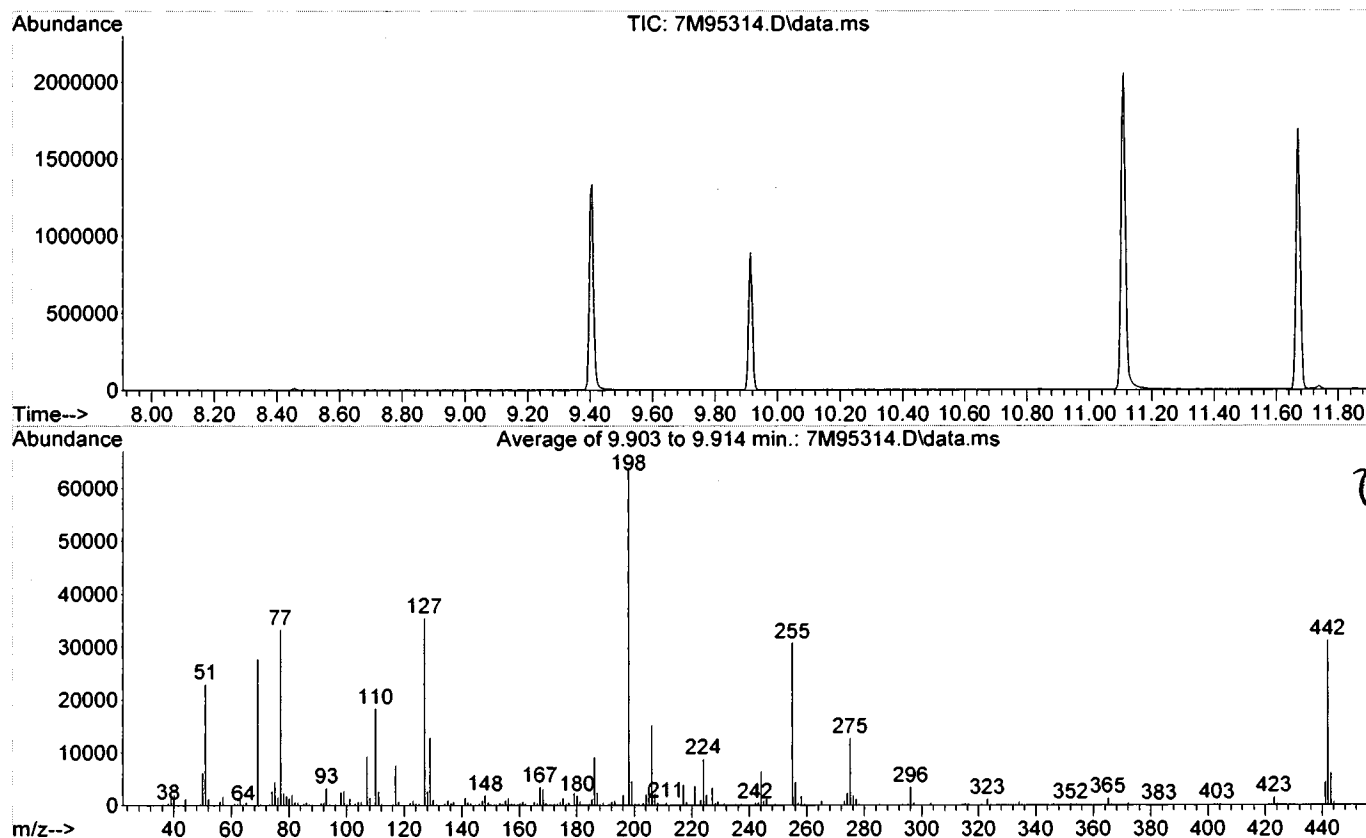
| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 36.0         | 23012        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.0          | 0            | PASS          |
| 69          | 198         | 0.00      | 100       | 43.4         | 27736        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.6          | 171          | PASS          |
| 127         | 198         | 40        | 60        | 55.6         | 35512        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 63895        | PASS          |
| 199         | 198         | 5         | 9         | 7.2          | 4597         | PASS          |
| 275         | 198         | 10        | 30        | 19.9         | 12705        | PASS          |
| 365         | 198         | 1         | 100       | 2.2          | 1395         | PASS          |
| 441         | 443         | 0.01      | 100       | 72.3         | 4336         | PASS          |
| 442         | 198         | 40        | 100       | 48.7         | 31109        | PASS          |
| 443         | 442         | 17        | 23        | 19.3         | 6000         | PASS          |

| Data File | Sample Number | Analysis Date: |
|-----------|---------------|----------------|
| 7M95315.D | CAL BNA@50PPM | 10/24/18 08:33 |
| 7M95316.D | AD07142-009   | 10/24/18 09:09 |
| 7M95317.D | AD07161-003   | 10/24/18 09:32 |
| 7M95318.D | AD07161-005   | 10/24/18 09:55 |
| 7M95319.D | AD07161-007   | 10/24/18 10:18 |
| 7M95320.D | AD07161-008   | 10/24/18 10:41 |
| 7M95321.D | AD07165-002   | 10/24/18 11:04 |
| 7M95322.D | AD07165-003   | 10/24/18 11:27 |
| 7M95323.D | AD07165-004   | 10/24/18 11:50 |
| 7M95324.D | AD07165-005   | 10/24/18 12:13 |
| 7M95325.D | AD07165-006   | 10/24/18 12:36 |
| 7M95326.D | AD07165-007   | 10/24/18 12:59 |
| 7M95327.D | AD07165-008   | 10/24/18 13:22 |
| 7M95328.D | SMB71506      | 10/24/18 13:45 |
| 7M95329.D | AD07165-009   | 10/24/18 14:08 |
| 7M95330.D | 07165-015     | 10/24/18 14:31 |
| 7M95331.D | AD07165-010   | 10/24/18 14:54 |
| 7M95332.D | AD07263-001   | 10/24/18 15:17 |
| 7M95333.D | AD07165-011   | 10/24/18 15:40 |
| 7M95334.D | AD07165-012   | 10/24/18 16:03 |
| 7M95335.D | AD07165-013   | 10/24/18 16:26 |
| 7M95336.D | AD07165-014   | 10/24/18 16:49 |
| 7M95337.D | AD07165-015   | 10/24/18 17:12 |
| 7M95338.D | AD07165-012   | 10/24/18 17:35 |

Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-24-18\  
 Data File : 7M95314.D  
 Acq On : 24 Oct 2018 8:10  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_7\MethodQt\7M\_1008.M  
 Title : @GCMS\_7,mg,625,8270  
 Last Update : Mon Oct 08 16:32:32 2018



Spectrum Information: Average of 9.903 to 9.914 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 36.0      | 23012   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 43.4      | 27736   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.6       | 171     | PASS             |
| 127         | 198          | 40           | 60           | 55.6      | 35512   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 63895   | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 4597    | PASS             |
| 275         | 198          | 10           | 30           | 19.9      | 12705   | PASS             |
| 365         | 198          | 1            | 100          | 2.2       | 1395    | PASS             |
| 441         | 443          | 0.01         | 100          | 72.3      | 4336    | PASS             |
| 442         | 198          | 40           | 100          | 48.7      | 31109   | PASS             |
| 443         | 442          | 17           | 23           | 19.3      | 6000    | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 5

Data File: 5M105966.D  
Analysis Date: 10/25/18 08:50  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.893 min

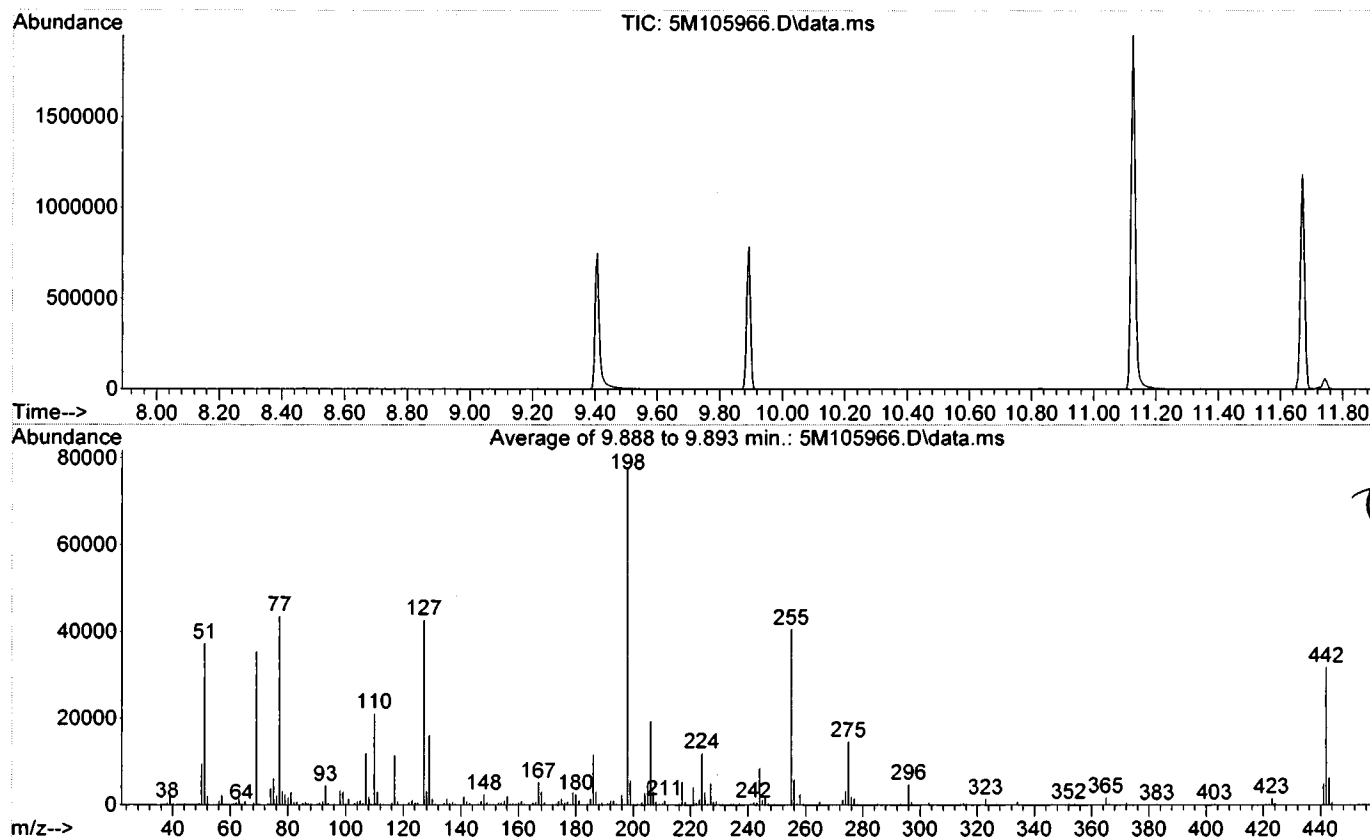
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 47.7  | 37196 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.8   | 622   | PASS  |
| 69   | 198  | 0.00 | 100 | 45.3  | 35304 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.5   | 181   | PASS  |
| 127  | 198  | 40   | 60  | 54.8  | 42720 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.3   | 246   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 77940 | PASS  |
| 199  | 198  | 5    | 9   | 7.2   | 5590  | PASS  |
| 275  | 198  | 10   | 30  | 18.8  | 14668 | PASS  |
| 365  | 198  | 1    | 100 | 2.3   | 1760  | PASS  |
| 441  | 443  | 0.01 | 100 | 80.4  | 5009  | PASS  |
| 442  | 198  | 40   | 100 | 40.8  | 31780 | PASS  |
| 443  | 442  | 17   | 23  | 19.6  | 6232  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 5M105967.D | CAL BNA@50PPM     | 10/25/18 09:19 |
| 5M105968.D | WMB71518(MS)      | 10/25/18 10:04 |
| 5M105969.D | WMB71518          | 10/25/18 10:28 |
| 5M105970.D | AD07188-009       | 10/25/18 10:59 |
| 5M105971.D | AD07185-008       | 10/25/18 11:22 |
| 5M105972.D | AD07252-002(T)    | 10/25/18 11:45 |
| 5M105973.D | EF-1 V-289820/10/ | 10/25/18 12:08 |
| 5M105974.D | AD07252-002(T)M   | 10/25/18 12:32 |
| 5M105975.D | AD07252-002(T)M   | 10/25/18 12:55 |
| 5M105976.D | AD07161-001(R)    | 10/25/18 13:19 |
| 5M105977.D | AD07142-003(R)    | 10/25/18 13:42 |
| 5M105978.D | AD07142-004(R)    | 10/25/18 14:05 |
| 5M105979.D | AD07294-001       | 10/25/18 14:29 |
| 5M105980.D | WMB71532          | 10/25/18 14:53 |
| 5M105981.D | AD07204-001       | 10/25/18 15:16 |
| 5M105982.D | AD07205-001       | 10/25/18 15:39 |
| 5M105983.D | AD07180-001       | 10/25/18 16:03 |
| 5M105984.D | AD07180-002       | 10/25/18 16:26 |
| 5M105985.D | AD07186-009       | 10/25/18 16:50 |
| 5M105986.D | AD07207-009       | 10/25/18 17:13 |
| 5M105987.D | AD07212-001       | 10/25/18 17:37 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-25-18\  
 Data File : 5M105966.D  
 Acq On : 25 Oct 2018 8:50  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_1008.M  
 Title : @GCMS\_5,mg,625,8270  
 Last Update : Mon Oct 08 13:01:42 2018



Spectrum Information: Average of 9.888 to 9.893 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 47.7      | 37196   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.8       | 622     | PASS             |
| 69          | 198          | 0.00         | 100          | 45.3      | 35304   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.5       | 181     | PASS             |
| 127         | 198          | 40           | 60           | 54.8      | 42720   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.3       | 246     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 77940   | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 5590    | PASS             |
| 275         | 198          | 10           | 30           | 18.8      | 14668   | PASS             |
| 365         | 198          | 1            | 100          | 2.3       | 1760    | PASS             |
| 441         | 443          | 0.01         | 100          | 80.4      | 5009    | PASS             |
| 442         | 198          | 40           | 100          | 40.8      | 31780   | PASS             |
| 443         | 442          | 17           | 23           | 19.6      | 6232    | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 5

Data File: 5M105988.D  
Analysis Date: 10/26/18 08:09  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.888 to 9.893 min

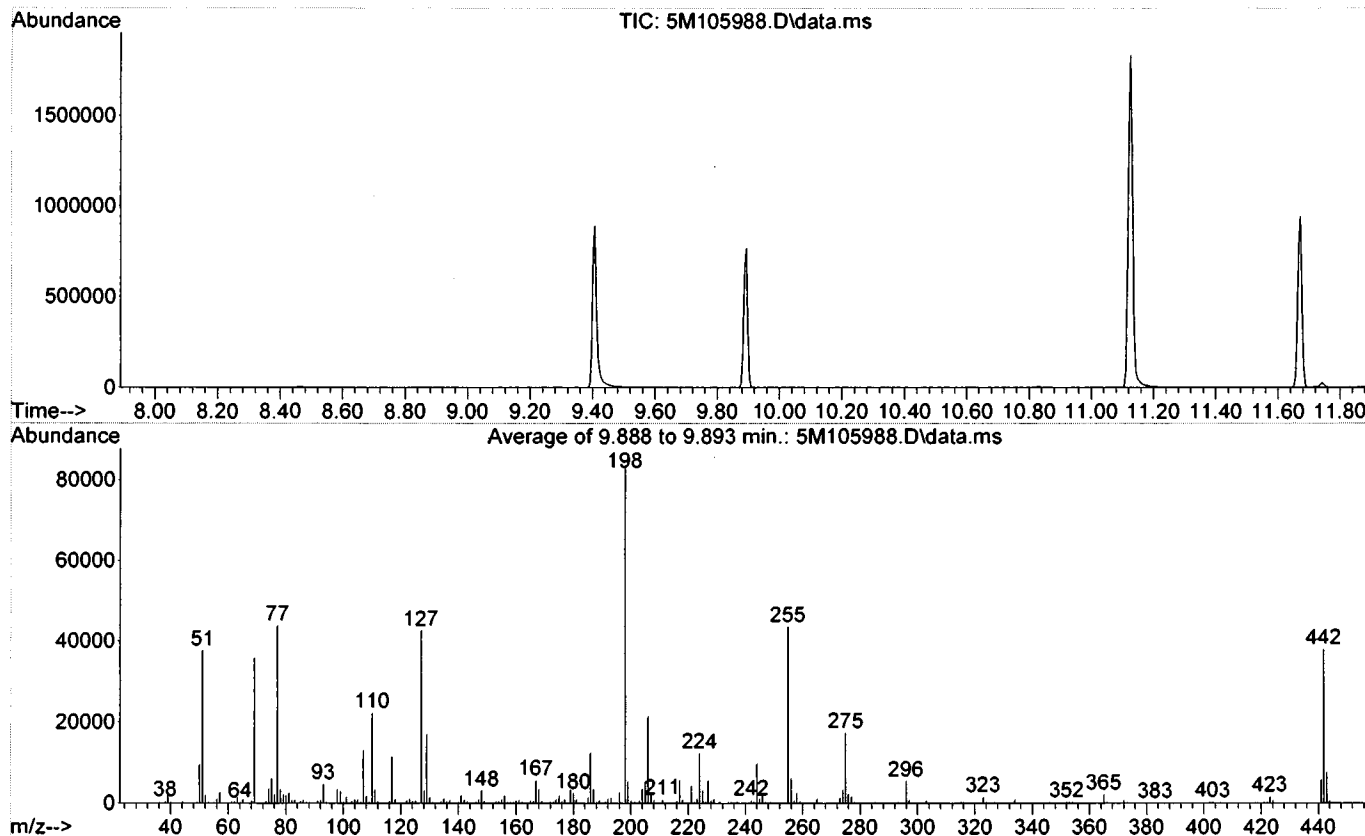
| Tgt  | Rel  | Lo   | Hi  | Rel   | Raw   | Pass/ |
|------|------|------|-----|-------|-------|-------|
| Mass | Mass | Lim  | Lim | Abund | Abund | Fail  |
| 51   | 198  | 30   | 60  | 45.1  | 37712 | PASS  |
| 68   | 69   | 0.00 | 2   | 1.8   | 629   | PASS  |
| 69   | 198  | 0.00 | 100 | 42.9  | 35844 | PASS  |
| 70   | 69   | 0.00 | 2   | 0.2   | 90    | PASS  |
| 127  | 198  | 40   | 60  | 51.0  | 42648 | PASS  |
| 197  | 198  | 0.00 | 1   | 0.3   | 244   | PASS  |
| 198  | 198  | 100  | 100 | 100.0 | 83616 | PASS  |
| 199  | 198  | 5    | 9   | 6.5   | 5415  | PASS  |
| 275  | 198  | 10   | 30  | 20.8  | 17381 | PASS  |
| 365  | 198  | 1    | 100 | 2.6   | 2148  | PASS  |
| 441  | 443  | 0.01 | 100 | 74.7  | 5723  | PASS  |
| 442  | 198  | 40   | 100 | 45.5  | 38024 | PASS  |
| 443  | 442  | 17   | 23  | 20.1  | 7662  | PASS  |

| Data File  | Sample Number     | Analysis Date: |
|------------|-------------------|----------------|
| 5M105989.D | CAL BNA@50PPM     | 10/26/18 08:35 |
| 5M105990.D | WMB71532(MS)      | 10/26/18 09:22 |
| 5M105991.D | AD07212-003       | 10/26/18 09:45 |
| 5M105992.D | AD07212-005       | 10/26/18 10:08 |
| 5M105993.D | AD07212-004       | 10/26/18 10:32 |
| 5M105994.D | AD07142-005(R)    | 10/26/18 10:55 |
| 5M105995.D | AD07142-006(R)    | 10/26/18 11:18 |
| 5M105996.D | AD07142-007(R)    | 10/26/18 11:41 |
| 5M105997.D | AD07142-008(R)    | 10/26/18 12:05 |
| 5M105998.D | AD07142-009(R)    | 10/26/18 12:28 |
| 5M105999.D | AD07294-001(MS)   | 10/26/18 12:51 |
| 5M106000.D | AD07294-001(MSD)  | 10/26/18 13:14 |
| 5M106001.D | WMB71537(MS)      | 10/26/18 13:37 |
| 5M106002.D | AD07212-006       | 10/26/18 14:00 |
| 5M106003.D | AD07204-001(R)    | 10/26/18 14:24 |
| 5M106004.D | AD07205-001(R)    | 10/26/18 14:47 |
| 5M106005.D | WMB71537          | 10/26/18 15:10 |
| 5M106006.D | EF- SPLP V-28996  | 10/26/18 15:36 |
| 5M106007.D | AD07031-001(T)    | 10/26/18 15:59 |
| 5M106008.D | AD07031-001(T)(M) | 10/26/18 16:22 |
| 5M106009.D | AD07031-001(T)(M) | 10/26/18 16:46 |
| 5M106010.D | AD07212-002       | 10/26/18 17:10 |
| 5M106011.D | AD07233-001       | 10/26/18 17:33 |
| 5M106012.D | AD07233-002       | 10/26/18 17:56 |
| 5M106013.D | AD07233-003       | 10/26/18 18:19 |
| 5M106014.D | AD07233-004       | 10/26/18 18:42 |

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-26-18\  
Data File : 5M105988.D  
Acq On : 26 Oct 2018 8:09  
Operator : AH/JB  
Sample : CAL DFTPP  
Misc : A,BNA  
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_5\MethodQt\5M\_1008.M  
Title : @GCMS\_5,mg,625,8270  
Last Update : Mon Oct 08 13:01:42 2018



Spectrum Information: Average of 9.888 to 9.893 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 45.1      | 37712   | PASS             |
| 68          | 69           | 0.00         | 2            | 1.8       | 629     | PASS             |
| 69          | 198          | 0.00         | 100          | 42.9      | 35844   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.2       | 90      | PASS             |
| 127         | 198          | 40           | 60           | 51.0      | 42648   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.3       | 244     | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 83616   | PASS             |
| 199         | 198          | 5            | 9            | 6.5       | 5415    | PASS             |
| 275         | 198          | 10           | 30           | 20.8      | 17381   | PASS             |
| 365         | 198          | 1            | 100          | 2.6       | 2148    | PASS             |
| 441         | 443          | 0.01         | 100          | 74.7      | 5723    | PASS             |
| 442         | 198          | 40           | 100          | 45.5      | 38024   | PASS             |
| 443         | 442          | 17           | 23           | 20.1      | 7662    | PASS             |

## Form 5

Tune Name: CAL DFTPP  
Instrument: GCMS 7

Data File: 7M95341.D  
Analysis Date: 10/26/18 08:11  
Method: EPA 625.1

Tune Scan/Time Range: Average of 9.903 to 9.909 min

| Tgt<br>Mass | Rel<br>Mass | Lo<br>Lim | Hi<br>Lim | Rel<br>Abund | Raw<br>Abund | Pass/<br>Fail |
|-------------|-------------|-----------|-----------|--------------|--------------|---------------|
| 51          | 198         | 30        | 60        | 37.7         | 38844        | PASS          |
| 68          | 69          | 0.00      | 2         | 0.0          | 0            | PASS          |
| 69          | 198         | 0.00      | 100       | 44.0         | 45288        | PASS          |
| 70          | 69          | 0.00      | 2         | 0.6          | 280          | PASS          |
| 127         | 198         | 40        | 60        | 56.9         | 58568        | PASS          |
| 197         | 198         | 0.00      | 1         | 0.0          | 0            | PASS          |
| 198         | 198         | 100       | 100       | 100.0        | 102920       | PASS          |
| 199         | 198         | 5         | 9         | 7.2          | 7400         | PASS          |
| 275         | 198         | 10        | 30        | 20.2         | 20797        | PASS          |
| 365         | 198         | 1         | 100       | 2.0          | 2053         | PASS          |
| 441         | 443         | 0.01      | 100       | 75.9         | 7141         | PASS          |
| 442         | 198         | 40        | 100       | 47.6         | 48960        | PASS          |
| 443         | 442         | 17        | 23        | 19.2         | 9405         | PASS          |

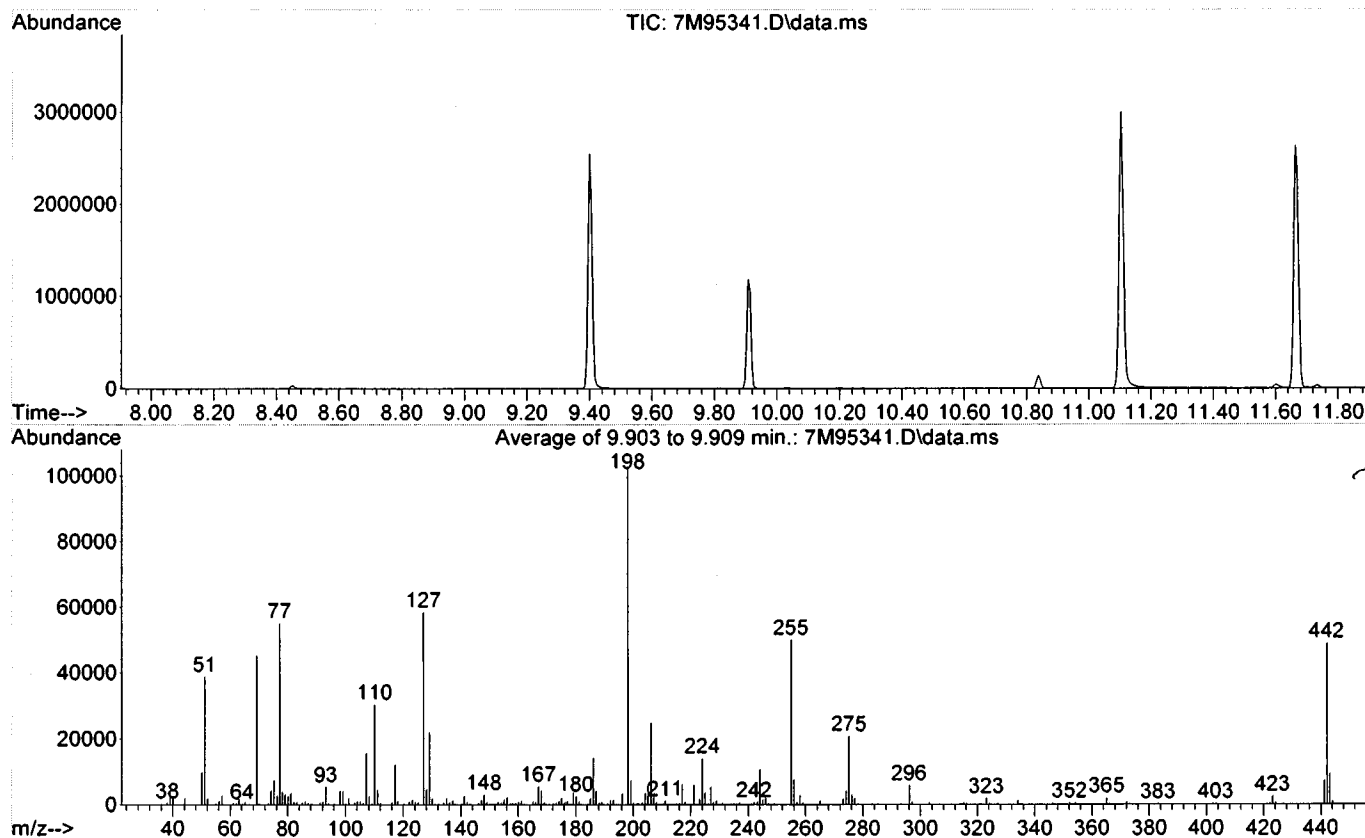
| Data File | Sample Number  | Analysis Date: |
|-----------|----------------|----------------|
| 7M95342.D | CAL BNA@50PPM  | 10/26/18 08:36 |
| 7M95343.D | SMB71534(MS)   | 10/26/18 09:26 |
| 7M95344.D | SMB71534       | 10/26/18 09:48 |
| 7M95345.D | WMB71532       | 10/26/18 10:11 |
| 7M95346.D | AD07165-002(R) | 10/26/18 10:35 |
| 7M95347.D | AD07165-003(R) | 10/26/18 10:58 |
| 7M95348.D | AD07165-007(R) | 10/26/18 11:20 |
| 7M95349.D | AD07165-008(R) | 10/26/18 11:43 |
| 7M95350.D | AD07165-009(R) | 10/26/18 12:06 |
| 7M95351.D | AD07165-010(R) | 10/26/18 12:30 |
| 7M95352.D | AD07165-015(R) | 10/26/18 12:53 |
| 7M95353.D | AD07161-003(R) | 10/26/18 13:16 |
| 7M95354.D | AD07161-005(R) | 10/26/18 13:38 |
| 7M95355.D | AD07161-007(R) | 10/26/18 14:01 |
| 7M95356.D | AD07161-008(R) | 10/26/18 14:25 |
| 7M95357.D | WMB71537       | 10/26/18 14:48 |
| 7M95358.D | AD07233-005    | 10/26/18 15:45 |
| 7M95359.D | AD07233-006    | 10/26/18 16:08 |
| 7M95360.D | AD07233-007    | 10/26/18 16:31 |



Data Path : G:\GcMsData\2018\GCMS\_7\Data\10-26-18\  
 Data File : 7M95341.D  
 Acq On : 26 Oct 2018 8:11  
 Operator : AH/JB  
 Sample : CAL DFTPP  
 Misc : A,BNA  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2018\GCMS\_7\MethodQt\7M\_1008.M  
 Title : @GCMS\_7,mg,625,8270  
 Last Update : Mon Oct 08 16:32:32 2018



Spectrum Information: Average of 9.903 to 9.909 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 37.7      | 38844   | PASS             |
| 68          | 69           | 0.00         | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0.00         | 100          | 44.0      | 45288   | PASS             |
| 70          | 69           | 0.00         | 2            | 0.6       | 280     | PASS             |
| 127         | 198          | 40           | 60           | 56.9      | 58568   | PASS             |
| 197         | 198          | 0.00         | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 102920  | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 7400    | PASS             |
| 275         | 198          | 10           | 30           | 20.2      | 20797   | PASS             |
| 365         | 198          | 1            | 100          | 2.0       | 2053    | PASS             |
| 441         | 443          | 0.01         | 100          | 75.9      | 7141    | PASS             |
| 442         | 198          | 40           | 100          | 47.6      | 48960   | PASS             |
| 443         | 442          | 17           | 23           | 19.2      | 9405    | PASS             |

## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB71471

Client Id:

Data File: 5M105872.D

Analysis Date: 10/19/18 10:48

Date Rec/Extracted: NA-10/18/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3,4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485137

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : WMB71471  
 Data File: 5M105872.D  
 Acq On : 10/19/18 10:48

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 5M\_1000.M  
 Qt On : 10/19/18 11:49  
 Qt Upd On: 10/08/18 13:12

8101509 0552

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.510  | 96   | 62801    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.737  | 152  | 108305   | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 387743   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.162  | 164  | 231707   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 381732   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.661 | 240  | 351287   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 277716   | 40.00 | ng    | 0.00     |

## System Monitoring Compounds

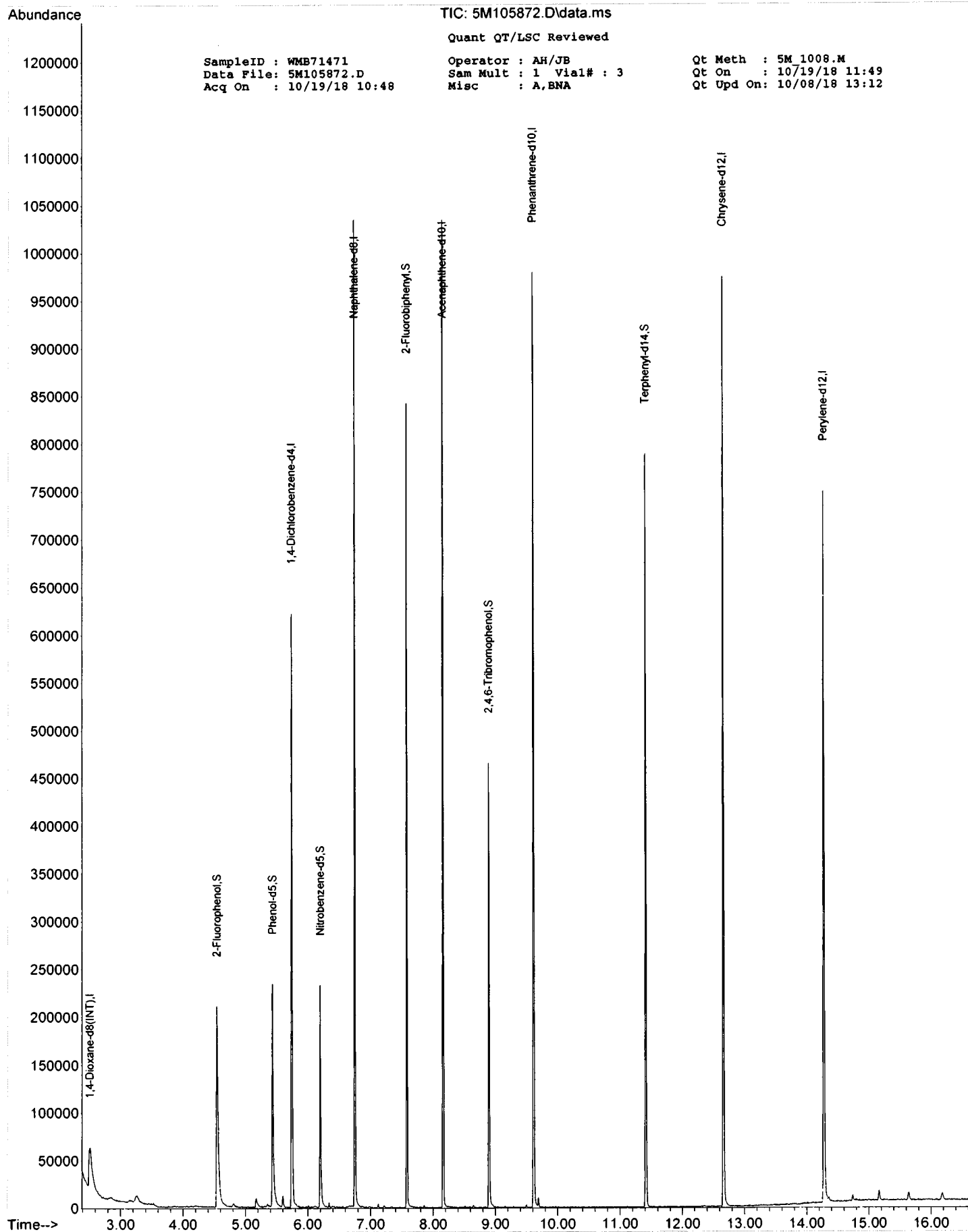
|                          |        |     |          |       |        |      |
|--------------------------|--------|-----|----------|-------|--------|------|
| 11) 2-Fluorophenol       | 4.540  | 112 | 115671   | 35.48 | ng     | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 35.48% |      |
| 16) Phenol-d5            | 5.433  | 99  | 115291   | 22.93 | ng     | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 22.93% |      |
| 32) Nitrobenzene-d5      | 6.196  | 128 | 34028    | 29.74 | ng     | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery | =     | 59.48% |      |
| 55) 2-Fluorobiphenyl     | 7.580  | 172 | 236401   | 31.90 | ng     | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery | =     | 63.80% |      |
| 80) 2,4,6-Tribromophenol | 8.894  | 330 | 40800    | 57.44 | ng     | 0.00 |
| Spiked Amount 100.000    |        |     | Recovery | =     | 57.44% |      |
| 94) Terphenyl-d14        | 11.411 | 244 | 231173   | 41.14 | ng     | 0.00 |
| Spiked Amount 50.000     |        |     | Recovery | =     | 82.28% |      |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB71479

Client Id:

Data File: 5M105881.D

Analysis Date: 10/19/18 14:23

Date Rec/Extracted: NA-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

## Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 485537

Total Target Concentration 0

ColumnID:(^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

8101509 0555

SampleID : WMB71479

Operator : AH/JB

Qt Meth : 5M\_1000.M

Data File: 5M105881.D

Sam Mult : 1 Vial# : 12

Qt On : 10/19/18 14:57

Acq On : 10/19/18 14:23

Misc : A,BNA

Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-19-18\

Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\

Qt Resp Via : Initial Calibration

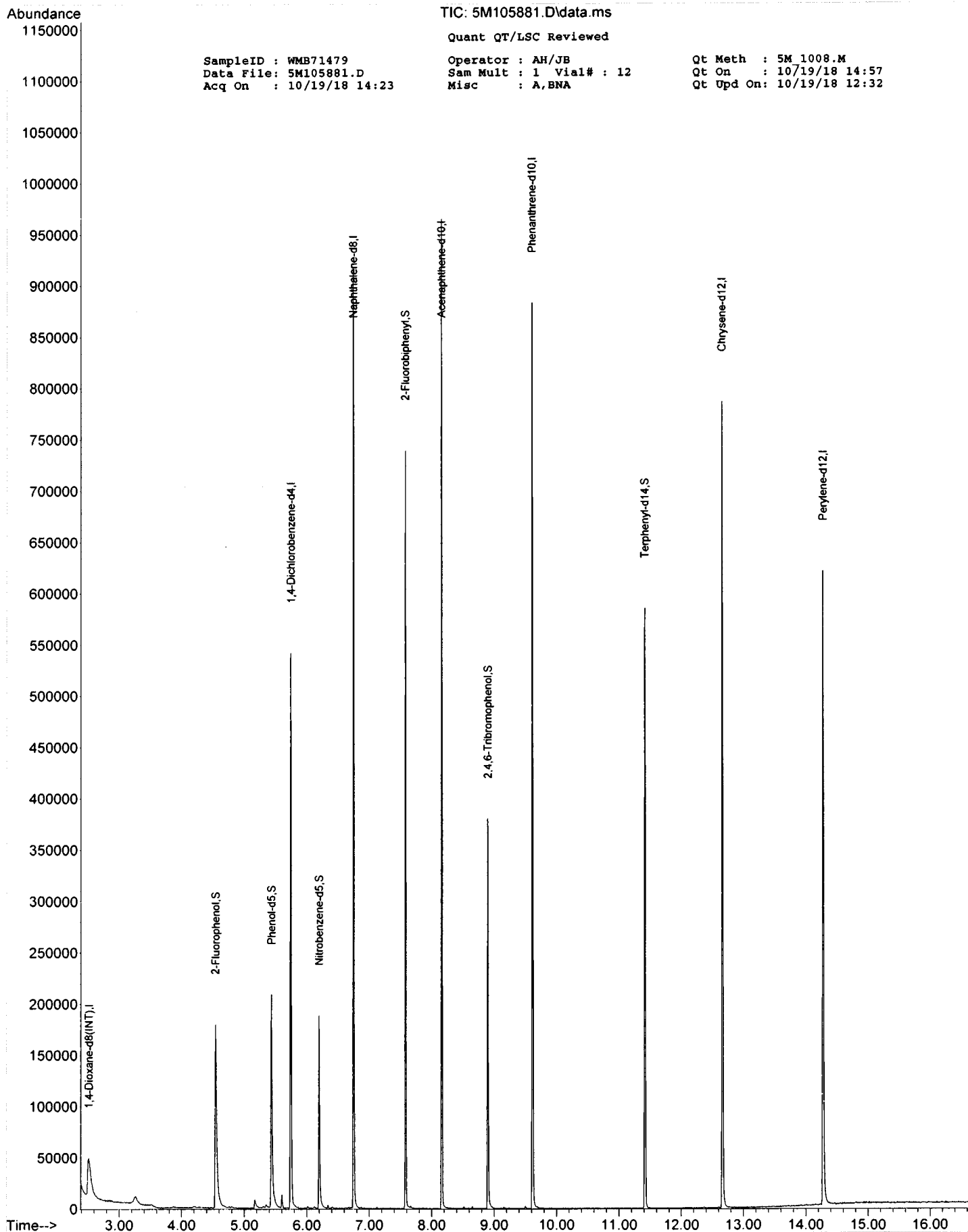
| Compound                    | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|--------|------|----------|-------|--------|----------|
| -----                       |        |      |          |       |        |          |
| Internal Standards          |        |      |          |       |        |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.515  | 96   | 53375    | 40.00 | ng     | 0.01     |
| 21) 1,4-Dichlorobenzene-d4  | 5.742  | 152  | 95199    | 40.00 | ng     | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 348428   | 40.00 | ng     | 0.00     |
| 50) Acenaphthene-d10        | 8.162  | 164  | 197359   | 40.00 | ng     | 0.00     |
| 77) Phenanthrene-d10        | 9.615  | 188  | 329994   | 40.00 | ng     | 0.00     |
| 91) Chrysene-d12            | 12.660 | 240  | 296073   | 40.00 | ng     | 0.00     |
| 103) Perylene-d12           | 14.279 | 264  | 236328   | 40.00 | ng     | 0.00     |
| System Monitoring Compounds |        |      |          |       |        |          |
| 11) 2-Fluorophenol          | 4.540  | 112  | 96690    | 34.90 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 34.90% |          |
| 16) Phenol-d5               | 5.432  | 99   | 100098   | 23.42 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 23.42% |          |
| 32) Nitrobenzene-d5         | 6.196  | 128  | 28303    | 27.53 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 55.06% |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 194499   | 30.81 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 61.62% |          |
| 80) 2,4,6-Tribromophenol    | 8.899  | 330  | 34571    | 56.38 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 56.38% |          |
| 94) Terphenyl-d14           | 11.416 | 244  | 183129   | 38.67 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 77.34% |          |

Target Compounds

Qvalue

( # ) = qualifier out of range ( m ) = manual integration ( + ) = signals summed





## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB71518

Client Id:

Data File: 5M105969.D

Analysis Date: 10/25/18 10:28

Date Rec/Extracted: NA-10/24/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

Units: ug/L

| Cas #     | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
|-----------|----------------------------|------|------|----------|-----------------------------|------|------|
| 92-52-4   | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8   | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7   | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4   | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5   | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2   | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6  | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7  | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9   | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8  | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2   | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7  | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9 | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7  | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3   | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.



SampleID : WMB71518  
Data File: 5M105969.D  
Acq On : 10/25/18 10:28

Operator : AH/JB  
Sam Mult : 1 Vial# : 4  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/25/18 10:53  
Qt Upd On: 10/19/18 12:32

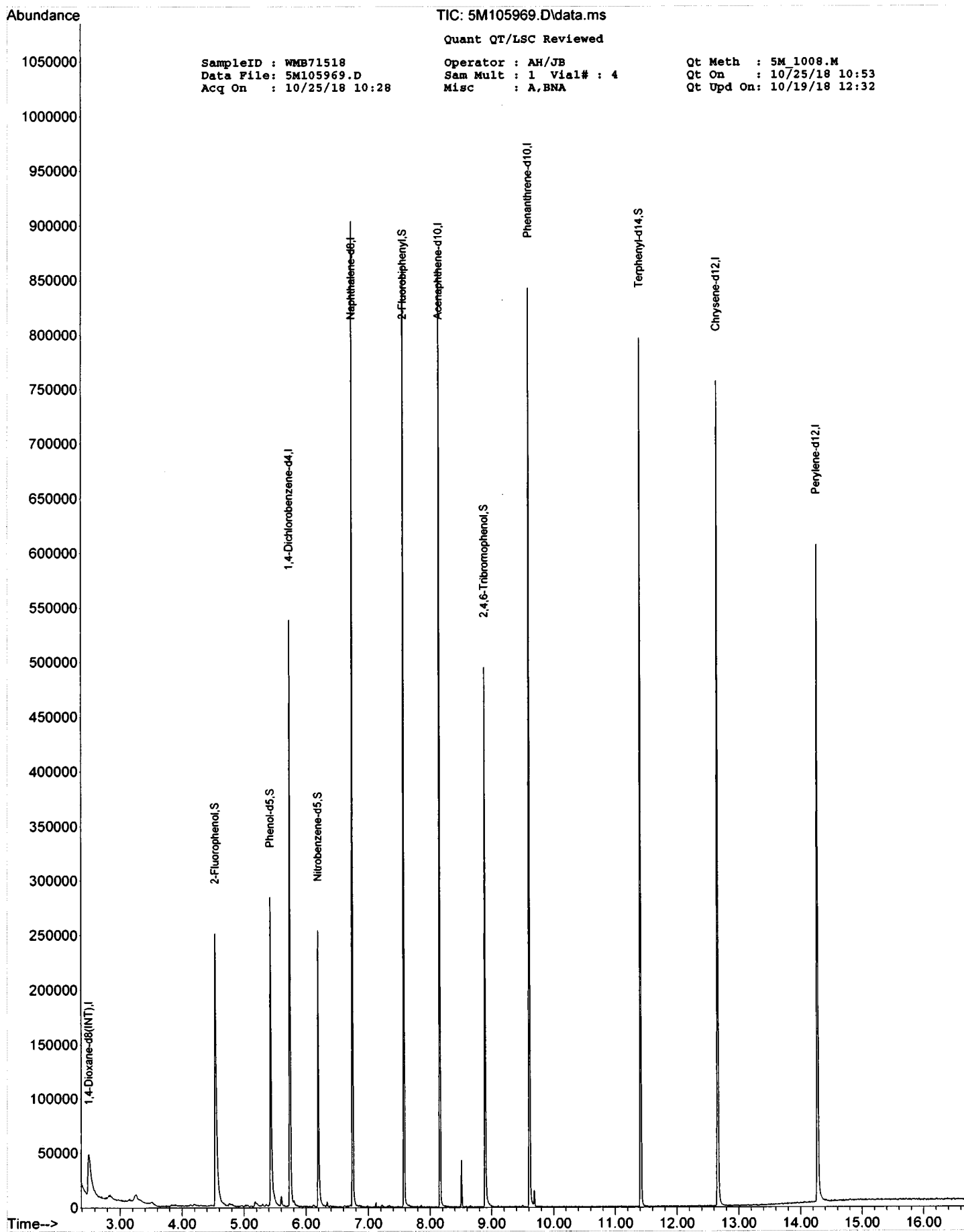
Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-25-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.505  | 96   | 48114    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.737  | 152  | 87383    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 317573   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.157  | 164  | 184910   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 314659   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.661 | 240  | 282548   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 228386   | 40.00 | ng    | 0.00     |

|                             |         |     |          |       |         |      |
|-----------------------------|---------|-----|----------|-------|---------|------|
| System Monitoring Compounds |         |     |          |       |         |      |
| 11) 2-Fluorophenol          | 4.540   | 112 | 129153   | 51.71 | ng      | 0.00 |
| Spiked Amount               | 100.000 |     | Recovery | =     | 51.71%  |      |
| 16) Phenol-d5               | 5.427   | 99  | 123794   | 32.14 | ng      | 0.00 |
| Spiked Amount               | 100.000 |     | Recovery | =     | 32.14%  |      |
| 32) Nitrobenzene-d5         | 6.197   | 128 | 38678    | 41.27 | ng      | 0.00 |
| Spiked Amount               | 50.000  |     | Recovery | =     | 82.54%  |      |
| 55) 2-Fluorobiphenyl        | 7.580   | 172 | 257147   | 43.48 | ng      | 0.00 |
| Spiked Amount               | 50.000  |     | Recovery | =     | 86.96%  |      |
| 80) 2,4,6-Tribromophenol    | 8.894   | 330 | 41304    | 69.46 | ng      | 0.00 |
| Spiked Amount               | 100.000 |     | Recovery | =     | 69.46%  |      |
| 94) Terphenyl-d14           | 11.411  | 244 | 234790   | 51.95 | ng      | 0.00 |
| Spiked Amount               | 50.000  |     | Recovery | =     | 103.90% |      |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB71532

Client Id:

Data File: 5M105980.D

Analysis Date: 10/25/18 14:53

Date Rec/Extracted: NA-10/25/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 625.1

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 0.5ml

Dilution: 1

Solids: 0

| Units: ug/L |                            |      |      |          |                             |      |      |
|-------------|----------------------------|------|------|----------|-----------------------------|------|------|
| Cas #       | Compound                   | RL   | Conc | Cas #    | Compound                    | RL   | Conc |
| 92-52-4     | 1,1'-Biphenyl              | 1.0  | U    | 50-32-8  | Benzo[a]pyrene              | 1.0  | U    |
| 95-94-3     | 1,2,4,5-Tetrachlorobenzene | 1.0  | U    | 205-99-2 | Benzo[b]fluoranthene        | 1.0  | U    |
| 123-91-1    | 1,4-Dioxane                | 0.25 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 1.0  | U    |
| 58-90-2     | 2,3,4,6-Tetrachlorophenol  | 1.0  | U    | 207-08-9 | Benzo[k]fluoranthene        | 1.0  | U    |
| 95-95-4     | 2,4,5-Trichlorophenol      | 1.0  | U    | 111-91-1 | bis(2-Chloroethoxy)methane  | 1.0  | U    |
| 88-06-2     | 2,4,6-Trichlorophenol      | 1.0  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.25 | U    |
| 120-83-2    | 2,4-Dichlorophenol         | 0.25 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 1.0  | U    |
| 105-67-9    | 2,4-Dimethylphenol         | 0.25 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 1.0  | U    |
| 51-28-5     | 2,4-Dinitrophenol          | 5.0  | U    | 85-68-7  | Butylbenzylphthalate        | 1.0  | U    |
| 121-14-2    | 2,4-Dinitrotoluene         | 1.0  | U    | 105-60-2 | Caprolactam                 | 1.0  | U    |
| 606-20-2    | 2,6-Dinitrotoluene         | 1.0  | U    | 86-74-8  | Carbazole                   | 1.0  | U    |
| 91-58-7     | 2-Chloronaphthalene        | 1.0  | U    | 218-01-9 | Chrysene                    | 1.0  | U    |
| 95-57-8     | 2-Chlorophenol             | 1.0  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 1.0  | U    |
| 91-57-6     | 2-Methylnaphthalene        | 1.0  | U    | 132-64-9 | Dibenzofuran                | 0.25 | U    |
| 95-48-7     | 2-Methylphenol             | 0.25 | U    | 84-66-2  | Diethylphthalate            | 1.0  | U    |
| 88-74-4     | 2-Nitroaniline             | 1.0  | U    | 131-11-3 | Dimethylphthalate           | 1.0  | U    |
| 88-75-5     | 2-Nitrophenol              | 1.0  | U    | 84-74-2  | Di-n-butylphthalate         | 0.25 | U    |
| 106-44-5    | 3&4-Methylphenol           | 0.25 | U    | 117-84-0 | Di-n-octylphthalate         | 1.0  | U    |
| 91-94-1     | 3,3'-Dichlorobenzidine     | 1.0  | U    | 206-44-0 | Fluoranthene                | 1.0  | U    |
| 99-09-2     | 3-Nitroaniline             | 1.0  | U    | 86-73-7  | Fluorene                    | 1.0  | U    |
| 534-52-1    | 4,6-Dinitro-2-methylphenol | 5.0  | U    | 118-74-1 | Hexachlorobenzene           | 1.0  | U    |
| 101-55-3    | 4-Bromophenyl-phenylether  | 1.0  | U    | 87-68-3  | Hexachlorobutadiene         | 1.0  | U    |
| 59-50-7     | 4-Chloro-3-methylphenol    | 1.0  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 1.0  | U    |
| 106-47-8    | 4-Chloroaniline            | 0.25 | U    | 67-72-1  | Hexachloroethane            | 1.0  | U    |
| 7005-72-3   | 4-Chlorophenyl-phenylether | 1.0  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 1.0  | U    |
| 100-01-6    | 4-Nitroaniline             | 1.0  | U    | 78-59-1  | Isophorone                  | 1.0  | U    |
| 100-02-7    | 4-Nitrophenol              | 1.0  | U    | 91-20-3  | Naphthalene                 | 0.25 | U    |
| 83-32-9     | Acenaphthene               | 1.0  | U    | 98-95-3  | Nitrobenzene                | 1.0  | U    |
| 208-96-8    | Acenaphthylene             | 1.0  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.25 | U    |
| 98-86-2     | Acetophenone               | 1.0  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 1.0  | U    |
| 120-12-7    | Anthracene                 | 1.0  | U    | 87-86-5  | Pentachlorophenol           | 5.0  | U    |
| 1912-24-9   | Atrazine                   | 1.0  | U    | 85-01-8  | Phenanthrene                | 1.0  | U    |
| 100-52-7    | Benzaldehyde               | 1.0  | U    | 108-95-2 | Phenol                      | 1.0  | U    |
| 56-55-3     | Benzo[a]anthracene         | 1.0  | U    | 129-00-0 | Pyrene                      | 1.0  | U    |

Worksheet #: 493028

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

SampleID : WMB71532  
Data File: 5M105980.D  
Acq On : 10/25/18 14:53

Operator : AH/JB  
Sam Mult : 1 Vial# : 15  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/25/18 15:08  
Qt Upd On: 10/25/18 12:46

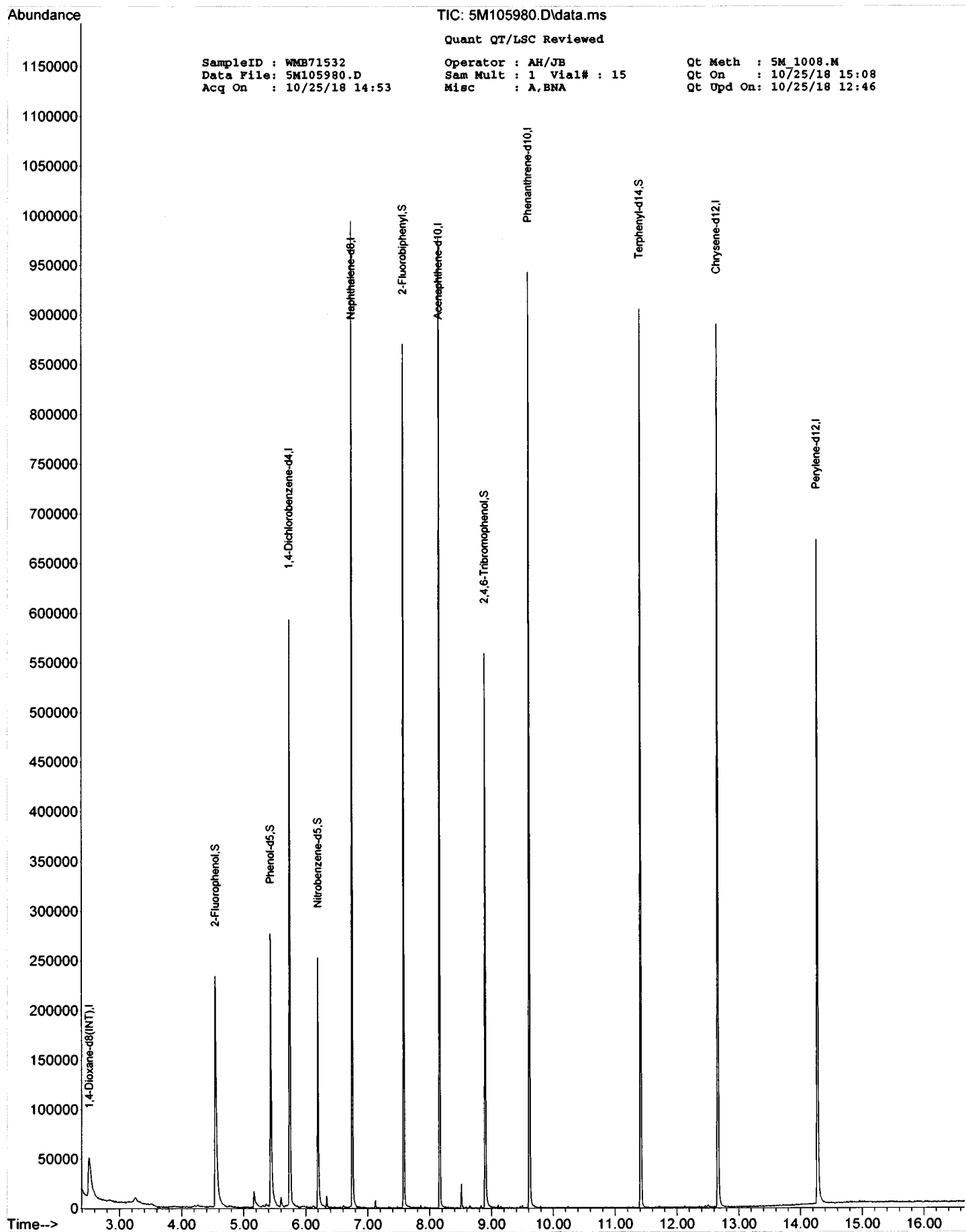
Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-25-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.510  | 96   | 50708    | 40.00 | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4 | 5.737  | 152  | 95469    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 352993   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.157  | 164  | 208074   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 352395   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.660 | 240  | 326489   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 257269   | 40.00 | ng    | 0.00     |

| System Monitoring Compounds |        |     |            |         |    |      |
|-----------------------------|--------|-----|------------|---------|----|------|
| 11) 2-Fluorophenol          | 4.540  | 112 | 120737     | 45.87   | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 45.87%  |    |      |
| 16) Phenol-d5               | 5.427  | 99  | 126071     | 31.05   | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 31.05%  |    |      |
| 32) Nitrobenzene-d5         | 6.196  | 128 | 38844      | 37.29   | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 74.58%  |    |      |
| 55) 2-Fluorobiphenyl        | 7.580  | 172 | 251056     | 37.72   | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 75.44%  |    |      |
| 80) 2,4,6-Tribromophenol    | 8.894  | 330 | 45754      | 68.76   | ng | 0.00 |
| Spiked Amount 100.000       |        |     | Recovery = | 68.76%  |    |      |
| 94) Terphenyl-d14           | 11.410 | 244 | 263652     | 50.49   | ng | 0.00 |
| Spiked Amount 50.000        |        |     | Recovery = | 100.98% |    |      |

| Target Compounds | Qvalue |
|------------------|--------|
|------------------|--------|

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Form1

## ORGANICS SEMIVOLATILE REPORT

Sample Number: SMB71480

Client Id:

Data File: 9M88665.D

Analysis Date: 10/19/18 18:17

Date Rec/Extracted: NA-10/19/18

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 100

## Units: mg/Kg

| Cas #     | Compound                   | RL     | Conc | Cas #    | Compound                    | RL     | Conc |
|-----------|----------------------------|--------|------|----------|-----------------------------|--------|------|
| 92-52-4   | 1,1'-Biphenyl              | 0.033  | U    | 50-32-8  | Benzo[a]pyrene              | 0.033  | U    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene | 0.033  | U    | 205-99-2 | Benzo[b]fluoranthene        | 0.033  | U    |
| 123-91-1  | 1,4-Dioxane                | 0.0083 | U    | 191-24-2 | Benzo[g,h,i]perylene        | 0.033  | U    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 0.033  | U    | 207-08-9 | Benzo[k]fluoranthene        | 0.033  | U    |
| 95-95-4   | 2,4,5-Trichlorophenol      | 0.033  | U    | 111-91-1 | bis(2-Chloroethoxy)methan   | 0.033  | U    |
| 88-06-2   | 2,4,6-Trichlorophenol      | 0.033  | U    | 111-44-4 | bis(2-Chloroethyl)ether     | 0.0083 | U    |
| 120-83-2  | 2,4-Dichlorophenol         | 0.0083 | U    | 108-60-1 | bis(2-chloroisopropyl)ether | 0.033  | U    |
| 105-67-9  | 2,4-Dimethylphenol         | 0.0083 | U    | 117-81-7 | bis(2-Ethylhexyl)phthalate  | 0.033  | U    |
| 51-28-5   | 2,4-Dinitrophenol          | 0.17   | U    | 85-68-7  | Butylbenzylphthalate        | 0.033  | U    |
| 121-14-2  | 2,4-Dinitrotoluene         | 0.033  | U    | 105-60-2 | Caprolactam                 | 0.033  | U    |
| 606-20-2  | 2,6-Dinitrotoluene         | 0.033  | U    | 86-74-8  | Carbazole                   | 0.033  | U    |
| 91-58-7   | 2-Chloronaphthalene        | 0.033  | U    | 218-01-9 | Chrysene                    | 0.033  | U    |
| 95-57-8   | 2-Chlorophenol             | 0.033  | U    | 53-70-3  | Dibenzo[a,h]anthracene      | 0.033  | U    |
| 91-57-6   | 2-Methylnaphthalene        | 0.033  | U    | 132-64-9 | Dibenzofuran                | 0.0083 | U    |
| 95-48-7   | 2-Methylphenol             | 0.0083 | U    | 84-66-2  | Diethylphthalate            | 0.033  | U    |
| 88-74-4   | 2-Nitroaniline             | 0.033  | U    | 131-11-3 | Dimethylphthalate           | 0.033  | U    |
| 88-75-5   | 2-Nitrophenol              | 0.033  | U    | 84-74-2  | Di-n-butylphthalate         | 0.0083 | U    |
| 106-44-5  | 3&4-Methylphenol           | 0.0083 | U    | 117-84-0 | Di-n-octylphthalate         | 0.033  | U    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | 0.033  | U    | 206-44-0 | Fluoranthene                | 0.033  | U    |
| 99-09-2   | 3-Nitroaniline             | 0.033  | U    | 86-73-7  | Fluorene                    | 0.033  | U    |
| 534-52-1  | 4,6-Dinitro-2-methylphenol | 0.17   | U    | 118-74-1 | Hexachlorobenzene           | 0.033  | U    |
| 101-55-3  | 4-Bromophenyl-phenylether  | 0.033  | U    | 87-68-3  | Hexachlorobutadiene         | 0.033  | U    |
| 59-50-7   | 4-Chloro-3-methylphenol    | 0.033  | U    | 77-47-4  | Hexachlorocyclopentadiene   | 0.033  | U    |
| 106-47-8  | 4-Chloroaniline            | 0.0083 | U    | 67-72-1  | Hexachloroethane            | 0.033  | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 0.033  | U    | 193-39-5 | Indeno[1,2,3-cd]pyrene      | 0.033  | U    |
| 100-01-6  | 4-Nitroaniline             | 0.033  | U    | 78-59-1  | Isophorone                  | 0.033  | U    |
| 100-02-7  | 4-Nitrophenol              | 0.033  | U    | 91-20-3  | Naphthalene                 | 0.0083 | U    |
| 83-32-9   | Acenaphthene               | 0.033  | U    | 98-95-3  | Nitrobenzene                | 0.033  | U    |
| 208-96-8  | Acenaphthylene             | 0.033  | U    | 621-64-7 | N-Nitroso-di-n-propylamine  | 0.0083 | U    |
| 98-86-2   | Acetophenone               | 0.033  | U    | 86-30-6  | n-Nitrosodiphenylamine      | 0.033  | U    |
| 120-12-7  | Anthracene                 | 0.033  | U    | 87-86-5  | Pentachlorophenol           | 0.17   | U    |
| 1912-24-9 | Atrazine                   | 0.033  | U    | 85-01-8  | Phenanthrene                | 0.033  | U    |
| 100-52-7  | Benzaldehyde               | 0.033  | U    | 108-95-2 | Phenol                      | 0.033  | U    |
| 56-55-3   | Benzo[a]anthracene         | 0.033  | U    | 129-00-0 | Pyrene                      | 0.033  | U    |

Worksheet #: 489030

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

SampleID : SMB71480  
Data File: 9M88665.D  
Acq On : 10/19/18 18:17

Operator : AH/JB  
Sam Mult : 1 Vial# : 20  
Misc : S,BNA

Qt Meth : 9M\_1008.M  
Qt On : 10/22/18 07:33  
Qt Upd On: 10/08/18 16:51

Data Path : G:\GCMSData\2018\GCMS\_9\Data\10-1918\  
Qt Path : G:\GCMSDATA\2018\GCMS\_9\METHODQT\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.532  | 96   | 25465    | 40.00 | ng    | -0.01    |
| 21) 1,4-Dichlorobenzene-d4 | 5.792  | 152  | 49794    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.803  | 136  | 190279   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.232  | 164  | 112904   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.693  | 188  | 191080   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.753 | 240  | 202679   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.378 | 264  | 175398   | 40.00 | ng    | 0.00     |

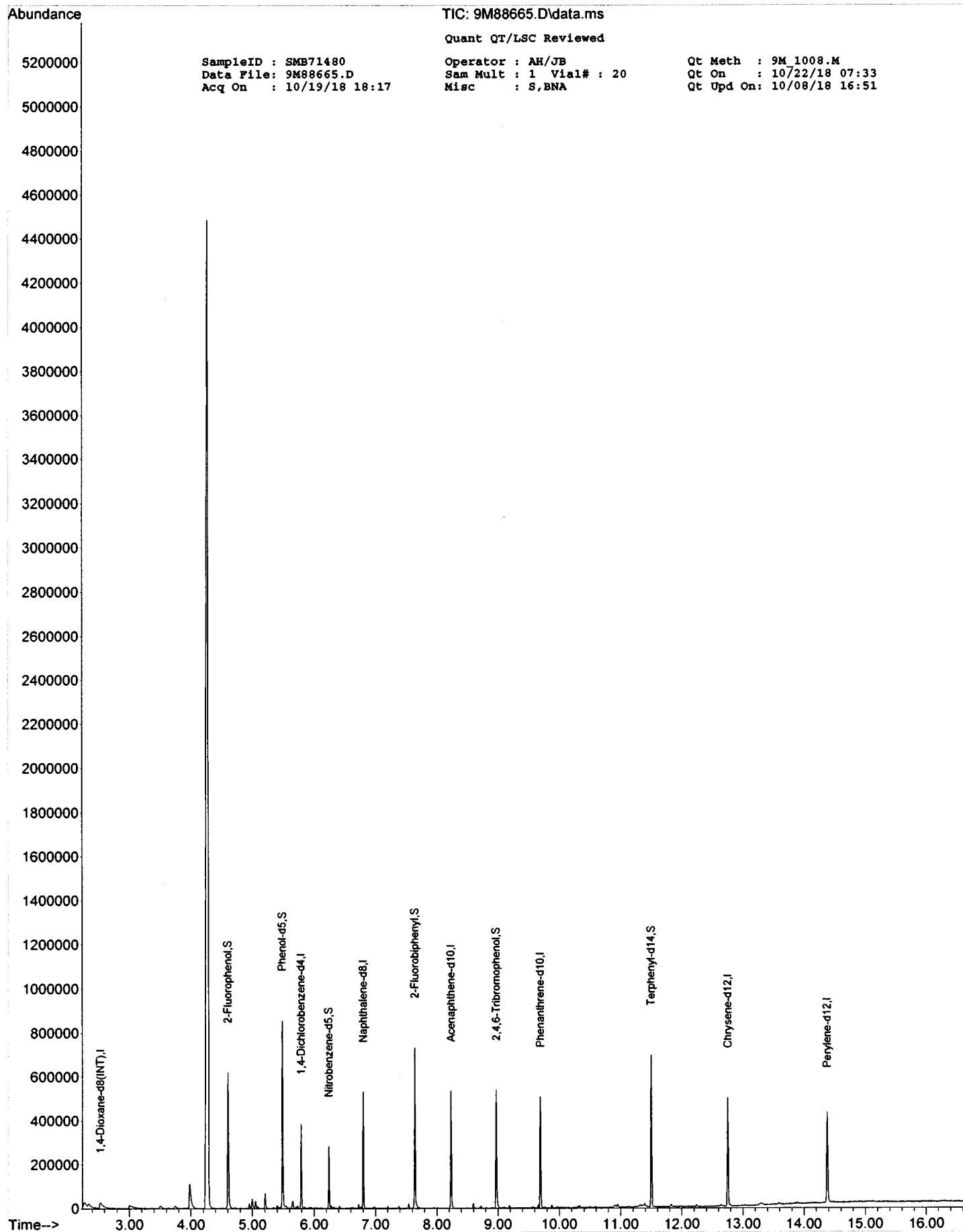
## System Monitoring Compounds

|                          |         |     |          |        |         |      |
|--------------------------|---------|-----|----------|--------|---------|------|
| 11) 2-Fluorophenol       | 4.604   | 112 | 163420   | 109.40 | ng      | 0.01 |
| Spiked Amount            | 100.000 |     | Recovery | =      | 109.40% |      |
| 16) Phenol-d5            | 5.487   | 99  | 240558   | 111.89 | ng      | 0.00 |
| Spiked Amount            | 100.000 |     | Recovery | =      | 111.89% |      |
| 32) Nitrobenzene-d5      | 6.240   | 128 | 31469    | 51.93  | ng      | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =      | 103.86% |      |
| 55) 2-Fluorobiphenyl     | 7.644   | 172 | 202164   | 55.49  | ng      | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =      | 110.98% |      |
| 80) 2,4,6-Tribromophenol | 8.974   | 330 | 57268    | 108.72 | ng      | 0.00 |
| Spiked Amount            | 100.000 |     | Recovery | =      | 108.72% |      |
| 94) Terphenyl-d14        | 11.500  | 244 | 209308   | 60.98  | ng      | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =      | 121.96% |      |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed





**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71471

8101509 0566

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71439.D    |     | WMB71471(MS)    |             | 10/19/2018 10:35:00 A |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 58.7193         | 0           | 100                   | 59       | 20          | 160         |
| Pyridine                    | 1   | 21.4565         | 0           | 100                   | 21       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 54.1138         | 0           | 100                   | 54       | 20          | 150         |
| Benzaldehyde                | 1   | 133.308         | 0           | 100                   | 133      | 20          | 234         |
| Aniline                     | 1   | 57.4314         | 0           | 100                   | 57       | 20          | 150         |
| Pentachloroethane           | 1   | 86.0463         | 0           | 100                   | 86       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 78.9651         | 0           | 100                   | 79       | 43          | 126         |
| Phenol                      | 1   | 41.2804         | 0           | 100                   | 41       | 17          | 120         |
| 2-Chlorophenol              | 1   | 80.223          | 0           | 100                   | 80       | 36          | 120         |
| N-Decane                    | 1   | 77.6748         | 0           | 100                   | 78       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 75.4158         | 0           | 100                   | 75       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 78.4649         | 0           | 100                   | 78       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 77.3967         | 0           | 100                   | 77       | 25          | 130         |
| Benzyl alcohol              | 1   | 84.5033         | 0           | 100                   | 85       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 72.7897         | 0           | 100                   | 73       | 63          | 139         |
| 2-Methylphenol              | 1   | 77.3698         | 0           | 100                   | 77       | 35          | 130         |
| Acetophenone                | 1   | 103.3882        | 0           | 100                   | 103      | 50          | 130         |
| Hexachloroethane            | 1   | 79.9235         | 0           | 100                   | 80       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.0365         | 0           | 100                   | 84       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 79.0404         | 0           | 100                   | 79       | 30          | 130         |
| Nitrobenzene                | 1   | 88.2765         | 0           | 100                   | 88       | 54          | 158         |
| Isophorone                  | 1   | 87.8729         | 0           | 100                   | 88       | 47          | 180         |
| 2-Nitrophenol               | 1   | 94.2597         | 0           | 100                   | 94       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 84.1755         | 0           | 100                   | 84       | 42          | 120         |
| Benzoic Acid                | 1   | 13.5158         | 0           | 100                   | 14       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 87.4569         | 0           | 100                   | 87       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 94.4443         | 0           | 100                   | 94       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 86.4136         | 0           | 100                   | 86       | 57          | 130         |
| Naphthalene                 | 1   | 90.456          | 0           | 100                   | 90       | 36          | 120         |
| 4-Chloroaniline             | 1   | 112.8356        | 0           | 100                   | 113      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 82.9372         | 0           | 100                   | 83       | 38          | 120         |
| Caprolactam                 | 1   | 49.153          | 0           | 100                   | 49       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 101.289         | 0           | 100                   | 101      | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 93.7869         | 0           | 100                   | 94       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 107.6412        | 0           | 100                   | 108      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 90.2454         | 0           | 100                   | 90       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 101.2096        | 0           | 100                   | 101      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 81.8697         | 0           | 100                   | 82       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 95.547          | 0           | 100                   | 96       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 96.6632         | 0           | 100                   | 97       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 89.6118         | 0           | 100                   | 90       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 88.6287         | 0           | 100                   | 89       | 50          | 130         |
| Diphenyl Ether              | 1   | 106.2983        | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.7805         | 0           | 100                   | 98       | 40          | 150         |
| Coumarin                    | 1   | 102.3881        | 0           | 100                   | 102      | 1           | 180         |
| Acenaphthylene              | 1   | 99.4373         | 0           | 100                   | 99       | 54          | 126         |
| Dimethylphthalate           | 1   | 91.0318         | 0           | 100                   | 91       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.0558         | 0           | 100                   | 94       | 68          | 137         |
| Acenaphthene                | 1   | 88.9111         | 0           | 100                   | 89       | 60          | 132         |
| 3-Nitroaniline              | 1   | 105.7086        | 0           | 100                   | 106      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 82.7426         | 0           | 100                   | 83       | 1           | 173         |
| Dibenzofuran                | 1   | 94.0314         | 0           | 100                   | 94       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 85.0567         | 0           | 100                   | 85       | 48          | 127         |
| 4-Nitrophenol               | 1   | 43.384          | 0           | 100                   | 43       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 87.684          | 0           | 100                   | 88       | 50          | 130         |
| Fluorene                    | 1   | 88.324          | 0           | 100                   | 88       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 88.7056         | 0           | 100                   | 89       | 38          | 145         |
| Diethylphthalate            | 1   | 87.6197         | 0           | 100                   | 88       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.6938         | 0           | 100                   | 98       | 40          | 150         |
| Atrazine                    | 1   | 88.4145         | 0           | 100                   | 88       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 103.9226        | 0           | 100                   | 104      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

**8101509 0567**

QC Batch: WMB71471

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.6501  | 0 | 100 | 78  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 96.8691  | 0 | 100 | 97  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 94.4694  | 0 | 100 | 94  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.1156  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 94.1389  | 0 | 100 | 94  | 50 | 130 |
| Pentachlorophenol          | 1 | 104.599  | 0 | 100 | 105 | 38 | 152 |
| Phenanthrene               | 1 | 92.2224  | 0 | 100 | 92  | 65 | 120 |
| Anthracene                 | 1 | 89.6239  | 0 | 100 | 90  | 43 | 120 |
| Carbazole                  | 1 | 104.6686 | 0 | 100 | 105 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 91.0111  | 0 | 100 | 91  | 8  | 120 |
| Fluoranthene               | 1 | 95.9092  | 0 | 100 | 96  | 43 | 121 |
| Pyrene                     | 1 | 95.8684  | 0 | 100 | 96  | 70 | 120 |
| Benzidine                  | 1 | 22.1051  | 0 | 100 | 22  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 94.1343  | 0 | 100 | 94  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 93.097   | 0 | 100 | 93  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 92.4141  | 0 | 100 | 92  | 42 | 133 |
| Chrysene                   | 1 | 86.1945  | 0 | 100 | 86  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.0988  | 0 | 100 | 98  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 93.4639  | 0 | 100 | 93  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 93.5776  | 0 | 100 | 94  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 96.4853  | 0 | 100 | 96  | 25 | 146 |
| Benzo[a]pyrene             | 1 | 89.348   | 0 | 100 | 89  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 92.0281  | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 95.4942  | 0 | 100 | 95  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 91.2238  | 0 | 100 | 91  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

8101509 0568

SampleID : WMB71471(MS)  
 Data File: 10M71439.D  
 Acq On : 10/19/18 10:35

Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

Qt Meth : 10M\_100%  
 Qt On : 10/19/18 11:57  
 Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| -----                         |        |      |          |          |        |          |
| Internal Standards            |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)       | 2.727  | 96   | 43061    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4    | 5.893  | 152  | 83409    | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8            | 6.899  | 136  | 302478   | 40.00    | ng     | 0.00     |
| 50) Acenaphthene-d10          | 8.332  | 164  | 194312   | 40.00    | ng     | 0.00     |
| 77) Phenanthrene-d10          | 9.803  | 188  | 335279   | 40.00    | ng     | 0.00     |
| 91) Chrysene-d12              | 12.863 | 240  | 310192   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12             | 14.494 | 264  | 313310   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds   |        |      |          |          |        |          |
| 11) 2-Fluorophenol            | 4.717  | 112  | 102205   | 41.00    | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 41.00% |          |
| 16) Phenol-d5                 | 5.583  | 99   | 104408   | 30.95    | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 30.95% |          |
| 32) Nitrobenzene-d5           | 6.343  | 128  | 34729    | 35.93    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 71.86% |          |
| 55) 2-Fluorobiphenyl          | 7.739  | 172  | 240099   | 38.59    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 77.18% |          |
| 80) 2,4,6-Tribromophenol      | 9.076  | 330  | 59750    | 75.59    | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 75.59% |          |
| 94) Terphenyl-d14             | 11.600 | 244  | 239080   | 42.06    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 84.12% |          |
| Target Compounds              |        |      |          |          |        |          |
| 8) 1,4-Dioxane                | 2.775  | 88   | 60936    | 58.7193  | ng     | 98       |
| 9) Pyridine                   | 3.267  | 79   | 49674    | 21.4565  | ng     | 68       |
| 10) N-Nitrosodimethylamine    | 3.187  | 74   | 77654    | 54.1138  | ng     | 82       |
| 12) Benzaldehyde              | 5.530  | 77   | 159949   | 133.3080 | ng     | 75       |
| 13) Aniline                   | 5.621  | 93   | 200956   | 57.4314  | ng     | 60       |
| 14) Pentachloroethane         | 5.658  | 117  | 81155    | 86.0463  | ng     | 72       |
| 15) bis(2-Chloroethyl) ether  | 5.674  | 93   | 196677   | 78.9651  | ng     | 78       |
| 17) Phenol                    | 5.594  | 94   | 137936   | 41.2804  | ng     | 88       |
| 18) 2-Chlorophenol            | 5.717  | 128  | 223893   | 80.2230  | ng     | 75       |
| 19) N-Decane                  | 5.749  | 57   | 170136   | 77.6748  | ng     | 76       |
| 20) 1,3-Dichlorobenzene       | 5.845  | 146  | 233386   | 75.4158  | ng     | 94       |
| 22) 1,4-Dichlorobenzene       | 5.909  | 146  | 240830   | 78.4649  | ng     | 97       |
| 23) 1,2-Dichlorobenzene       | 6.032  | 146  | 232127   | 77.3967  | ng     | 96       |
| 24) Benzyl alcohol            | 6.011  | 108  | 143012   | 84.5033  | ng     | 70       |
| 25) bis(2-chloroisopropyl)... | 6.113  | 45   | 207251   | 72.7897  | ng     | 81       |
| 26) 2-Methylphenol            | 6.097  | 108  | 187678   | 77.3698  | ng     | 99       |
| 27) Acetophenone              | 6.225  | 105  | 355161   | 103.3882 | ng     | 65       |
| 28) Hexachloroethane          | 6.305  | 117  | 94998    | 79.9235  | ng     | 87       |
| 29) N-Nitroso-di-n-propyla... | 6.220  | 70   | 134533   | 84.0365  | ng     | 83       |
| 30) 3&4-Methylphenol          | 6.214  | 108  | 182106   | 79.0404  | ng     | 92       |
| 33) Nitrobenzene              | 6.359  | 77   | 231993   | 88.2765  | ng     | 77       |
| 34) Isophorone                | 6.541  | 82   | 397468   | 87.8729  | ng     | 86       |
| 35) 2-Nitrophenol             | 6.605  | 139  | 135567   | 94.2597  | ng     | 90       |
| 36) 2,4-Dimethylphenol        | 6.626  | 107  | 225984   | 84.1755  | ng     | 94       |
| 37) Benzoic Acid              | 6.690  | 105  | 24993    | 13.5158  | ng     | 83       |
| 38) bis(2-Chloroethoxy)met... | 6.701  | 93   | 248148   | 87.4569  | ng     | 97       |
| 39) 2,4-Dichlorophenol        | 6.787  | 162  | 221216   | 94.4443  | ng     | 85       |
| 40) 1,2,4-Trichlorobenzene    | 6.851  | 180  | 219420   | 86.4136  | ng     | 96       |
| 41) Naphthalene               | 6.915  | 128  | 717280   | 90.4560  | ng     | 99       |
| 42) 4-Chloroaniline           | 6.952  | 127  | 293450m  | 112.8356 | ng     |          |
| 43) Hexachlorobutadiene       | 6.995  | 225  | 117892   | 82.9372  | ng     | 96       |
| 44) Caprolactam               | 7.225  | 113  | 40213    | 49.1530  | ng     | 65       |
| 45) 4-Chloro-3-methylphenol   | 7.311  | 107  | 217371   | 101.2890 | ng     | 83       |
| 46) 2-Methylnaphthalene       | 7.450  | 142  | 497322   | 93.7869  | ng     | 100      |
| 47) 1-Methylnaphthalene       | 7.530  | 142  | 561446   | 107.6412 | ng     | 92       |
| 49) 1,1'-Biphenyl             | 7.824  | 154  | 594703   | 90.2454  | ng     | 93       |
| 51) 1,2,4,5-Tetrachloroben... | 7.584  | 216  | 269569   | 101.2096 | ng     | 99       |
| 52) Hexachlorocyclopentadiene | 7.568  | 237  | 86809    | 81.8697  | ng     | 99       |
| 53) 2,4,6-Trichlorophenol     | 7.669  | 196  | 154612   | 95.5470  | ng     | 96       |
| 54) 2,4,5-Trichlorophenol     | 7.707  | 196  | 166140   | 96.6632  | ng     | 95       |
| 56) 2-Chloronaphthalene       | 7.851  | 162  | 459801   | 89.6118  | ng     | 92       |
| 57) 1,4-Dimethylnaphthalene   | 8.129  | 156  | 375336   | 88.6287  | ng     | 90       |
| 59) Diphenyl Ether            | 7.910  | 170  | 404103   | 106.2983 | ng     | 79       |
| 60) 2-Nitroaniline            | 7.931  | 65   | 178294   | 97.7805  | ng     | 42       |
| 61) Coumarin                  | 8.118  | 146  | 193459   | 102.3881 | ng     | 62       |
| 62) Acenaphthylene            | 8.209  | 152  | 752533   | 99.4373  | ng     | 98       |
| 63) Dimethylphthalate         | 8.065  | 163  | 545530   | 91.0318  | ng     | 99       |
| 64) 2,6-Dinitrotoluene        | 8.129  | 165  | 117300   | 94.0558  | ng     | 79       |
| 65) Acenaphthene              | 8.364  | 153  | 474496   | 88.9111  | ng     | 95       |
| 66) 3-Nitroaniline            | 8.284  | 138  | 150388   | 105.7086 | ng     | 72       |
| 67) 2,4-Dinitrophenol         | 8.381  | 184  | 63202    | 82.7426  | ng     | 39       |

SampleID : WMB71471(MS)  
 Data File: 10M71439.D  
 Acq On : 10/19/18 10:35

Operator : AH/JB  
 Sam Mult : 1 Vial# : 4  
 Misc : A,BNA

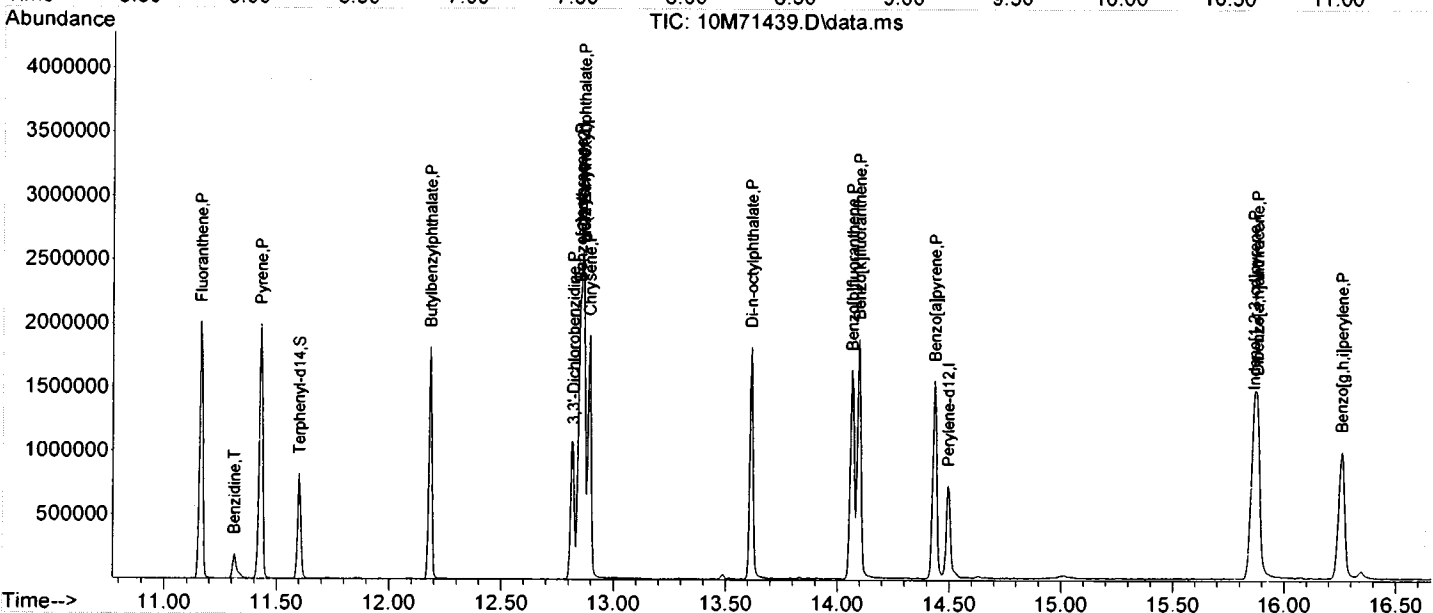
Qt Meth : 10M\_1008.M  
 Qt On : 10/19/18 11:57  
 Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 68) Dibenzofuran               | 8.520  | 168  | 712288   | 94.0314  | ng    | 86       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 167046   | 85.0567  | ng    | 68       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 46405    | 43.3840  | ng    | 66       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 131314   | 87.6840  | ng    | 87       |
| 72) Fluorene                   | 8.841  | 166  | 540425   | 88.3240  | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.824  | 204  | 258973   | 88.7056  | ng    | 89       |
| 74) Diethylphthalate           | 8.701  | 149  | 518998   | 87.6197  | ng    | 97       |
| 75) 4-Nitroaniline             | 8.857  | 138  | 166354   | 97.6938  | ng    | 86       |
| 76) Atrazine                   | 9.472  | 200  | 175745   | 88.4145  | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.883  | 198  | 107089   | 103.9226 | ng    | 60       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 392521   | 77.6501  | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 597425   | 96.8691  | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 146686   | 94.4694  | ng    | 87       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 150285   | 90.1156  | ng    | 70       |
| 84) N-Octadecane               | 9.637  | 57   | 267056   | 94.1389  | ng    | 72       |
| 85) Pentachlorophenol          | 9.589  | 266  | 92839    | 104.5990 | ng    | 96       |
| 86) Phenanthrene               | 9.830  | 178  | 816940   | 92.2224  | ng    | 99       |
| 87) Anthracene                 | 9.883  | 178  | 805746   | 89.6239  | ng    | 99       |
| 88) Carbazole                  | 10.055 | 167  | 856119   | 104.6686 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 921788   | 91.0111  | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 896049   | 95.9092  | ng    | 89       |
| 92) Pyrene                     | 11.429 | 202  | 916523   | 95.8684  | ng    | 82       |
| 93) Benzidine                  | 11.312 | 184  | 80624    | 22.1051  | ng    | 84       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 417045   | 94.1343  | ng    | 76       |
| 99) 3,3'-Dichlorobenzidine     | 12.820 | 252  | 264683   | 93.0970  | ng    | 93       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 795359   | 92.4141  | ng    | 98       |
| 101) Chrysene                  | 12.895 | 228  | 728505   | 86.1945  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 582110   | 98.0988  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 987002   | 93.4639  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 795670   | 93.5776  | ng    | 94       |
| 106) Benzo[k]fluoranthene      | 14.098 | 252  | 808235m  | 96.4853  | ng    |          |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 737734   | 89.3480  | ng    | 91       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 799819   | 92.0281  | ng    | 85       |
| 109) Dibenzo[a,h]anthracene    | 15.879 | 278  | 688471   | 95.4942  | ng    | 90       |
| 110) Benzo[g,h,i]perylene      | 16.259 | 276  | 700171   | 91.2238  | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Qt Meth : 10M 1008.M
Qt On : 10/19/18 11:57
Qt Upd On: 10/08/18 12:40
```



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

8101509 0571

|                             |     |                 |             |                       |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
| Spike or Dup: 7M95306.D     |     | WMB71479(MS)    |             | 10/19/2018 2:26:00 PM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 69.0027         | 0           | 100                   | 69       | 20          | 160         |
| Pyridine                    | 1   | 36.267          | 0           | 100                   | 36       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 58.1228         | 0           | 100                   | 58       | 20          | 150         |
| Benzaldehyde                | 1   | 136.4587        | 0           | 100                   | 136      | 20          | 234         |
| Aniline                     | 1   | 78.1613         | 0           | 100                   | 78       | 20          | 150         |
| Pentachloroethane           | 1   | 88.4306         | 0           | 100                   | 88       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 78.9094         | 0           | 100                   | 79       | 43          | 126         |
| Phenol                      | 1   | 39.122          | 0           | 100                   | 39       | 17          | 120         |
| 2-Chlorophenol              | 1   | 75.2627         | 0           | 100                   | 75       | 36          | 120         |
| N-Decane                    | 1   | 75.1357         | 0           | 100                   | 75       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 72.4267         | 0           | 100                   | 72       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 81.4073         | 0           | 100                   | 81       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 81.6788         | 0           | 100                   | 82       | 25          | 130         |
| Benzyl alcohol              | 1   | 82.4281         | 0           | 100                   | 82       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 73.6381         | 0           | 100                   | 74       | 63          | 139         |
| 2-Methylphenol              | 1   | 77.8179         | 0           | 100                   | 78       | 35          | 130         |
| Acetophenone                | 1   | 106.7914        | 0           | 100                   | 107      | 50          | 130         |
| Hexachloroethane            | 1   | 79.8436         | 0           | 100                   | 80       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 78.982          | 0           | 100                   | 79       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 72.799          | 0           | 100                   | 73       | 30          | 130         |
| Nitrobenzene                | 1   | 92.0091         | 0           | 100                   | 92       | 54          | 158         |
| Isophorone                  | 1   | 89.7629         | 0           | 100                   | 90       | 47          | 180         |
| 2-Nitrophenol               | 1   | 92.9104         | 0           | 100                   | 93       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 87.4787         | 0           | 100                   | 87       | 42          | 120         |
| Benzoic Acid                | 1   | 21.532          | 0           | 100                   | 22       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 86.8441         | 0           | 100                   | 87       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 91.7642         | 0           | 100                   | 92       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 87.4633         | 0           | 100                   | 87       | 57          | 130         |
| Naphthalene                 | 1   | 83.3188         | 0           | 100                   | 83       | 36          | 120         |
| 4-Chloroaniline             | 1   | 114.0252        | 0           | 100                   | 114      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 86.7801         | 0           | 100                   | 87       | 38          | 120         |
| Caprolactam                 | 1   | 52.5262         | 0           | 100                   | 53       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 93.2287         | 0           | 100                   | 93       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 94.1586         | 0           | 100                   | 94       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 114.3009        | 0           | 100                   | 114      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 95.484          | 0           | 100                   | 95       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 114.2755        | 0           | 100                   | 114      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 101.6695        | 0           | 100                   | 102      | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 102.3739        | 0           | 100                   | 102      | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 93.077          | 0           | 100                   | 93       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 89.7704         | 0           | 100                   | 90       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 96.6729         | 0           | 100                   | 97       | 50          | 130         |
| Diphenyl Ether              | 1   | 114.7718        | 0           | 100                   | 115      | 50          | 140         |
| 2-Nitroaniline              | 1   | 106.9342        | 0           | 100                   | 107      | 40          | 150         |
| Coumarin                    | 1   | 107.9373        | 0           | 100                   | 108      | 1           | 180         |
| Acenaphthylene              | 1   | 98.4582         | 0           | 100                   | 98       | 54          | 126         |
| Dimethylphthalate           | 1   | 92.738          | 0           | 100                   | 93       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 95.9042         | 0           | 100                   | 96       | 68          | 137         |
| Acenaphthene                | 1   | 92.2175         | 0           | 100                   | 92       | 60          | 132         |
| 3-Nitroaniline              | 1   | 115.917         | 0           | 100                   | 116      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 112.3621        | 0           | 100                   | 112      | 1           | 173         |
| Dibenzofuran                | 1   | 97.1048         | 0           | 100                   | 97       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 92.2794         | 0           | 100                   | 92       | 48          | 127         |
| 4-Nitrophenol               | 1   | 50.0916         | 0           | 100                   | 50       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 86.9346         | 0           | 100                   | 87       | 50          | 130         |
| Fluorene                    | 1   | 90.6281         | 0           | 100                   | 91       | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 90.2356         | 0           | 100                   | 90       | 38          | 145         |
| Diethylphthalate            | 1   | 90.3525         | 0           | 100                   | 90       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.5264         | 0           | 100                   | 98       | 40          | 150         |
| Atrazine                    | 1   | 100.6168        | 0           | 100                   | 101      | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 118.5253        | 0           | 100                   | 119      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 76.0463  | 0 | 100 | 76  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 92.6807  | 0 | 100 | 93  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 90.3439  | 0 | 100 | 90  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.3596  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 97.6617  | 0 | 100 | 98  | 50 | 130 |
| Pentachlorophenol          | 1 | 95.0418  | 0 | 100 | 95  | 38 | 152 |
| Phenanthrene               | 1 | 91.2947  | 0 | 100 | 91  | 65 | 120 |
| Anthracene                 | 1 | 91.7377  | 0 | 100 | 92  | 43 | 120 |
| Carbazole                  | 1 | 106.2112 | 0 | 100 | 106 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.5892  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 92.048   | 0 | 100 | 92  | 43 | 121 |
| Pyrene                     | 1 | 94.7814  | 0 | 100 | 95  | 70 | 120 |
| Benzidine                  | 1 | 16.9657  | 0 | 100 | 17  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 90.2116  | 0 | 100 | 90  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 90.5397  | 0 | 100 | 91  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 91.8853  | 0 | 100 | 92  | 42 | 133 |
| Chrysene                   | 1 | 87.2932  | 0 | 100 | 87  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 89.4472  | 0 | 100 | 89  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 85.1444  | 0 | 100 | 85  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 88.9253  | 0 | 100 | 89  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 100.1275 | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 90.9848  | 0 | 100 | 91  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.6849  | 0 | 100 | 94  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 94.6008  | 0 | 100 | 95  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 93.6662  | 0 | 100 | 94  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

SampleID : WMB71479(MS)  
Data File: 7M95306.D  
Acq On : 10/19/18 14:26

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 7M\_1008.M  
Qt On : 10/19/18 14:52  
Qt Upd On: 10/17/18 08:02

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| -----                         |        |      |          |          |        |          |
| Internal Standards            |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)       | 2.504  | 96   | 85204    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4    | 5.742  | 152  | 128861   | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8            | 6.773  | 136  | 456023   | 40.00    | ng     | 0.02     |
| 50) Acenaphthene-d10          | 8.205  | 164  | 252821   | 40.00    | ng     | 0.03     |
| 77) Phenanthrene-d10          | 9.636  | 188  | 436408   | 40.00    | ng     | 0.02     |
| 91) Chrysene-d12              | 12.649 | 240  | 418283   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12             | 14.273 | 264  | 364321   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds   |        |      |          |          |        |          |
| 11) 2-Fluorophenol            | 4.534  | 112  | 177476   | 38.83    | ng     | -0.01    |
| Spiked Amount 100.000         |        |      | Recovery | =        | 38.83% |          |
| 16) Phenol-d5                 | 5.421  | 99   | 169288   | 26.15    | ng     | -0.01    |
| Spiked Amount 100.000         |        |      | Recovery | =        | 26.15% |          |
| 32) Nitrobenzene-d5           | 6.196  | 128  | 49461    | 34.55    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 69.10% |          |
| 55) 2-Fluorobiphenyl          | 7.622  | 172  | 288321   | 35.92    | ng     | 0.03     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 71.84% |          |
| 80) 2,4,6-Tribromophenol      | 8.931  | 330  | 76403    | 72.51    | ng     | 0.03     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 72.51% |          |
| 94) Terphenyl-d14             | 11.415 | 244  | 281927   | 39.28    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 78.56% |          |
| Target Compounds              |        |      |          |          |        |          |
| 8) 1,4-Dioxane                | 2.542  | 88   | 138108   | 69.0027  | ng     | 91       |
| 9) Pyridine                   | 2.969  | 79   | 191763   | 36.2670  | ng     | 61       |
| 10) N-Nitrosodimethylamine    | 2.894  | 74   | 179514   | 58.1228  | ng     | 65       |
| 12) Benzaldehyde              | 5.362  | 77   | 324202   | 136.4587 | ng     | 73       |
| 13) Aniline                   | 5.459  | 93   | 471620   | 78.1613  | ng     | 65       |
| 14) Pentachloroethane         | 5.501  | 117  | 136518   | 88.4306  | ng     | 83       |
| 15) bis(2-Chloroethyl)ether   | 5.517  | 93   | 365853   | 78.9094  | ng     | 75       |
| 17) Phenol                    | 5.437  | 94   | 251524   | 39.1220  | ng     | 77       |
| 18) 2-Chlorophenol            | 5.560  | 128  | 359598   | 75.2627  | ng     | 77       |
| 19) N-Decane                  | 5.619  | 57   | 309733   | 75.1357  | ng     | 84       |
| 20) 1,3-Dichlorobenzene       | 5.694  | 146  | 372302   | 72.4267  | ng     | 98       |
| 22) 1,4-Dichlorobenzene       | 5.758  | 146  | 382827   | 81.4073  | ng     | 97       |
| 23) 1,2-Dichlorobenzene       | 5.886  | 146  | 362877   | 81.6788  | ng     | 98       |
| 24) Benzyl alcohol            | 5.854  | 108  | 234046   | 82.4281  | ng     | 70       |
| 25) bis(2-chloroisopropyl)... | 5.977  | 45   | 319364   | 73.6381  | ng     | 95       |
| 26) 2-Methylphenol            | 5.950  | 108  | 302206   | 77.8179  | ng     | 97       |
| 27) Acetophenone              | 6.073  | 105  | 592779   | 106.7914 | ng     | 68       |
| 28) Hexachloroethane          | 6.164  | 117  | 137410   | 79.8436  | ng     | 83       |
| 29) N-Nitroso-di-n-propyla... | 6.078  | 70   | 213016   | 78.9820  | ng     | 92       |
| 30) 3&4-Methylphenol          | 6.073  | 108  | 282175   | 72.7990  | ng     | 85       |
| 33) Nitrobenzene              | 6.212  | 77   | 350648   | 92.0091  | ng     | 73       |
| 34) Isophorone                | 6.404  | 82   | 631626   | 89.7629  | ng     | 84       |
| 35) 2-Nitrophenol             | 6.468  | 139  | 194967   | 92.9104  | ng     | 77       |
| 36) 2,4-Dimethylphenol        | 6.495  | 107  | 331482   | 87.4787  | ng     | 89       |
| 37) Benzoic Acid              | 6.548  | 105  | 77088m   | 21.5320  | ng     |          |
| 38) bis(2-Chloroethoxy)met... | 6.575  | 93   | 413738   | 86.8441  | ng     | 96       |
| 39) 2,4-Dichlorophenol        | 6.655  | 162  | 292463   | 91.7642  | ng     | 88       |
| 40) 1,2,4-Trichlorobenzene    | 6.725  | 180  | 310957   | 87.4633  | ng     | 97       |
| 41) Naphthalene               | 6.789  | 128  | 1013169  | 83.3188  | ng     | 99       |
| 42) 4-Chloroaniline           | 6.826  | 127  | 469887m  | 114.0252 | ng     |          |
| 43) Hexachlorobutadiene       | 6.890  | 225  | 156469   | 86.7801  | ng     | 97       |
| 44) Caprolactam               | 7.093  | 113  | 69641    | 52.5262  | ng     | 63       |
| 45) 4-Chloro-3-methylphenol   | 7.195  | 107  | 296035   | 93.2287  | ng     | 79       |
| 46) 2-Methylnaphthalene       | 7.334  | 142  | 746798   | 94.1586  | ng     | 99       |
| 47) 1-Methylnaphthalene       | 7.414  | 142  | 881608   | 114.3009 | ng     | 92       |
| 49) 1,1'-Biphenyl             | 7.708  | 154  | 883035   | 95.4840  | ng     | 95       |
| 51) 1,2,4,5-Tetrachloroben... | 7.467  | 216  | 381611   | 114.2755 | ng     | 98       |
| 52) Hexachlorocyclopentadiene | 7.462  | 237  | 168754   | 101.6695 | ng     | 98       |
| 53) 2,4,6-Trichlorophenol     | 7.553  | 196  | 222342   | 102.3739 | ng     | 99       |
| 54) 2,4,5-Trichlorophenol     | 7.585  | 196  | 208243   | 93.0770  | ng     | 98       |
| 56) 2-Chloronaphthalene       | 7.729  | 162  | 616722   | 89.7704  | ng     | 92       |
| 57) 1,4-Dimethylnaphthalene   | 8.012  | 156  | 576552   | 96.6729  | ng     | 86       |
| 59) Diphenyl Ether            | 7.799  | 170  | 586711   | 114.7718 | ng     | 75       |
| 60) 2-Nitroaniline            | 7.804  | 65   | 219943   | 106.9342 | ng     | 48       |
| 61) Coumarin                  | 7.986  | 146  | 309205   | 107.9373 | ng     | 86       |
| 62) Acenaphthylene            | 8.082  | 152  | 1010082  | 98.4582  | ng     | 98       |
| 63) Dimethylphthalate         | 7.953  | 163  | 699328   | 92.7380  | ng     | 99       |
| 64) 2,6-Dinitrotoluene        | 8.007  | 165  | 156262   | 95.9042  | ng     | 62       |
| 65) Acenaphthene              | 8.237  | 153  | 647257   | 92.2175  | ng     | 98       |
| 66) 3-Nitroaniline            | 8.151  | 138  | 209275   | 115.9170 | ng     | 75       |
| 67) 2,4-Dinitrophenol         | 8.242  | 184  | 95398    | 112.3621 | ng     | 42       |



## Quantitation Report (QT Reviewed)

SampleID : WMB71479(MS) Operator : AH/JB Qt Meth : 7M.1008.M  
 Data File: 7M95306.D Sam Mult : 1 Vial# : 3 Qt On : 10/19/18 14:52  
 Acq On : 10/19/18 14:26 Misc : A,BNA Qt Upd On: 10/17/18 08:02

Data Path : G:\GCMSData\2018\GCMS\_7\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_7\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 68) Dibenzofuran               | 8.386  | 168  | 960940   | 97.1048  | ng    | 85       |
| 69) 2,4-Dinitrotoluene         | 8.360  | 165  | 217133   | 92.2794  | ng    | 59       |
| 70) 4-Nitrophenol              | 8.274  | 65   | 63574    | 50.0916  | ng    | 87       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.493  | 232  | 173863   | 86.9346  | ng    | 85       |
| 72) Fluorene                   | 8.707  | 166  | 702339   | 90.6281  | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.696  | 204  | 322190   | 90.2356  | ng    | 87       |
| 74) Diethylphthalate           | 8.584  | 149  | 684525   | 90.3525  | ng    | 96       |
| 75) 4-Nitroaniline             | 8.707  | 138  | 216711   | 97.5264  | ng    | 68       |
| 76) Atrazine                   | 9.326  | 200  | 229178   | 100.6168 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.739  | 198  | 132462   | 118.5253 | ng    | 68       |
| 79) n-Nitrosodiphenylamine     | 8.803  | 169  | 515222   | 76.0463  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.851  | 77   | 715688   | 92.6807  | ng    | 78       |
| 82) 4-Bromophenyl-phenylether  | 9.177  | 248  | 194043   | 90.3439  | ng    | 79       |
| 83) Hexachlorobenzene          | 9.246  | 284  | 197130   | 90.3596  | ng    | 65       |
| 84) N-Octadecane               | 9.519  | 57   | 405828   | 97.6617  | ng    | 64       |
| 85) Pentachlorophenol          | 9.433  | 266  | 131750   | 95.0418  | ng    | 98       |
| 86) Phenanthrene               | 9.663  | 178  | 1076577  | 91.2947  | ng    | 99       |
| 87) Anthracene                 | 9.716  | 178  | 1096904  | 91.7377  | ng    | 99       |
| 88) Carbazole                  | 9.882  | 167  | 1159950  | 106.2112 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.267 | 149  | 1177812  | 94.5892  | ng    | 97       |
| 90) Fluoranthene               | 10.972 | 202  | 1124423  | 92.0480  | ng    | 93       |
| 92) Pyrene                     | 11.228 | 202  | 1147838  | 94.7814  | ng    | 94       |
| 93) Benzidine                  | 11.116 | 184  | 70576    | 16.9657  | ng    | 90       |
| 97) Butylbenzylphthalate       | 12.003 | 149  | 509783   | 90.2116  | ng    | 75       |
| 99) 3,3'-Dichlorobenzidine     | 12.612 | 252  | 319556   | 90.5397  | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.639 | 228  | 1057241  | 91.8853  | ng    | 99       |
| 101) Chrysene                  | 12.681 | 228  | 924915   | 87.2932  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.703 | 149  | 686566   | 89.4472  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.456 | 149  | 1103490  | 85.1444  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.867 | 252  | 956081   | 88.9253  | ng    | 95       |
| 106) Benzo[k]fluoranthene      | 13.899 | 252  | 1004064m | 100.1275 | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 899109   | 90.9848  | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.539 | 276  | 989695   | 93.6849  | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.561 | 278  | 832182   | 94.6008  | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.897 | 276  | 829397   | 93.6662  | ng    | 82       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: SMB71480**

8101509 0576

| Data File                   |     | Sample ID:   |             | Analysis Date         |          |             |             |
|-----------------------------|-----|--------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71458.D    |     | SMB71480(MS) |             | 10/19/2018 6:08:00 PM |          |             |             |
| Non Spike(If applicable):   |     |              |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |              |             |                       |          |             |             |
| Method: 8270D               |     | Matrix: Soil |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc   | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                    | 1   | 28.202       | 0           | 50                    | 56       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 39.3025      | 0           | 50                    | 79       | 50          | 130         |
| Benzaldehyde                | 1   | 72.143       | 0           | 50                    | 144      | 20          | 220         |
| Aniline                     | 1   | 23.9218      | 0           | 50                    | 48       | 20          | 150         |
| Pentachloroethane           | 1   | 44.8925      | 0           | 50                    | 90       | 50          | 130         |
| bis(2-Chloroethyl)ether     | 1   | 42.9403      | 0           | 50                    | 86       | 50          | 130         |
| Phenol                      | 1   | 91.3638      | 0           | 100                   | 91       | 20          | 150         |
| 2-Chlorophenol              | 1   | 90.7398      | 0           | 100                   | 91       | 50          | 130         |
| N-Decane                    | 1   | 38.1105      | 0           | 50                    | 76       | 20          | 130         |
| 1,3-Dichlorobenzene         | 1   | 40.6487      | 0           | 50                    | 81       | 60          | 130         |
| 1,4-Dichlorobenzene         | 1   | 40.0966      | 0           | 50                    | 80       | 60          | 130         |
| 1,2-Dichlorobenzene         | 1   | 40.3895      | 0           | 50                    | 81       | 50          | 130         |
| Benzyl alcohol              | 1   | 43.4013      | 0           | 50                    | 87       | 20          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 35.8778      | 0           | 50                    | 72       | 40          | 130         |
| 2-Methylphenol              | 1   | 90.1464      | 0           | 100                   | 90       | 50          | 130         |
| Acetophenone                | 1   | 50.4493      | 0           | 50                    | 101      | 50          | 130         |
| Hexachloroethane            | 1   | 41.5687      | 0           | 50                    | 83       | 50          | 130         |
| N-Nitroso-di-n-propylamine  | 1   | 44.6399      | 0           | 50                    | 89       | 40          | 130         |
| 3&4-Methylphenol            | 1   | 99.9003      | 0           | 100                   | 100      | 70          | 130         |
| Nitrobenzene                | 1   | 42.5702      | 0           | 50                    | 85       | 70          | 130         |
| Isophorone                  | 1   | 42.2394      | 0           | 50                    | 84       | 60          | 130         |
| 2-Nitrophenol               | 1   | 83.9975      | 0           | 100                   | 84       | 70          | 130         |
| 2,4-Dimethylphenol          | 1   | 87.1553      | 0           | 100                   | 87       | 50          | 130         |
| Benzoic Acid                | 1   | 46.3262      | 0           | 100                   | 46       | 20          | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 43.5543      | 0           | 50                    | 87       | 60          | 130         |
| 2,4-Dichlorophenol          | 1   | 89.009       | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene      | 1   | 42.1855      | 0           | 50                    | 84       | 50          | 130         |
| Naphthalene                 | 1   | 42.4433      | 0           | 50                    | 85       | 50          | 130         |
| 4-Chloroaniline             | 1   | 29.9013      | 0           | 50                    | 60       | 10          | 150         |
| Hexachlorobutadiene         | 1   | 40.0143      | 0           | 50                    | 80       | 60          | 130         |
| Caprolactam                 | 1   | 51.6812      | 0           | 50                    | 103      | 50          | 130         |
| 4-Chloro-3-methylphenol     | 1   | 92.0829      | 0           | 100                   | 92       | 50          | 130         |
| 2-Methylnaphthalene         | 1   | 42.5668      | 0           | 50                    | 85       | 70          | 130         |
| 1-Methylnaphthalene         | 1   | 49.1462      | 0           | 50                    | 98       | 70          | 130         |
| 1,1'-Biphenyl               | 1   | 41.6084      | 0           | 50                    | 83       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 46.9705      | 0           | 50                    | 94       | 70          | 130         |
| Hexachlorocyclopentadiene   | 1   | 36.9806      | 0           | 50                    | 74       | 20          | 160         |
| 2,4,6-Trichlorophenol       | 1   | 95.1549      | 0           | 100                   | 95       | 70          | 130         |
| 2,4,5-Trichlorophenol       | 1   | 91.3435      | 0           | 100                   | 91       | 70          | 130         |
| 2-Chloronaphthalene         | 1   | 43.1069      | 0           | 50                    | 86       | 70          | 130         |
| 1,4-Dimethylnaphthalene     | 1   | 42.1061      | 0           | 50                    | 84       | 70          | 130         |
| Diphenyl Ether              | 1   | 49.3646      | 0           | 50                    | 99       | 70          | 130         |
| 2-Nitroaniline              | 1   | 44.2043      | 0           | 50                    | 88       | 50          | 130         |
| Coumarin                    | 1   | 45.5689      | 0           | 50                    | 91       | 70          | 130         |
| Acenaphthylene              | 1   | 45.9629      | 0           | 50                    | 92       | 70          | 130         |
| Dimethylphthalate           | 1   | 43.8624      | 0           | 50                    | 88       | 70          | 130         |
| 2,6-Dinitrotoluene          | 1   | 45.4201      | 0           | 50                    | 91       | 70          | 130         |
| Acenaphthene                | 1   | 44.2505      | 0           | 50                    | 89       | 50          | 130         |
| 3-Nitroaniline              | 1   | 30.3417      | 0           | 50                    | 61       | 10          | 130         |
| 2,4-Dinitrophenol           | 1   | 68.1514      | 0           | 100                   | 68       | 20          | 150         |
| Dibenzofuran                | 1   | 42.0026      | 0           | 50                    | 84       | 70          | 130         |
| 2,4-Dinitrotoluene          | 1   | 40.1025      | 0           | 50                    | 80       | 40          | 130         |
| 4-Nitrophenol               | 1   | 80.0494      | 0           | 100                   | 80       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 82.5607      | 0           | 100                   | 83       | 70          | 130         |
| Fluorene                    | 1   | 43.9972      | 0           | 50                    | 88       | 50          | 130         |
| 4-Chlorophenyl-phenylether  | 1   | 43.4783      | 0           | 50                    | 87       | 70          | 130         |
| Diethylphthalate            | 1   | 44.1763      | 0           | 50                    | 88       | 70          | 130         |
| 4-Nitroaniline              | 1   | 41.0915      | 0           | 50                    | 82       | 50          | 130         |
| Atrazine                    | 1   | 50.3632      | 0           | 50                    | 101      | 50          | 130         |
| 4,6-Dinitro-2-methylphenol  | 1   | 83.5957      | 0           | 100                   | 84       | 70          | 130         |
| n-Nitrosodiphenylamine      | 1   | 36.3496      | 0           | 50                    | 73       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 47.5244 | 0 | 50  | 95  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 45.8316 | 0 | 50  | 92  | 70 | 130 |
| Hexachlorobenzene          | 1 | 43.1999 | 0 | 50  | 86  | 70 | 130 |
| N-Octadecane               | 1 | 41.2285 | 0 | 50  | 82  | 70 | 130 |
| Pentachlorophenol          | 1 | 92.4051 | 0 | 100 | 92  | 40 | 130 |
| Phenanthrene               | 1 | 45.534  | 0 | 50  | 91  | 70 | 130 |
| Anthracene                 | 1 | 45.1579 | 0 | 50  | 90  | 70 | 130 |
| Carbazole                  | 1 | 43.0496 | 0 | 50  | 86  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 43.224  | 0 | 50  | 86  | 70 | 130 |
| Fluoranthene               | 1 | 46.8452 | 0 | 50  | 94  | 70 | 130 |
| Pyrene                     | 1 | 45.1072 | 0 | 50  | 90  | 50 | 130 |
| Benzidine                  | 1 | 0       | 0 | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 46.2318 | 0 | 50  | 92  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 21.664  | 0 | 50  | 43  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 43.0244 | 0 | 50  | 86  | 70 | 130 |
| Chrysene                   | 1 | 40.6083 | 0 | 50  | 81  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 45.6641 | 0 | 50  | 91  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 45.7069 | 0 | 50  | 91  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 45.6545 | 0 | 50  | 91  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 51.6746 | 0 | 50  | 103 | 70 | 130 |
| Benzo[a]pyrene             | 1 | 42.5649 | 0 | 50  | 85  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 46.1916 | 0 | 50  | 92  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 47.0664 | 0 | 50  | 94  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 43.7819 | 0 | 50  | 88  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

SampleID : SMB71480(MS)  
Data File: 10M71458.D  
Acq On : 10/19/18 18:08

Operator : AH/JB  
Sam Mult : 1 Vial# : 21  
Misc : S,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/22/18 10:37  
Qt Upd On: 10/19/18 15:07

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.706  | 96   | 36044      | 40.00   | ng    | -0.02    |
| 21) 1,4-Dichlorobenzene-d4     | 5.894  | 152  | 75473      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.894  | 136  | 276810     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.333  | 164  | 175960     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 311419     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 309669     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 286195     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 249137     | 119.40  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 119.40% |       |          |
| 16) Phenol-d5                  | 5.583  | 99   | 348826     | 123.52  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 123.52% |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 45218      | 50.84   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 101.68% |       |          |
| 55) 2-Fluorobiphenyl           | 7.733  | 172  | 309573     | 54.95   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 109.90% |       |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 83895      | 115.37  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 115.37% |       |          |
| 94) Terphenyl-d14              | 11.601 | 244  | 330387     | 58.23   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 116.46% |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.754  | 88   | 20651      | 23.7738 | ng    | 92       |
| 9) Pyridine                    | 3.246  | 79   | 55112      | 28.2020 | ng    | 70       |
| 10) N-Nitrosodimethylamine     | 3.176  | 74   | 47209      | 39.3025 | ng    | 87       |
| 12) Benzaldehyde               | 5.524  | 77   | 72455      | 72.1430 | ng    | 72       |
| 13) Aniline                    | 5.615  | 93   | 69637      | 23.9218 | ng    | 10       |
| 14) Pentachloroethane          | 5.658  | 117  | 35441      | 44.8925 | ng    | 74       |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 89575      | 42.9403 | ng    | 76       |
| 17) Phenol                     | 5.599  | 94   | 255539m    | 91.3638 | ng    |          |
| 18) 2-Chlorophenol             | 5.717  | 128  | 211977     | 90.7398 | ng    | 77       |
| 19) N-Decane                   | 5.749  | 57   | 69873m     | 38.1105 | ng    |          |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 105295     | 40.6487 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.910  | 146  | 111358     | 40.0966 | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 6.033  | 146  | 109610     | 40.3895 | ng    | 93       |
| 24) Benzyl alcohol             | 6.006  | 108  | 66463      | 43.4013 | ng    | 79       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 92434      | 35.8778 | ng    | 79       |
| 26) 2-Methylphenol             | 6.097  | 108  | 197865     | 90.1464 | ng    | 95       |
| 27) Acetophenone               | 6.220  | 105  | 156815     | 50.4493 | ng    | 90       |
| 28) Hexachloroethane           | 6.305  | 117  | 44708      | 41.5687 | ng    | 87       |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 64664      | 44.6399 | ng    | 80       |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 208267     | 99.9003 | ng    | 89       |
| 33) Nitrobenzene               | 6.359  | 77   | 102382     | 42.5702 | ng    | 77       |
| 34) Isophorone                 | 6.541  | 82   | 174845     | 42.2394 | ng    | 82       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 110556     | 83.9975 | ng    | 88       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 214128     | 87.1553 | ng    | 97       |
| 37) Benzoic Acid               | 6.707  | 105  | 88484      | 46.3262 | ng    | 89       |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 113093     | 43.5543 | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 190793     | 89.0090 | ng    | 82       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 98027      | 42.1855 | ng    | 95       |
| 41) Naphthalene                | 6.915  | 128  | 312516     | 42.4433 | ng    | 100      |
| 42) 4-Chloroaniline            | 6.953  | 127  | 71165      | 29.9013 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 52052      | 40.0143 | ng    | 92       |
| 44) Caprolactam                | 7.231  | 113  | 38888      | 51.6812 | ng    | 52       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 180845     | 92.0829 | ng    | 79       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 206564     | 42.5668 | ng    | 97       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 234589     | 49.1462 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.530  | 142  | 438560m    | 91.2848 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 250925     | 41.6084 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 113289     | 46.9705 | ng    | 100      |
| 52) Hexachlorocyclopentadiene  | 7.568  | 237  | 32266      | 36.9806 | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.669  | 196  | 139435     | 95.1549 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 142169     | 91.3435 | ng    | 96       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 200293     | 43.1069 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 161475     | 42.1061 | ng    | 82       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 161475     | 42.1061 | ng    | 82       |
| 59) Diphenyl Ether             | 7.905  | 170  | 169940     | 49.3646 | ng    | 83       |
| 60) 2-Nitroaniline             | 7.926  | 65   | 72990      | 44.2043 | ng    | 45       |
| 61) Coumarin                   | 8.113  | 146  | 77969      | 45.5689 | ng    | 65       |
| 62) Acenaphthylene             | 8.210  | 152  | 314991     | 45.9629 | ng    | 98       |
| 63) Dimethylphthalate          | 8.065  | 163  | 238030     | 43.8624 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 51295      | 45.4201 | ng    | 74       |
| 65) Acenaphthene               | 8.359  | 153  | 213850     | 44.2505 | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : SMB71480(MS) Operator : AH/JB Qt Meth : 10M\_1008.M  
 Data File: 10M71458.D Sam Mult : 1 Vial# : 21 Qt On : 10/22/18 10:37  
 Acq On : 10/19/18 18:08 Misc : S,BNA Qt Upd On: 10/19/18 15:07

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 66) 3-Nitroaniline             | 8.279  | 138  | 42156    | 30.3417 | ng    | 78       |
| 67) 2,4-Dinitrophenol          | 8.381  | 184  | 44875    | 68.1514 | ng    | 29       |
| 68) Dibenzofuran               | 8.514  | 168  | 294056   | 42.0026 | ng    | 91       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 71172    | 40.1025 | ng    | 63       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 79547    | 80.0494 | ng    | 45       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.621  | 232  | 111964   | 82.5607 | ng    | 87       |
| 72) Fluorene                   | 8.841  | 166  | 243779   | 43.9972 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.825  | 204  | 114945   | 43.4783 | ng    | 83       |
| 74) Diethylphthalate           | 8.702  | 149  | 236956   | 44.1763 | ng    | 95       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 61627    | 41.0915 | ng    | 93       |
| 76) Atrazine                   | 9.466  | 200  | 90654    | 50.3632 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 77940    | 83.5957 | ng    | 58       |
| 79) n-Nitrosodiphenylamine     | 8.937  | 169  | 170671   | 36.3496 | ng    | 98       |
| 81) 1,2-Diphenylhydrazine      | 8.980  | 77   | 272241   | 47.5244 | ng    | 91       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 66100    | 45.8316 | ng    | 84       |
| 83) Hexachlorobenzene          | 9.392  | 284  | 66917    | 43.1999 | ng    | 67       |
| 84) N-Octadecane               | 9.638  | 57   | 108635   | 41.2285 | ng    | 76       |
| 85) Pentachlorophenol          | 9.589  | 266  | 74466    | 92.4051 | ng    | 96       |
| 86) Phenanthrene               | 9.825  | 178  | 374652   | 45.5340 | ng    | 99       |
| 87) Anthracene                 | 9.884  | 178  | 377091   | 45.1579 | ng    | 98       |
| 88) Carbazole                  | 10.049 | 167  | 327059   | 43.0496 | ng    | 97       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 417066   | 43.2240 | ng    | 97       |
| 90) Fluoranthene               | 11.162 | 202  | 406514   | 46.8452 | ng    | 85       |
| 92) Pyrene                     | 11.429 | 202  | 430508   | 45.1072 | ng    | 81       |
| 93) Benzidine                  | 11.317 | 184  | 5559     | 1.5553  | ng    | 84       |
| 97) Butylbenzylphthalate       | 12.184 | 149  | 184950   | 46.2318 | ng    | 77       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 62615    | 21.6640 | ng    | 92       |
| 100) Benzo[a]anthracene        | 12.847 | 228  | 369664   | 43.0244 | ng    | 99       |
| 101) Chrysene                  | 12.890 | 228  | 342637   | 40.6083 | ng    | 100      |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 270510   | 45.6641 | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 440181   | 45.7069 | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 354595m  | 45.6545 | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 395404   | 51.6746 | ng    | 93       |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 321036   | 42.5649 | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.858 | 276  | 366709   | 46.1916 | ng    | 89       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 309961   | 47.0664 | ng    | 89       |
| 110) Benzo[g,h,i]perylene      | 16.249 | 276  | 306958   | 43.7819 | ng    | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71496**

**8101509 0581**

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105911.D    |     | WMB71496(MS)    |             | 10/22/2018 2:01:00 PM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 64.7632         | 0           | 100                   | 65       | 20          | 160         |
| Pyridine                    | 1   | 60.6331         | 0           | 100                   | 61       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 65.3107         | 0           | 100                   | 65       | 20          | 150         |
| Benzaldehyde                | 1   | 148.3097        | 0           | 100                   | 148      | 20          | 234         |
| Aniline                     | 1   | 91.8636         | 0           | 100                   | 92       | 20          | 150         |
| Pentachloroethane           | 1   | 94.2442         | 0           | 100                   | 94       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 90.3106         | 0           | 100                   | 90       | 43          | 126         |
| Phenol                      | 1   | 49.6041         | 0           | 100                   | 50       | 17          | 120         |
| 2-Chlorophenol              | 1   | 94.364          | 0           | 100                   | 94       | 36          | 120         |
| N-Decane                    | 1   | 84.68           | 0           | 100                   | 85       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 88.6504         | 0           | 100                   | 89       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 92.9726         | 0           | 100                   | 93       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 93.1074         | 0           | 100                   | 93       | 25          | 130         |
| Benzyl alcohol              | 1   | 91.4135         | 0           | 100                   | 91       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 84.4418         | 0           | 100                   | 84       | 63          | 139         |
| 2-Methylphenol              | 1   | 93.8456         | 0           | 100                   | 94       | 35          | 130         |
| Acetophenone                | 1   | 104.0474        | 0           | 100                   | 104      | 50          | 130         |
| Hexachloroethane            | 1   | 92.1418         | 0           | 100                   | 92       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 91.4586         | 0           | 100                   | 91       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 82.3905         | 0           | 100                   | 82       | 30          | 130         |
| Nitrobenzene                | 1   | 97.577          | 0           | 100                   | 98       | 54          | 158         |
| Isophorone                  | 1   | 99.5552         | 0           | 100                   | 100      | 47          | 180         |
| 2-Nitrophenol               | 1   | 105.8593        | 0           | 100                   | 106      | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 93.6033         | 0           | 100                   | 94       | 42          | 120         |
| Benzoic Acid                | 1   | 17.7912         | 0           | 100                   | 18       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.5852         | 0           | 100                   | 96       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 104.6322        | 0           | 100                   | 105      | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 96.3014         | 0           | 100                   | 96       | 57          | 130         |
| Naphthalene                 | 1   | 90.9299         | 0           | 100                   | 91       | 36          | 120         |
| 4-Chloroaniline             | 1   | 114.3614        | 0           | 100                   | 114      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 95.0275         | 0           | 100                   | 95       | 38          | 120         |
| Caprolactam                 | 1   | 43.5698         | 0           | 100                   | 44       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 105.7048        | 0           | 100                   | 106      | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 98.4589         | 0           | 100                   | 98       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 106.368         | 0           | 100                   | 106      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 89.388          | 0           | 100                   | 89       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 104.9541        | 0           | 100                   | 105      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 93.8181         | 0           | 100                   | 94       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 109.5392        | 0           | 100                   | 110      | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 108.5806        | 0           | 100                   | 109      | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 97.068          | 0           | 100                   | 97       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 85.7191         | 0           | 100                   | 86       | 50          | 130         |
| Diphenyl Ether              | 1   | 108.542         | 0           | 100                   | 109      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.4064         | 0           | 100                   | 97       | 40          | 150         |
| Coumarin                    | 1   | 100.0713        | 0           | 100                   | 100      | 1           | 180         |
| Acenaphthylene              | 1   | 109.3586        | 0           | 100                   | 109      | 54          | 126         |
| Dimethylphthalate           | 1   | 101.1701        | 0           | 100                   | 101      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.7275         | 0           | 100                   | 95       | 68          | 137         |
| Acenaphthene                | 1   | 98.8273         | 0           | 100                   | 99       | 60          | 132         |
| 3-Nitroaniline              | 1   | 107.7116        | 0           | 100                   | 108      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 96.7183         | 0           | 100                   | 97       | 1           | 173         |
| Dibenzofuran                | 1   | 98.2799         | 0           | 100                   | 98       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 98.2775         | 0           | 100                   | 98       | 48          | 127         |
| 4-Nitrophenol               | 1   | 49.3032         | 0           | 100                   | 49       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 99.8679         | 0           | 100                   | 100      | 50          | 130         |
| Fluorene                    | 1   | 101.3255        | 0           | 100                   | 101      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 99.928          | 0           | 100                   | 100      | 38          | 145         |
| Diethylphthalate            | 1   | 102.1885        | 0           | 100                   | 102      | 1           | 120         |
| 4-Nitroaniline              | 1   | 96.7903         | 0           | 100                   | 97       | 40          | 150         |
| Atrazine                    | 1   | 104.3752        | 0           | 100                   | 104      | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 116.3409        | 0           | 100                   | 116      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



## Recovery Data Laboratory Limits

QC Batch: WMB71496

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 85.2018  | 0 | 100 | 85  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 99.0804  | 0 | 100 | 99  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 107.5056 | 0 | 100 | 108 | 65 | 120 |
| Hexachlorobenzene          | 1 | 103.2218 | 0 | 100 | 103 | 8  | 142 |
| N-Octadecane               | 1 | 83.1169  | 0 | 100 | 83  | 50 | 130 |
| Pentachlorophenol          | 1 | 113.9555 | 0 | 100 | 114 | 38 | 152 |
| Phenanthrene               | 1 | 103.0639 | 0 | 100 | 103 | 65 | 120 |
| Anthracene                 | 1 | 103.0442 | 0 | 100 | 103 | 43 | 120 |
| Carbazole                  | 1 | 98.3681  | 0 | 100 | 98  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 99.5785  | 0 | 100 | 100 | 8  | 120 |
| Fluoranthene               | 1 | 100.4953 | 0 | 100 | 100 | 43 | 121 |
| Pyrene                     | 1 | 110.017  | 0 | 100 | 110 | 70 | 120 |
| Benzidine                  | 1 | 17.1392  | 0 | 100 | 17  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 102.5386 | 0 | 100 | 103 | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 109.6232 | 0 | 100 | 110 | 8  | 213 |
| Benzo[a]anthracene         | 1 | 105.313  | 0 | 100 | 105 | 42 | 133 |
| Chrysene                   | 1 | 95.9479  | 0 | 100 | 96  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 101.3916 | 0 | 100 | 101 | 29 | 137 |
| Di-n-octylphthalate        | 1 | 101.7064 | 0 | 100 | 102 | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 111.5369 | 0 | 100 | 112 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 113.9547 | 0 | 100 | 114 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 100.5125 | 0 | 100 | 101 | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 101.877  | 0 | 100 | 102 | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 101.875  | 0 | 100 | 102 | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 101.299  | 0 | 100 | 101 | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

8101509 0583

SampleID : WMB71496(MS)  
 Data File: 5M105911.D  
 Acq On : 10/22/18 14:01

Operator : AH/JB  
 Sam Mult : 1 Vial# : 17  
 Misc : A,BNA

Qt Meth : 5M 1000.1  
 Qt On : 10/22/18 14:46  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS 5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS 5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|----------|---------|----------|
| -----                          |        |      |          |          |         |          |
| Internal Standards             |        |      |          |          |         |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.526  | 96   | 53644    | 40.00    | ng      | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 95073    | 40.00    | ng      | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 357106   | 40.00    | ng      | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 205040   | 40.00    | ng      | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 339251   | 40.00    | ng      | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 340979   | 40.00    | ng      | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 275093   | 40.00    | ng      | 0.00     |
| System Monitoring Compounds    |        |      |          |          |         |          |
| 11) 2-Fluorophenol             | 4.546  | 112  | 252306   | 90.60    | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 90.60%  |          |
| 16) Phenol-d5                  | 5.432  | 99   | 258986   | 60.30    | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 60.30%  |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 78446    | 74.44    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 148.88% |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 464390   | 70.81    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 141.62% |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 101156   | 143.98   | ng      | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery | =        | 143.98% |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 462322   | 84.77    | ng      | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery | =        | 169.54% |          |
| Target Compounds               |        |      |          |          |         |          |
| 8) 1,4-Dioxane                 | 2.564  | 88   | 88735    | 64.7632  | ng      | 84       |
| 9) Pyridine                    | 3.028  | 79   | 205758   | 60.6331  | ng      | 77       |
| 10) N-Nitrosodimethylamine     | 2.959  | 74   | 126188   | 65.3107  | ng      | 83       |
| 12) Benzaldehyde               | 5.374  | 77   | 240811   | 148.3097 | ng      | 79       |
| 13) Aniline                    | 5.464  | 93   | 425321   | 91.8636  | ng      | 56       |
| 14) Pentachloroethane          | 5.502  | 117  | 100911   | 94.2442  | ng      | 80       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 303785   | 90.3106  | ng      | 82       |
| 17) Phenol                     | 5.443  | 94   | 221092m  | 49.6041  | ng      |          |
| 18) 2-Chlorophenol             | 5.561  | 128  | 302436   | 94.3640  | ng      | 83       |
| 19) N-Decane                   | 5.598  | 57   | 311593   | 84.6800  | ng      | 89       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 318956m  | 88.6504  | ng      |          |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 330259   | 92.9726  | ng      | 96       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 307493   | 93.1074  | ng      | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 177881   | 91.4135  | ng      | 76       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 378568   | 84.4418  | ng      | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 267918   | 93.8456  | ng      | 98       |
| 27) Acetophenone               | 6.073  | 105  | 432962   | 104.0474 | ng      | 81       |
| 28) Hexachloroethane           | 6.148  | 117  | 121614   | 92.1418  | ng      | 82       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 200390   | 91.4586  | ng      | 75       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 248821   | 82.3905  | ng      | 84       |
| 33) Nitrobenzene               | 6.212  | 77   | 321376   | 97.5770  | ng      | 80       |
| 34) Isophorone                 | 6.394  | 82   | 567594   | 99.5552  | ng      | 92       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 179736   | 105.8593 | ng      | 90       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 309125   | 93.6033  | ng      | 95       |
| 37) Benzoic Acid               | 6.570  | 105  | 29379m   | 17.7912  | ng      |          |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 354642   | 95.5852  | ng      | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 275978   | 104.6322 | ng      | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 267604   | 96.3014  | ng      | 97       |
| 41) Naphthalene                | 6.768  | 128  | 868322   | 90.9299  | ng      | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 356533   | 114.3614 | ng      | 91       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 141420   | 95.0275  | ng      | 96       |
| 44) Caprolactam                | 7.088  | 113  | 42077    | 43.5698  | ng      | 70       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 283673   | 105.7048 | ng      | 79       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 604302   | 98.4589  | ng      | 99       |
| 47) 1-Methylnaphthalene        | 7.377  | 142  | 642168   | 106.3680 | ng      | 93       |
| 48) Methylnaphthalenes (To...  | 7.297  | 142  | 1241299m | 205.1821 | ng      |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 643670   | 89.3880  | ng      | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 298241   | 104.9541 | ng      | 99       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 107422   | 93.8181  | ng      | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 191046   | 109.5392 | ng      | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 202244   | 108.5806 | ng      | 99       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 535338   | 97.0680  | ng      | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 396501   | 85.7191  | ng      | 92       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 396501   | 85.7191  | ng      | 92       |
| 59) Diphenyl Ether             | 7.746  | 170  | 444139   | 108.5420 | ng      | 84       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 221068   | 97.4064  | ng      | 57       |
| 61) Coumarin                   | 7.954  | 146  | 212367   | 100.0713 | ng      | 71       |
| 62) Acenaphthylene             | 8.045  | 152  | 906768   | 109.3586 | ng      | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 625015   | 101.1701 | ng      | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 136325   | 94.7275  | ng      | 70       |
| 65) Acenaphthene               | 8.194  | 153  | 564094   | 98.8273  | ng      | 95       |

SampleID : WMB71496(MS)  
 Data File: 5M105911.D  
 Acq On : 10/22/18 14:01

Operator : AH/JB  
 Sam Mult : 1 Vial# : 17  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/22/18 14:46  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|----------|-------|----------|
| 66)  | 3-Nitroaniline            | 8.125  | 138  | 164652   | 107.7116 | ng    | 73       |
| 67)  | 2,4-Dinitrophenol         | 8.216  | 184  | 67213    | 96.7183  | ng    | 46       |
| 68)  | Dibenzofuran              | 8.344  | 168  | 811955   | 98.2799  | ng    | 88       |
| 69)  | 2,4-Dinitrotoluene        | 8.328  | 165  | 193332   | 98.2775  | ng    | 71       |
| 70)  | 4-Nitrophenol             | 8.253  | 65   | 55425    | 49.3032  | ng    | 93       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.451  | 232  | 158088   | 99.8679  | ng    | 86       |
| 72)  | Fluorene                  | 8.664  | 166  | 638472   | 101.3255 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.654  | 204  | 285549   | 99.9280  | ng    | 86       |
| 74)  | Diethylphthalate          | 8.536  | 149  | 624794   | 102.1885 | ng    | 99       |
| 75)  | 4-Nitroaniline            | 8.691  | 138  | 178298   | 96.7903  | ng    | 79       |
| 76)  | Atrazine                  | 9.300  | 200  | 195515   | 104.3752 | ng    | 97       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.713  | 198  | 114028   | 116.3409 | ng    | 54       |
| 79)  | n-Nitrosodiphenylamine    | 8.771  | 169  | 451457   | 85.2018  | ng    | 99       |
| 81)  | 1,2-Diphenylhydrazine     | 8.809  | 77   | 748701   | 99.0804  | ng    | 88       |
| 82)  | 4-Bromophenyl-phenylether | 9.140  | 248  | 171525   | 107.5056 | ng    | 82       |
| 83)  | Hexachlorobenzene         | 9.209  | 284  | 158185   | 103.2218 | ng    | 71       |
| 84)  | N-Octadecane              | 9.460  | 57   | 377777   | 83.1169  | ng    | 86       |
| 85)  | Pentachlorophenol         | 9.407  | 266  | 95393    | 113.9555 | ng    | 96       |
| 86)  | Phenanthrene              | 9.642  | 178  | 948319   | 103.0639 | ng    | 99       |
| 87)  | Anthracene                | 9.695  | 178  | 951293   | 103.0442 | ng    | 99       |
| 88)  | Carbazole                 | 9.866  | 167  | 842413   | 98.3681  | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.240 | 149  | 1093688  | 99.5785  | ng    | 97       |
| 90)  | Fluoranthene              | 10.967 | 202  | 1000222  | 100.4953 | ng    | 96       |
| 92)  | Pyrene                    | 11.234 | 202  | 1069612  | 110.0170 | ng    | 89       |
| 93)  | Benzidine                 | 11.127 | 184  | 59200    | 17.1392  | ng    | 88       |
| 97)  | Butylbenzylphthalate      | 11.998 | 149  | 470433   | 102.5386 | ng    | 78       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.628 | 252  | 291796   | 109.6232 | ng    | 97       |
| 100) | Benzo[a]anthracene        | 12.655 | 228  | 971008   | 105.3130 | ng    | 99       |
| 101) | Chrysene                  | 12.698 | 228  | 847224   | 95.9479  | ng    | 99       |
| 102) | bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 679200   | 101.3916 | ng    | 96       |
| 104) | Di-n-octylphthalate       | 13.435 | 149  | 1078804  | 101.7064 | ng    | 100      |
| 105) | Benzo[b]fluoranthene      | 13.873 | 252  | 863741   | 111.5369 | ng    | 94       |
| 106) | Benzo[k]fluoranthene      | 13.900 | 252  | 887943m  | 113.9547 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.220 | 252  | 808760   | 100.5125 | ng    | 94       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.567 | 276  | 895334   | 101.8770 | ng    | 97       |
| 109) | Dibenzo[a,h]anthracene    | 15.577 | 278  | 770396   | 101.8750 | ng    | 94       |
| 110) | Benzo[g,h,i]perylene      | 15.930 | 276  | 753842   | 101.2990 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71497

8101509 0586

| Data File                   |     | Sample ID:      |             |               | Analysis Date         |             |             |
|-----------------------------|-----|-----------------|-------------|---------------|-----------------------|-------------|-------------|
| Spike or Dup: 5M105925.D    |     | WMB71497(MS)    |             |               | 10/23/2018 9:35:00 AM |             |             |
| Non Spike(If applicable):   |     |                 |             |               |                       |             |             |
| Inst Blank(If applicable):  |     |                 |             |               |                       |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             |               | QC Type: MBS          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc | Recovery              | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 53.0069         | 0           | 100           | 53                    | 20          | 160         |
| Pyridine                    | 1   | 21.1511         | 0           | 100           | 21                    | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 52.7103         | 0           | 100           | 53                    | 20          | 150         |
| Benzaldehyde                | 1   | 125.5905        | 0           | 100           | 126                   | 20          | 234         |
| Aniline                     | 1   | 55.2225         | 0           | 100           | 55                    | 20          | 150         |
| Pentachloroethane           | 1   | 75.9432         | 0           | 100           | 76                    | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 68.0886         | 0           | 100           | 68                    | 43          | 126         |
| Phenol                      | 1   | 32.1749         | 0           | 100           | 32                    | 17          | 120         |
| 2-Chlorophenol              | 1   | 66.2886         | 0           | 100           | 66                    | 36          | 120         |
| N-Decane                    | 1   | 63.4835         | 0           | 100           | 63                    | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 66.6863         | 0           | 100           | 67                    | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 71.2104         | 0           | 100           | 71                    | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 72.686          | 0           | 100           | 73                    | 25          | 130         |
| Benzyl alcohol              | 1   | 89.5934         | 0           | 100           | 90                    | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 65.1174         | 0           | 100           | 65                    | 63          | 139         |
| 2-Methylphenol              | 1   | 68.1506         | 0           | 100           | 68                    | 35          | 130         |
| Acetophenone                | 1   | 95.0871         | 0           | 100           | 95                    | 50          | 130         |
| Hexachloroethane            | 1   | 67.4131         | 0           | 100           | 67                    | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 74.3506         | 0           | 100           | 74                    | 14          | 198         |
| 3&4-Methylphenol            | 1   | 60.4851         | 0           | 100           | 60                    | 30          | 130         |
| Nitrobenzene                | 1   | 81.5761         | 0           | 100           | 82                    | 54          | 158         |
| Isophorone                  | 1   | 87.6215         | 0           | 100           | 88                    | 47          | 180         |
| 2-Nitrophenol               | 1   | 83.5626         | 0           | 100           | 84                    | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 69.639          | 0           | 100           | 70                    | 42          | 120         |
| Benzoic Acid                | 1   | 15.9754         | 0           | 100           | 16                    | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 81.5234         | 0           | 100           | 82                    | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 80.6862         | 0           | 100           | 81                    | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 79.4017         | 0           | 100           | 79                    | 57          | 130         |
| Naphthalene                 | 1   | 77.6791         | 0           | 100           | 78                    | 36          | 120         |
| 4-Chloroaniline             | 1   | 117.0319        | 0           | 100           | 117                   | 30          | 170         |
| Hexachlorobutadiene         | 1   | 78.1038         | 0           | 100           | 78                    | 38          | 120         |
| Caprolactam                 | 1   | 51.1066         | 0           | 100           | 51                    | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 82.6556         | 0           | 100           | 83                    | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 99.8825         | 0           | 100           | 100                   | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 101.9348        | 0           | 100           | 102                   | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 88.7145         | 0           | 100           | 89                    | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 97.1347         | 0           | 100           | 97                    | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 76.1999         | 0           | 100           | 76                    | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 85.0894         | 0           | 100           | 85                    | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 84.5973         | 0           | 100           | 85                    | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 85.9859         | 0           | 100           | 86                    | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 83.1301         | 0           | 100           | 83                    | 50          | 130         |
| Diphenyl Ether              | 1   | 101.9591        | 0           | 100           | 102                   | 50          | 140         |
| 2-Nitroaniline              | 1   | 95.7188         | 0           | 100           | 96                    | 40          | 150         |
| Coumarin                    | 1   | 99.6953         | 0           | 100           | 100                   | 1           | 180         |
| Acenaphthylene              | 1   | 94.4285         | 0           | 100           | 94                    | 54          | 126         |
| Dimethylphthalate           | 1   | 90.0501         | 0           | 100           | 90                    | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 85.2405         | 0           | 100           | 85                    | 68          | 137         |
| Acenaphthene                | 1   | 86.2264         | 0           | 100           | 86                    | 60          | 132         |
| 3-Nitroaniline              | 1   | 113.42          | 0           | 100           | 113                   | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 83.3186         | 0           | 100           | 83                    | 1           | 173         |
| Dibenzofuran                | 1   | 102.7905        | 0           | 100           | 103                   | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 88.1408         | 0           | 100           | 88                    | 48          | 127         |
| 4-Nitrophenol               | 1   | 29.9052         | 0           | 100           | 30                    | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 78.0003         | 0           | 100           | 78                    | 50          | 130         |
| Fluorene                    | 1   | 90.6357         | 0           | 100           | 91                    | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 89.6735         | 0           | 100           | 90                    | 38          | 145         |
| Diethylphthalate            | 1   | 86.1218         | 0           | 100           | 86                    | 1           | 120         |
| 4-Nitroaniline              | 1   | 102.9223        | 0           | 100           | 103                   | 40          | 150         |
| Atrazine                    | 1   | 100.394         | 0           | 100           | 100                   | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 98.1741         | 0           | 100           | 98                    | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 72.891   | 0 | 100 | 73  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 87.3321  | 0 | 100 | 87  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 93.2631  | 0 | 100 | 93  | 65 | 120 |
| Hexachlorobenzene          | 1 | 90.2638  | 0 | 100 | 90  | 8  | 142 |
| N-Octadecane               | 1 | 79.5228  | 0 | 100 | 80  | 50 | 130 |
| Pentachlorophenol          | 1 | 88.6987  | 0 | 100 | 89  | 38 | 152 |
| Phenanthrene               | 1 | 88.9204  | 0 | 100 | 89  | 65 | 120 |
| Anthracene                 | 1 | 90.9866  | 0 | 100 | 91  | 43 | 120 |
| Carbazole                  | 1 | 100.7168 | 0 | 100 | 101 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 86.2762  | 0 | 100 | 86  | 8  | 120 |
| Fluoranthene               | 1 | 90.3642  | 0 | 100 | 90  | 43 | 121 |
| Pyrene                     | 1 | 93.5296  | 0 | 100 | 94  | 70 | 120 |
| Benzidine                  | 1 | 21.1067  | 0 | 100 | 21  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 81.9251  | 0 | 100 | 82  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 87.7538  | 0 | 100 | 88  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 90.3826  | 0 | 100 | 90  | 42 | 133 |
| Chrysene                   | 1 | 84.5684  | 0 | 100 | 85  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 78.343   | 0 | 100 | 78  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 78.1737  | 0 | 100 | 78  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 100.5186 | 0 | 100 | 101 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 96.159   | 0 | 100 | 96  | 25 | 146 |
| Benzo[a]pyrene             | 1 | 88.7339  | 0 | 100 | 89  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.9515  | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 92.2738  | 0 | 100 | 92  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 91.0223  | 0 | 100 | 91  | 1  | 195 |

SampleID : WMB71497(MS)  
Data File: 5M105925.D  
Acq On : 10/23/18 09:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/23/18 10:12  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-23-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8(INT)         | 2.505  | 96   | 55324      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 96626      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 343299     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 201648     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 334137     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 338141     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 265110     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 98545      | 34.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 34.31%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 103621     | 23.39    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 23.39%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 35045      | 34.59    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 69.18%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 212402     | 32.93    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 65.86%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 47580      | 74.83    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 74.83%   |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 208155     | 38.49    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 76.98%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.537  | 88   | 74601      | 53.0069  | ng    | 84       |
| 9) Pyridine                    | 3.034  | 79   | 74024      | 21.1511  | ng    | 68       |
| 10) N-Nitrosodimethylamine     | 2.938  | 74   | 105032     | 52.7103  | ng    | 80       |
| 12) Benzaldehyde               | 5.368  | 77   | 210308     | 125.5905 | ng    | 76       |
| 13) Aniline                    | 5.459  | 93   | 259755     | 55.2225  | ng    | 55       |
| 14) Pentachloroethane          | 5.497  | 117  | 83862      | 75.9432  | ng    | 77       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 236208     | 68.0886  | ng    | 82       |
| 17) Phenol                     | 5.438  | 94   | 145900     | 32.1749  | ng    | 87       |
| 18) 2-Chlorophenol             | 5.555  | 128  | 219108     | 66.2886  | ng    | 84       |
| 19) N-Decane                   | 5.593  | 57   | 240913     | 63.4835  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 247445     | 66.6863  | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 257087     | 71.2104  | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 5.876  | 146  | 243971     | 72.6860  | ng    | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 177187     | 89.5934  | ng    | 69       |
| 25) bis(2-chloroisopropyl)...  | 5.961  | 45   | 296702     | 65.1174  | ng    | 99       |
| 26) 2-Methylphenol             | 5.945  | 108  | 197740     | 68.1506  | ng    | 98       |
| 27) Acetophenone               | 6.074  | 105  | 402140     | 95.0871  | ng    | 74       |
| 28) Hexachloroethane           | 6.148  | 117  | 90429      | 67.4131  | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.068  | 70   | 168079     | 74.3506  | ng    | 77       |
| 30) 3&4-Methylphenol           | 6.074  | 108  | 190263     | 60.4851  | ng    | 88       |
| 33) Nitrobenzene               | 6.207  | 77   | 258288     | 81.5761  | ng    | 83       |
| 34) Isophorone                 | 6.394  | 82   | 480242     | 87.6215  | ng    | 91       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 132605     | 83.5626  | ng    | 86       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 218611     | 69.6390  | ng    | 95       |
| 37) Benzoic Acid               | 6.560  | 105  | 25044m     | 15.9754  | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.554  | 93   | 290775     | 81.5234  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 201120     | 80.6862  | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 212112     | 79.4017  | ng    | 98       |
| 41) Naphthalene                | 6.763  | 128  | 713105     | 77.6791  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 349410     | 117.0319 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 111740     | 78.1038  | ng    | 96       |
| 44) Caprolactam                | 7.083  | 113  | 47895      | 51.1066  | ng    | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 208585     | 82.6556  | ng    | 75       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 589337     | 99.8825  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 591610     | 101.9348 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.372  | 142  | 1174630m   | 201.9709 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.666  | 154  | 614121     | 88.7145  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 271455     | 97.1347  | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 81624      | 76.1999  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 143338     | 85.0894  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 150646     | 84.5973  | ng    | 95       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 466374     | 85.9859  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 378164     | 83.1301  | ng    | 93       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 378164     | 83.1301  | ng    | 93       |
| 59) Diphenyl Ether             | 7.746  | 170  | 410301     | 101.9591 | ng    | 83       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 213483     | 95.7188  | ng    | 54       |
| 61) Coumarin                   | 7.954  | 146  | 208069     | 99.6953  | ng    | 75       |
| 62) Acenaphthylene             | 8.040  | 152  | 770020     | 94.4285  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 547114     | 90.0501  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 120379     | 85.2405  | ng    | 69       |
| 65) Acenaphthene               | 8.189  | 153  | 484028     | 86.2264  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : WMB71497(MS)  
 Data File: 5M105925.D  
 Acq On : 10/23/18 09:35

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/23/18 10:12  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 169972   | 113.4200 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 54418    | 83.3186  | ng    | 16       |
| 68) Dibenzofuran               | 8.349  | 168  | 835240   | 102.7905 | ng    | 83       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 169247   | 88.1408  | ng    | 68       |
| 70) 4-Nitrophenol              | 8.259  | 65   | 31650    | 29.9052  | ng    | 86       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 119817   | 78.0003  | ng    | 86       |
| 72) Fluorene                   | 8.665  | 166  | 561666   | 90.6357  | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 252007   | 89.6735  | ng    | 84       |
| 74) Diethylphthalate           | 8.536  | 149  | 517849   | 86.1218  | ng    | 98       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 187437   | 102.9223 | ng    | 79       |
| 76) Atrazine                   | 9.300  | 200  | 184022   | 100.3940 | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 90062    | 98.1741  | ng    | 58       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 380404   | 72.8910  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 649977   | 87.3321  | ng    | 88       |
| 82) 4-Bromophenyl-phenylether  | 9.140  | 248  | 146558   | 93.2631  | ng    | 82       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 136242   | 90.2638  | ng    | 70       |
| 84) N-Octadecane               | 9.461  | 57   | 355839   | 79.5228  | ng    | 83       |
| 85) Pentachlorophenol          | 9.407  | 266  | 67678    | 88.6987  | ng    | 98       |
| 86) Phenanthrene               | 9.642  | 178  | 805847   | 88.9204  | ng    | 99       |
| 87) Anthracene                 | 9.696  | 178  | 827316   | 90.9866  | ng    | 99       |
| 88) Carbazole                  | 9.867  | 167  | 849525   | 100.7168 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 926065   | 86.2762  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 878349   | 90.3642  | ng    | 95       |
| 92) Pyrene                     | 11.234 | 202  | 901749   | 93.5296  | ng    | 88       |
| 93) Benzidine                  | 11.127 | 184  | 72387    | 21.1067  | ng    | 88       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 361453   | 81.9251  | ng    | 73       |
| 99) 3,3'-Dichlorobenzidine     | 12.629 | 252  | 233749   | 87.7538  | ng    | 94       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 826410   | 90.3826  | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 740527   | 84.5684  | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 516594   | 78.3430  | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 762019   | 78.1737  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 750167   | 100.5186 | ng    | 96       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 722087m  | 96.1590  | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 675188   | 88.7339  | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 766156   | 91.9515  | ng    | 93       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 663731   | 92.2738  | ng    | 94       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 642158   | 91.0223  | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

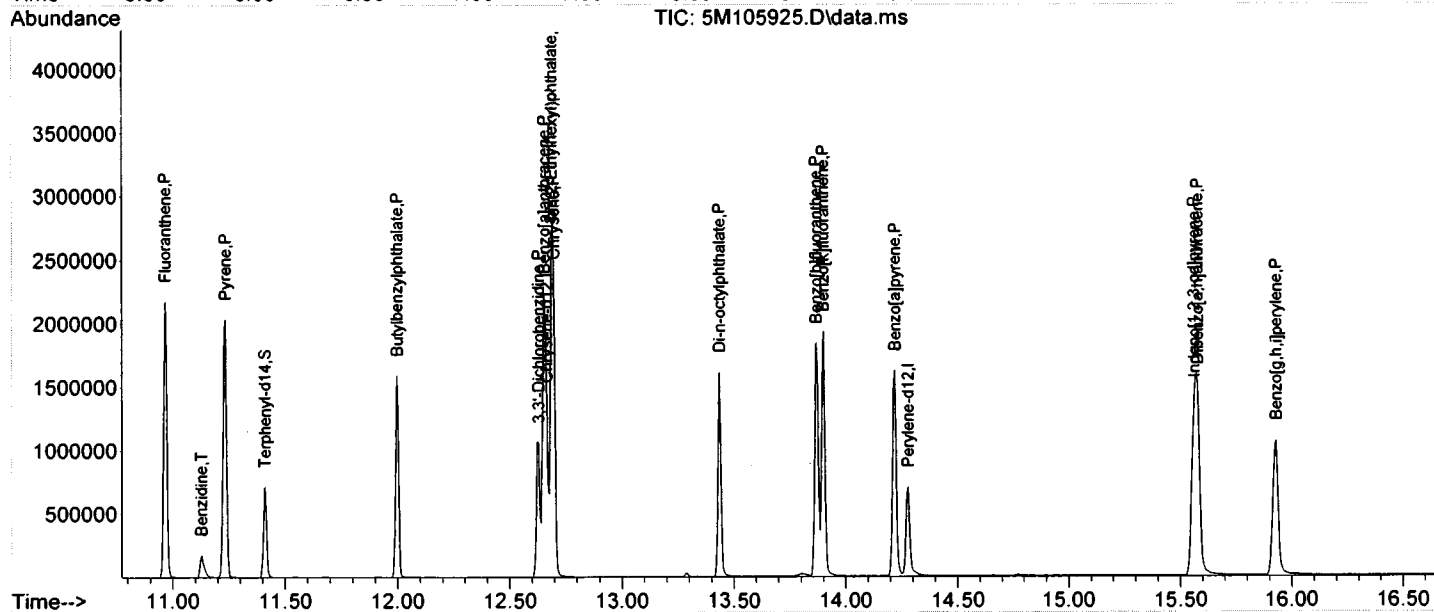
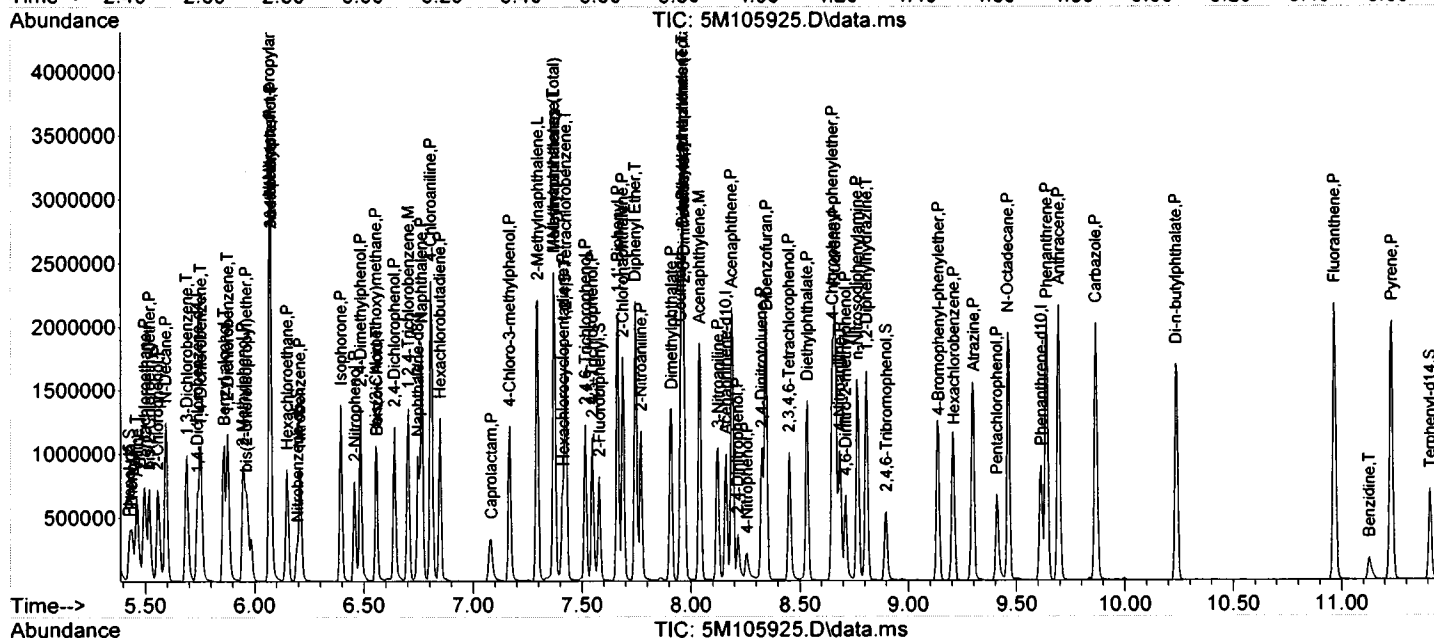
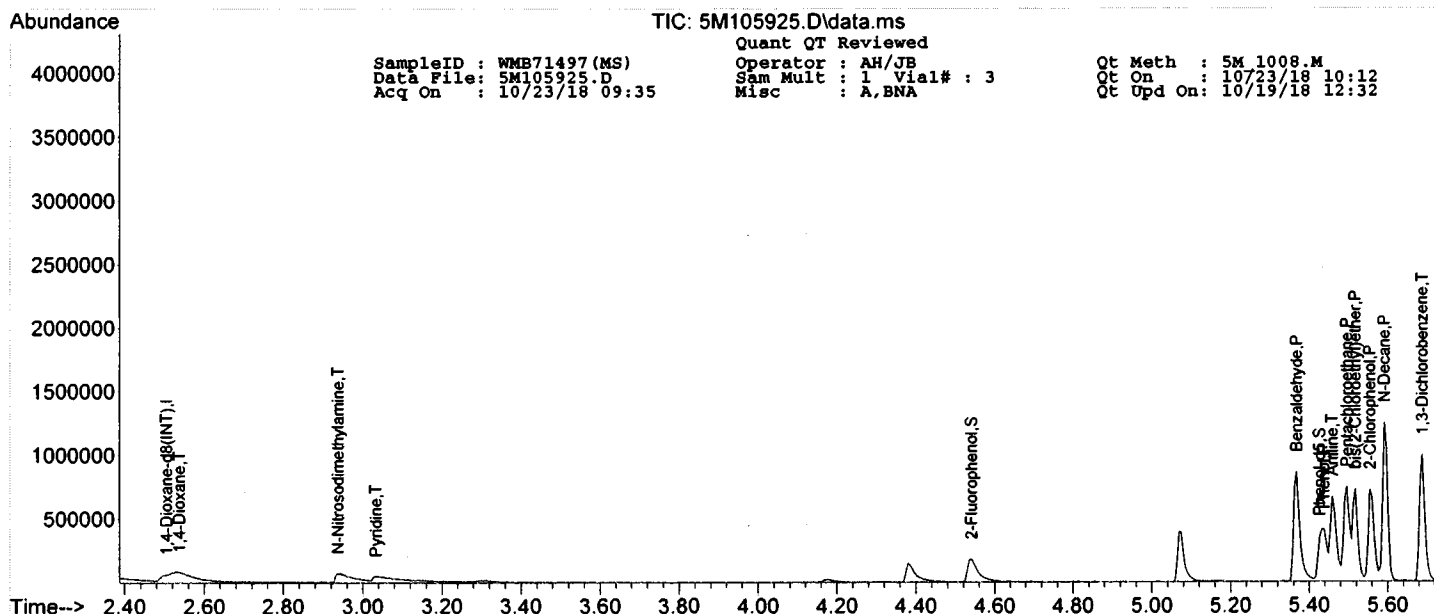


TIC: 5M105925.D\data.ms

SampleID : WMB71497 (MS)  
Data File: 5M105925.D  
Acq On : 10/23/18 09:35

Quant QT Reviewed  
Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

```
Qt Meth   : 5M 1008.M
Qt On      : 10/23/18 10:12
Qt Upd On : 10/19/18 12:32
```



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71518

8101509 0591

| Data File                   |     | Sample ID:      |             |               | Analysis Date         |             |             |
|-----------------------------|-----|-----------------|-------------|---------------|-----------------------|-------------|-------------|
| Spike or Dup: 5M105968.D    |     | WMB71518(MS)    |             |               | 10/25/2018 10:04:00 A |             |             |
| Non Spike(If applicable):   |     |                 |             |               |                       |             |             |
| Inst Blank(If applicable):  |     |                 |             |               |                       |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             |               | QC Type: MBS          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc | Recovery              | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 63.3712         | 0           | 100           | 63                    | 20          | 160         |
| Pyridine                    | 1   | 26.351          | 0           | 100           | 26                    | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 61.7632         | 0           | 100           | 62                    | 20          | 150         |
| Benzaldehyde                | 1   | 133.1941        | 0           | 100           | 133                   | 20          | 234         |
| Aniline                     | 1   | 54.8464         | 0           | 100           | 55                    | 20          | 150         |
| Pentachloroethane           | 1   | 87.0938         | 0           | 100           | 87                    | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 79.2769         | 0           | 100           | 79                    | 43          | 126         |
| Phenol                      | 1   | 37.7516         | 0           | 100           | 38                    | 17          | 120         |
| 2-Chlorophenol              | 1   | 80.7457         | 0           | 100           | 81                    | 36          | 120         |
| N-Decane                    | 1   | 73.843          | 0           | 100           | 74                    | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 79.3421         | 0           | 100           | 79                    | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 87.8714         | 0           | 100           | 88                    | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 87.3298         | 0           | 100           | 87                    | 25          | 130         |
| Benzyl alcohol              | 1   | 83.3455         | 0           | 100           | 83                    | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 77.2426         | 0           | 100           | 77                    | 63          | 139         |
| 2-Methylphenol              | 1   | 82.5655         | 0           | 100           | 83                    | 35          | 130         |
| Acetophenone                | 1   | 100.5671        | 0           | 100           | 101                   | 50          | 130         |
| Hexachloroethane            | 1   | 84.5375         | 0           | 100           | 85                    | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.5867         | 0           | 100           | 85                    | 14          | 198         |
| 3&4-Methylphenol            | 1   | 70.7191         | 0           | 100           | 71                    | 30          | 130         |
| Nitrobenzene                | 1   | 92.0601         | 0           | 100           | 92                    | 54          | 158         |
| Isophorone                  | 1   | 94.3482         | 0           | 100           | 94                    | 47          | 180         |
| 2-Nitrophenol               | 1   | 95.186          | 0           | 100           | 95                    | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 78.4316         | 0           | 100           | 78                    | 42          | 120         |
| Benzoic Acid                | 1   | 14.5515         | 0           | 100           | 15                    | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 89.0505         | 0           | 100           | 89                    | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 90.8829         | 0           | 100           | 91                    | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 90.78           | 0           | 100           | 91                    | 57          | 130         |
| Naphthalene                 | 1   | 86.5            | 0           | 100           | 86                    | 36          | 120         |
| 4-Chloroaniline             | 1   | 107.6197        | 0           | 100           | 108                   | 30          | 170         |
| Hexachlorobutadiene         | 1   | 91.4818         | 0           | 100           | 91                    | 38          | 120         |
| Caprolactam                 | 1   | 41.967          | 0           | 100           | 42                    | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 90.3375         | 0           | 100           | 90                    | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 92.0404         | 0           | 100           | 92                    | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 102.8469        | 0           | 100           | 103                   | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 87.0596         | 0           | 100           | 87                    | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 100.5878        | 0           | 100           | 101                   | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 94.9378         | 0           | 100           | 95                    | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 94.7731         | 0           | 100           | 95                    | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 92.9766         | 0           | 100           | 93                    | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 93.1269         | 0           | 100           | 93                    | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 84.1938         | 0           | 100           | 84                    | 50          | 130         |
| Diphenyl Ether              | 1   | 103.2512        | 0           | 100           | 103                   | 50          | 140         |
| 2-Nitroaniline              | 1   | 89.568          | 0           | 100           | 90                    | 40          | 150         |
| Coumarin                    | 1   | 96.3666         | 0           | 100           | 96                    | 1           | 180         |
| Acenaphthylene              | 1   | 100.2359        | 0           | 100           | 100                   | 54          | 126         |
| Dimethylphthalate           | 1   | 94.044          | 0           | 100           | 94                    | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 89.6968         | 0           | 100           | 90                    | 68          | 137         |
| Acenaphthene                | 1   | 92.023          | 0           | 100           | 92                    | 60          | 132         |
| 3-Nitroaniline              | 1   | 101.6772        | 0           | 100           | 102                   | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 87.3667         | 0           | 100           | 87                    | 1           | 173         |
| Dibenzofuran                | 1   | 89.42           | 0           | 100           | 89                    | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 92.0757         | 0           | 100           | 92                    | 48          | 127         |
| 4-Nitrophenol               | 1   | 31.517          | 0           | 100           | 32                    | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 86.2798         | 0           | 100           | 86                    | 50          | 130         |
| Fluorene                    | 1   | 91.9172         | 0           | 100           | 92                    | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 93.0513         | 0           | 100           | 93                    | 38          | 145         |
| Diethylphthalate            | 1   | 92.3725         | 0           | 100           | 92                    | 1           | 120         |
| 4-Nitroaniline              | 1   | 92.4458         | 0           | 100           | 92                    | 40          | 150         |
| Atrazine                    | 1   | 90.4564         | 0           | 100           | 90                    | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 105.9085        | 0           | 100           | 106                   | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71518

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 80.1879  | 0 | 100 | 80  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 93.4133  | 0 | 100 | 93  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 97.8922  | 0 | 100 | 98  | 65 | 120 |
| Hexachlorobenzene          | 1 | 98.3314  | 0 | 100 | 98  | 8  | 142 |
| N-Octadecane               | 1 | 79.8691  | 0 | 100 | 80  | 50 | 130 |
| Pentachlorophenol          | 1 | 91.3806  | 0 | 100 | 91  | 38 | 152 |
| Phenanthrene               | 1 | 94.4508  | 0 | 100 | 94  | 65 | 120 |
| Anthracene                 | 1 | 95.8335  | 0 | 100 | 96  | 43 | 120 |
| Carbazole                  | 1 | 98.2781  | 0 | 100 | 98  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 86.7878  | 0 | 100 | 87  | 8  | 120 |
| Fluoranthene               | 1 | 93.6341  | 0 | 100 | 94  | 43 | 121 |
| Pyrene                     | 1 | 98.3413  | 0 | 100 | 98  | 70 | 120 |
| Benzidine                  | 1 | 25.6015  | 0 | 100 | 26  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 75.2506  | 0 | 100 | 75  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 97.0344  | 0 | 100 | 97  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 94.7499  | 0 | 100 | 95  | 42 | 133 |
| Chrysene                   | 1 | 96.6785  | 0 | 100 | 97  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 71.3845  | 0 | 100 | 71  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 72.6209  | 0 | 100 | 73  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 99.4596  | 0 | 100 | 99  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 101.2751 | 0 | 100 | 101 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 92.0881  | 0 | 100 | 92  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.412   | 0 | 100 | 91  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 91.006   | 0 | 100 | 91  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 90.503   | 0 | 100 | 91  | 1  | 195 |

SampleID : WMB71518(MS)  
Data File: 5M105968.D  
Acq On : 10/25/18 10:04

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/25/18 10:53  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-25-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QION | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.505  | 96   | 56793      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 95693      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 350645     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 203886     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 333126     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 339276     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 269813     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.535  | 112  | 172546     | 58.52    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 58.52%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 165521     | 36.40    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 36.40%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 52566      | 50.80    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 101.60%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 322622     | 49.47    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 98.94%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 65464      | 100.05   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 100.05%  |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 291070     | 53.64    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 107.28%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.542  | 88   | 91881      | 63.3712  | ng    | 84       |
| 9) Pyridine                    | 3.034  | 79   | 94671      | 26.3510  | ng    | 70       |
| 10) N-Nitrosodimethylamine     | 2.938  | 74   | 126339     | 61.7632  | ng    | 81       |
| 12) Benzaldehyde               | 5.368  | 77   | 228963     | 133.1941 | ng    | 78       |
| 13) Aniline                    | 5.459  | 93   | 264795     | 54.8464  | ng    | 53       |
| 14) Pentachloroethane          | 5.496  | 117  | 98729      | 87.0938  | ng    | 79       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 282324     | 79.2769  | ng    | 82       |
| 17) Phenol                     | 5.438  | 94   | 176504     | 37.7516  | ng    | 86       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 273981     | 80.7457  | ng    | 82       |
| 19) N-Decane                   | 5.593  | 57   | 287667     | 73.8430  | ng    | 89       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 302223     | 79.3421  | ng    | 98       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 314174     | 87.8714  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.876  | 146  | 290293     | 87.3298  | ng    | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 163239     | 83.3455  | ng    | 73       |
| 25) bis(2-chloroisopropyl)...  | 5.961  | 45   | 348551     | 77.2426  | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 237252     | 82.5655  | ng    | 97       |
| 27) Acetophenone               | 6.073  | 105  | 421209     | 100.5671 | ng    | 77       |
| 28) Hexachloroethane           | 6.148  | 117  | 112305     | 84.5375  | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 187679     | 84.5867  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 217812     | 70.7191  | ng    | 82       |
| 33) Nitrobenzene               | 6.212  | 77   | 297720     | 92.0601  | ng    | 79       |
| 34) Isophorone                 | 6.394  | 82   | 528175     | 94.3482  | ng    | 89       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 156580     | 95.1860  | ng    | 87       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 252528     | 78.4316  | ng    | 93       |
| 37) Benzoic Acid               | 6.560  | 105  | 23069m     | 14.5515  | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 324419     | 89.0505  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 233084     | 90.8829  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 247697     | 90.7800  | ng    | 98       |
| 41) Naphthalene                | 6.763  | 128  | 811074     | 86.5000  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 332626     | 107.6197 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 133680     | 91.4818  | ng    | 95       |
| 44) Caprolactam                | 7.083  | 113  | 39716      | 41.9670  | ng    | 67       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 234581     | 90.3375  | ng    | 78       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 554687     | 92.0404  | ng    | 97       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 609676     | 102.8469 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.372  | 142  | 1163544m   | 195.8733 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 615561     | 87.0596  | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 284225     | 100.5878 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 108427     | 94.9378  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 162587     | 94.7731  | ng    | 98       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 169082     | 92.9766  | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 510712     | 93.1269  | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 387254     | 84.1938  | ng    | 91       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 387254     | 84.1938  | ng    | 91       |
| 59) Diphenyl Ether             | 7.746  | 170  | 420112     | 103.2512 | ng    | 83       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 201426     | 89.5680  | ng    | 53       |
| 61) Coumarin                   | 7.954  | 146  | 203354     | 96.3666  | ng    | 71       |
| 62) Acenaphthylene             | 8.039  | 152  | 826448     | 100.2359 | ng    | 100      |
| 63) Dimethylphthalate          | 7.911  | 163  | 577721     | 94.0440  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 128210     | 89.6968  | ng    | 71       |
| 65) Acenaphthene               | 8.189  | 153  | 522300     | 92.0230  | ng    | 98       |

## Quantitation Report (QT Reviewed)

SampleID : WMB71518(MS)  
 Data File: SM105968.D  
 Acq On : 10/25/18 10:04

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : SM\_1008.M  
 Qt On : 10/25/18 10:53  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-25-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 155068   | 101.6772 | ng    | 72       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 58504    | 87.3667  | ng    | 16       |
| 68) Dibenzofuran               | 8.344  | 168  | 734481   | 89.4200  | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 179288   | 92.0757  | ng    | 67       |
| 70) 4-Nitrophenol              | 8.258  | 65   | 33851    | 31.5170  | ng    | 90       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 134689   | 86.2798  | ng    | 85       |
| 72) Fluorene                   | 8.664  | 166  | 575929   | 91.9172  | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 264402   | 93.0513  | ng    | 85       |
| 74) Diethylphthalate           | 8.536  | 149  | 561599   | 92.3725  | ng    | 98       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 168706   | 92.4458  | ng    | 81       |
| 76) Atrazine                   | 9.300  | 200  | 165545   | 90.4564  | ng    | 93       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 99020    | 105.9085 | ng    | 60       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 417219   | 80.1879  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 693133   | 93.4133  | ng    | 88       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 153367   | 97.8922  | ng    | 87       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 147970   | 98.3314  | ng    | 70       |
| 84) N-Octadecane               | 9.460  | 57   | 356322   | 79.8691  | ng    | 86       |
| 85) Pentachlorophenol          | 9.407  | 266  | 70108    | 91.3806  | ng    | 98       |
| 86) Phenanthrene               | 9.642  | 178  | 853377   | 94.4508  | ng    | 100      |
| 87) Anthracene                 | 9.695  | 178  | 868751   | 95.8335  | ng    | 99       |
| 88) Carbazole                  | 9.866  | 167  | 826447   | 98.2781  | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.240 | 149  | 929017   | 86.7878  | ng    | 97       |
| 90) Fluoranthene               | 10.967 | 202  | 909874   | 93.6341  | ng    | 95       |
| 92) Pyrene                     | 11.234 | 202  | 951323   | 98.3413  | ng    | 88       |
| 93) Benzidine                  | 11.127 | 184  | 88221    | 25.6015  | ng    | 89       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 329753   | 75.2506  | ng    | 76       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 258344   | 97.0344  | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 869251   | 94.7499  | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 849412   | 96.6785  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 471230   | 71.3845  | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 712177   | 72.6209  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.873 | 252  | 755431   | 99.4596  | ng    | 94       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 773996m  | 101.2751 | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 717017   | 92.0881  | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 774478   | 91.4120  | ng    | 96       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 665067   | 91.0060  | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 649277   | 90.5030  | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71532**

8101509 0596

| Data File                   |     | Sample ID:      |             | Analysis Date         |          |             |             |
|-----------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105990.D    |     | WMB71532(MS)    |             | 10/26/2018 9:22:00 AM |          |             |             |
| Non Spike(If applicable):   |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):  |     |                 |             |                       |          |             |             |
| Method: 625.1               |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                    | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                 | 1   | 63.6211         | 0           | 100                   | 64       | 20          | 160         |
| Pyridine                    | 1   | 20.5269         | 0           | 100                   | 21       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 61.8601         | 0           | 100                   | 62       | 20          | 150         |
| Benzaldehyde                | 1   | 136.0759        | 0           | 100                   | 136      | 20          | 234         |
| Aniline                     | 1   | 51.7296         | 0           | 100                   | 52       | 20          | 150         |
| Pentachloroethane           | 1   | 84.6698         | 0           | 100                   | 85       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 80.5579         | 0           | 100                   | 81       | 43          | 126         |
| Phenol                      | 1   | 36.4041         | 0           | 100                   | 36       | 17          | 120         |
| 2-Chlorophenol              | 1   | 78.8295         | 0           | 100                   | 79       | 36          | 120         |
| N-Decane                    | 1   | 72.7133         | 0           | 100                   | 73       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 78.4067         | 0           | 100                   | 78       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 88.0187         | 0           | 100                   | 88       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 89.3419         | 0           | 100                   | 89       | 25          | 130         |
| Benzyl alcohol              | 1   | 84.9118         | 0           | 100                   | 85       | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 78.3665         | 0           | 100                   | 78       | 63          | 139         |
| 2-Methylphenol              | 1   | 81.4584         | 0           | 100                   | 81       | 35          | 130         |
| Acetophenone                | 1   | 101.3579        | 0           | 100                   | 101      | 50          | 130         |
| Hexachloroethane            | 1   | 86.8006         | 0           | 100                   | 87       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 87.0509         | 0           | 100                   | 87       | 14          | 198         |
| 3&4-Methylphenol            | 1   | 69.5412         | 0           | 100                   | 70       | 30          | 130         |
| Nitrobenzene                | 1   | 94.5265         | 0           | 100                   | 95       | 54          | 158         |
| Isophorone                  | 1   | 98.334          | 0           | 100                   | 98       | 47          | 180         |
| 2-Nitrophenol               | 1   | 95.0391         | 0           | 100                   | 95       | 45          | 167         |
| 2,4-Dimethylphenol          | 1   | 79.1413         | 0           | 100                   | 79       | 42          | 120         |
| Benzoic Acid                | 1   | 0               | 0           | 100                   | 0*       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 89.9466         | 0           | 100                   | 90       | 49          | 165         |
| 2,4-Dichlorophenol          | 1   | 91.2236         | 0           | 100                   | 91       | 53          | 122         |
| 1,2,4-Trichlorobenzene      | 1   | 92.0306         | 0           | 100                   | 92       | 57          | 130         |
| Naphthalene                 | 1   | 88.4357         | 0           | 100                   | 88       | 36          | 120         |
| 4-Chloroaniline             | 1   | 113.2639        | 0           | 100                   | 113      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 91.7795         | 0           | 100                   | 92       | 38          | 120         |
| Caprolactam                 | 1   | 45.0804         | 0           | 100                   | 45       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 93.2584         | 0           | 100                   | 93       | 41          | 128         |
| 2-Methylnaphthalene         | 1   | 92.9019         | 0           | 100                   | 93       | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 107.5698        | 0           | 100                   | 108      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 90.9607         | 0           | 100                   | 91       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 104.6292        | 0           | 100                   | 105      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 94.9895         | 0           | 100                   | 95       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 95.5905         | 0           | 100                   | 96       | 52          | 129         |
| 2,4,5-Trichlorophenol       | 1   | 95.373          | 0           | 100                   | 95       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 95.7092         | 0           | 100                   | 96       | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 86.1181         | 0           | 100                   | 86       | 50          | 130         |
| Diphenyl Ether              | 1   | 106.3425        | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline              | 1   | 94.333          | 0           | 100                   | 94       | 40          | 150         |
| Coumarin                    | 1   | 101.4235        | 0           | 100                   | 101      | 1           | 180         |
| Acenaphthylene              | 1   | 107.4991        | 0           | 100                   | 107      | 54          | 126         |
| Dimethylphthalate           | 1   | 101.649         | 0           | 100                   | 102      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 94.2676         | 0           | 100                   | 94       | 68          | 137         |
| Acenaphthene                | 1   | 98.127          | 0           | 100                   | 98       | 60          | 132         |
| 3-Nitroaniline              | 1   | 111.8016        | 0           | 100                   | 112      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 72.421          | 0           | 100                   | 72       | 1           | 173         |
| Dibenzofuran                | 1   | 95.0938         | 0           | 100                   | 95       | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 97.43           | 0           | 100                   | 97       | 48          | 127         |
| 4-Nitrophenol               | 1   | 35.7197         | 0           | 100                   | 36       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 88.6974         | 0           | 100                   | 89       | 50          | 130         |
| Fluorene                    | 1   | 100.1094        | 0           | 100                   | 100      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 99.08           | 0           | 100                   | 99       | 38          | 145         |
| Diethylphthalate            | 1   | 99.133          | 0           | 100                   | 99       | 1           | 120         |
| 4-Nitroaniline              | 1   | 97.6676         | 0           | 100                   | 98       | 40          | 150         |
| Atrazine                    | 1   | 92.6557         | 0           | 100                   | 93       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 100.5688        | 0           | 100                   | 101      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71532

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 80.9124  | 0 | 100 | 81  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 96.2705  | 0 | 100 | 96  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 102.7711 | 0 | 100 | 103 | 65 | 120 |
| Hexachlorobenzene          | 1 | 102.1146 | 0 | 100 | 102 | 8  | 142 |
| N-Octadecane               | 1 | 81.2652  | 0 | 100 | 81  | 50 | 130 |
| Pentachlorophenol          | 1 | 90.4718  | 0 | 100 | 90  | 38 | 152 |
| Phenanthrene               | 1 | 98.7322  | 0 | 100 | 99  | 65 | 120 |
| Anthracene                 | 1 | 99.1306  | 0 | 100 | 99  | 43 | 120 |
| Carbazole                  | 1 | 101.2382 | 0 | 100 | 101 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.7186  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 98.4808  | 0 | 100 | 98  | 43 | 121 |
| Pyrene                     | 1 | 103.7808 | 0 | 100 | 104 | 70 | 120 |
| Benzidine                  | 1 | 12.1422  | 0 | 100 | 12  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 84.5102  | 0 | 100 | 85  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 104.2028 | 0 | 100 | 104 | 8  | 213 |
| Benzo[a]anthracene         | 1 | 103.348  | 0 | 100 | 103 | 42 | 133 |
| Chrysene                   | 1 | 103.0892 | 0 | 100 | 103 | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 84.1485  | 0 | 100 | 84  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 83.674   | 0 | 100 | 84  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 108.9401 | 0 | 100 | 109 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 105.7867 | 0 | 100 | 106 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 98.6343  | 0 | 100 | 99  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.4451  | 0 | 100 | 99  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 99.0807  | 0 | 100 | 99  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 99.4292  | 0 | 100 | 99  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



SampleID : WMB71532(MS)  
Data File: 5M105990.D  
Acq On : 10/26/18 09:22

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/26/18 10:34  
Qt Upd On: 10/25/18 12:46

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-26-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.521  | 96   | 52087      | 40.00    | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 87428      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 323718     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 186229     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.616  | 188  | 312919     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 312665     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 251671     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 157001     | 58.06    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 58.06%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 152569     | 36.59    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 36.59%   |       |          |
| 32) Nitrobenzene-d5            | 6.197  | 128  | 51886      | 54.31    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 108.62%  |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 312025     | 52.38    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 104.76%  |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 65586      | 105.94   | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 105.94%  |       |          |
| 94) Terphenyl-d14              | 11.411 | 244  | 302042     | 60.39    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 120.78%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.553  | 88   | 84607m     | 63.6211  | ng    | Qvalue   |
| 9) Pyridine                    | 3.066  | 79   | 67636m     | 20.5269  | ng    |          |
| 10) N-Nitrosodimethylamine     | 2.954  | 74   | 116052     | 61.8601  | ng    | 82       |
| 12) Benzaldehyde               | 5.369  | 77   | 214534     | 136.0759 | ng    | 78       |
| 13) Aniline                    | 5.465  | 93   | 228758     | 51.7296  | ng    | 61       |
| 14) Pentachloroethane          | 5.497  | 117  | 88028      | 84.6698  | ng    | 78       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 263114     | 80.5579  | ng    | 83       |
| 17) Phenol                     | 5.438  | 94   | 155936m    | 36.4041  | ng    |          |
| 18) 2-Chlorophenol             | 5.561  | 128  | 245315     | 78.8295  | ng    | 81       |
| 19) N-Decane                   | 5.593  | 57   | 259794     | 72.7133  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 273912m    | 78.4067  | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 287520     | 88.0187  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.876  | 146  | 271331     | 89.3419  | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 151943     | 84.9118  | ng    | 75       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 323080     | 78.3665  | ng    | 98       |
| 26) 2-Methylphenol             | 5.945  | 108  | 213854     | 81.4584  | ng    | 99       |
| 27) Acetophenone               | 6.074  | 105  | 387855     | 101.3579 | ng    | 76       |
| 28) Hexachloroethane           | 6.148  | 117  | 105352     | 86.8006  | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.074  | 70   | 176081     | 87.0509  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.074  | 108  | 195943     | 69.5412  | ng    | 85       |
| 33) Nitrobenzene               | 6.207  | 77   | 282221     | 94.5265  | ng    | 83       |
| 34) Isophorone                 | 6.394  | 82   | 508215     | 98.3340  | ng    | 89       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 144306     | 95.0391  | ng    | 86       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 235324     | 79.1413  | ng    | 94       |
| 37) Benzoic Acid               | 6.619  | 105  | 6223m      | 4.5726   | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.554  | 93   | 302520     | 89.9466  | ng    | 98       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 216044     | 91.2236  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 231826     | 92.0306  | ng    | 98       |
| 41) Naphthalene                | 6.763  | 128  | 765546     | 88.4357  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.806  | 127  | 320600     | 113.2639 | ng    | 93       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 123816     | 91.7795  | ng    | 97       |
| 44) Caprolactam                | 7.083  | 113  | 39540      | 45.0804  | ng    | 69       |
| 45) 4-Chloro-3-methylphenol    | 7.163  | 107  | 224197     | 93.2584  | ng    | 83       |
| 46) 2-Methylnaphthalene        | 7.292  | 142  | 516884     | 92.9019  | ng    | 96       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 588705     | 107.5698 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.372  | 142  | 1101680m   | 200.8856 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.666  | 154  | 593755     | 90.9607  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 270041     | 104.6292 | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.409  | 237  | 99105      | 94.9895  | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 149878     | 95.5905  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 158869     | 95.3730  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 479418     | 95.7092  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 361801     | 86.1181  | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 361801     | 86.1181  | ng    | 89       |
| 59) Diphenyl Ether             | 7.746  | 170  | 395218     | 106.3425 | ng    | 80       |
| 60) 2-Nitroaniline             | 7.767  | 65   | 194184     | 94.3330  | ng    | 68       |
| 61) Coumarin                   | 7.954  | 146  | 195490     | 101.4235 | ng    | 72       |
| 62) Acenaphthylene             | 8.040  | 152  | 809575     | 107.4991 | ng    | 100      |
| 63) Dimethylphthalate          | 7.906  | 163  | 570361     | 101.6490 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 123204     | 94.2676  | ng    | 65       |
| 65) Acenaphthene               | 8.189  | 153  | 508712     | 98.1270  | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : WMB71532 (MS)  
 Data File: SM105990.D  
 Acq On : 10/26/18 09:22

Operator : AH/JB  
 Sam Mult : 1 Vial# : 3  
 Misc : A,BNA

Qt Meth : SM\_1008.M  
 Qt On : 10/26/18 10:34  
 Qt Upd On: 10/25/18 12:46

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-26-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.120  | 138  | 154874   | 111.8016 | ng    | 78       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 42035    | 72.4210  | ng    | 5        |
| 68) Dibenzofuran               | 8.344  | 168  | 713515   | 95.0938  | ng    | 87       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 173972   | 97.4300  | ng    | 67       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 35380    | 35.7197  | ng    | 89       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 126659   | 88.6974  | ng    | 86       |
| 72) Fluorene                   | 8.665  | 166  | 572937   | 100.1094 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 257151   | 99.0800  | ng    | 84       |
| 74) Diethylphthalate           | 8.536  | 149  | 550506   | 99.1330  | ng    | 97       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 163531   | 97.6676  | ng    | 80       |
| 76) Atrazine                   | 9.295  | 200  | 155320   | 92.6557  | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 86996    | 100.5688 | ng    | 60       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 395452   | 80.9124  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 671003   | 96.2705  | ng    | 88       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 151244   | 102.7711 | ng    | 87       |
| 83) Hexachlorobenzene          | 9.210  | 284  | 144342   | 102.1146 | ng    | 70       |
| 84) N-Octadecane               | 9.461  | 57   | 340616   | 81.2652  | ng    | 87       |
| 85) Pentachlorophenol          | 9.407  | 266  | 65013    | 90.4718  | ng    | 95       |
| 86) Phenanthrene               | 9.642  | 178  | 837949   | 98.7322  | ng    | 98       |
| 87) Anthracene                 | 9.696  | 178  | 844130   | 99.1306  | ng    | 98       |
| 88) Carbazole                  | 9.867  | 167  | 799698   | 101.2382 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 956845   | 94.7186  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 902574   | 98.4808  | ng    | 95       |
| 92) Pyrene                     | 11.229 | 202  | 925199   | 103.7808 | ng    | 93       |
| 93) Benzidine                  | 11.127 | 184  | 38397    | 12.1422  | ng    | 88       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 346116   | 84.5102  | ng    | 75       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252  | 254910   | 104.2028 | ng    | 98       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 873765   | 103.3480 | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 834695   | 103.0892 | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 514031   | 84.1485  | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 783095   | 83.6740  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 771803   | 108.9401 | ng    | 96       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 754115m  | 105.7867 | ng    |          |
| 107) Benzo[a]pyrene            | 14.221 | 252  | 723906   | 98.6343  | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.562 | 276  | 796375   | 99.4451  | ng    | 96       |
| 109) Dibenzo[a,h]anthracene    | 15.578 | 278  | 682879   | 99.0807  | ng    | 91       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 674923   | 99.4292  | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71471

8101509 0601

| Data File                            |     | Sample ID:         |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|--------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71442.D             |     | AD07093-001(T)(MS) |             | 10/19/2018 11:42:00 A |          |             |             |
| Non Spike(If applicable): 10M71441.D |     | AD07093-001(T)     |             | 10/19/2018 11:20:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                    |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous    |             | QC Type: MS           |          |             |             |
| Analyte:                             | Col | Spike Conc         | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 55.2785            | 0           | 100                   | 55       | 20          | 160         |
| Pyridine                             | 1   | 32.6502            | 0           | 100                   | 33       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 62.0201            | 0           | 100                   | 62       | 20          | 150         |
| Benzaldehyde                         | 1   | 129.9332           | 0           | 100                   | 130      | 20          | 234         |
| Aniline                              | 1   | 50.9197            | 0           | 100                   | 51       | 20          | 150         |
| Pentachloroethane                    | 1   | 69.6055            | 0           | 100                   | 70       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 74.7132            | 0           | 100                   | 75       | 12          | 158         |
| Phenol                               | 1   | 14.9508            | 0           | 100                   | 15       | 5           | 120         |
| 2-Chlorophenol                       | 1   | 12.2624            | 0           | 100                   | 12*      | 23          | 134         |
| N-Decane                             | 1   | 64.4722            | 0           | 100                   | 64       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 64.3333            | 0           | 100                   | 64       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 70.3069            | 0           | 100                   | 70       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 69.5202            | 0           | 100                   | 70       | 25          | 130         |
| Benzyl alcohol                       | 1   | 82.3174            | 0           | 100                   | 82       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 66.7257            | 0           | 100                   | 67       | 36          | 166         |
| 2-Methylphenol                       | 1   | 34.987             | 0           | 100                   | 35       | 35          | 130         |
| Acetophenone                         | 1   | 96.3639            | 0           | 100                   | 96       | 50          | 130         |
| Hexachloroethane                     | 1   | 72.6457            | 0           | 100                   | 73       | 40          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 83.1737            | 0           | 100                   | 83       | 1           | 230         |
| 3&4-Methylphenol                     | 1   | 32.4659            | 0           | 100                   | 32       | 30          | 130         |
| Nitrobenzene                         | 1   | 86.3474            | 0           | 100                   | 86       | 35          | 180         |
| Isophorone                           | 1   | 87.0064            | 0           | 100                   | 87       | 21          | 196         |
| 2-Nitrophenol                        | 1   | 12.7144            | 0           | 100                   | 13*      | 29          | 182         |
| 2,4-Dimethylphenol                   | 1   | 61.2862            | 0           | 100                   | 61       | 32          | 120         |
| Benzoic Acid                         | 1   | 0                  | 0           | 100                   | 0*       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 85.3877            | 0           | 100                   | 85       | 33          | 184         |
| 2,4-Dichlorophenol                   | 1   | 15.9488            | 0           | 100                   | 16*      | 39          | 135         |
| 1,2,4-Trichlorobenzene               | 1   | 81.0444            | 0           | 100                   | 81       | 44          | 142         |
| Naphthalene                          | 1   | 83.7282            | 0           | 100                   | 84       | 21          | 133         |
| 4-Chloroaniline                      | 1   | 65.1713            | 0           | 100                   | 65       | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 80.553             | 0           | 100                   | 81       | 24          | 120         |
| Caprolactam                          | 1   | 86.7465            | 0           | 100                   | 87       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 31.7955            | 0           | 100                   | 32       | 22          | 147         |
| 2-Methylnaphthalene                  | 1   | 85.0747            | 0           | 100                   | 85       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 101.3638           | 0           | 100                   | 101      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 80.5449            | 0           | 100                   | 81       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 96.8               | 0           | 100                   | 97       | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 78.1443            | 0           | 100                   | 78       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 17.9304            | 0           | 100                   | 18*      | 37          | 144         |
| 2,4,5-Trichlorophenol                | 1   | 18.0698            | 0           | 100                   | 18*      | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 87.9111            | 0           | 100                   | 88       | 60          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 89.044             | 0           | 100                   | 89       | 50          | 130         |
| Diphenyl Ether                       | 1   | 106.0297           | 0           | 100                   | 106      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 86.5766            | 0           | 100                   | 87       | 40          | 150         |
| Coumarin                             | 1   | 100.9706           | 0           | 100                   | 101      | 1           | 180         |
| Acenaphthylene                       | 1   | 100.5225           | 0           | 100                   | 101      | 33          | 145         |
| Dimethylphthalate                    | 1   | 94.2715            | 0           | 100                   | 94       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 97.9195            | 0           | 100                   | 98       | 50          | 158         |
| Acenaphthene                         | 1   | 90.4985            | 0           | 100                   | 90       | 47          | 145         |
| 3-Nitroaniline                       | 1   | 65.9536            | 0           | 100                   | 66       | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 0                  | 0           | 100                   | 0*       | 1           | 191         |
| Dibenzofuran                         | 1   | 94.397             | 0           | 100                   | 94       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 90.3419            | 0           | 100                   | 90       | 39          | 139         |
| 4-Nitrophenol                        | 1   | 7.4489             | 0           | 100                   | 7.4      | 1           | 132         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 18.9132            | 0           | 100                   | 19*      | 50          | 130         |
| Fluorene                             | 1   | 95.0732            | 0           | 100                   | 95       | 59          | 121         |
| 4-Chlorophenyl-phenylether           | 1   | 95.0356            | 0           | 100                   | 95       | 1           | 132         |
| Diethylphthalate                     | 1   | 94.4871            | 0           | 100                   | 94       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 47.2109            | 0           | 100                   | 47       | 40          | 150         |
| Atrazine                             | 1   | 91.6642            | 0           | 100                   | 92       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 16.3941            | 0           | 100                   | 16       | 1           | 181         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

**8101509 0602**

QC Batch: WMB71471

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.1501 | 0 | 100 | 77  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 99.3004 | 0 | 100 | 99  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 98.0859 | 0 | 100 | 98  | 53 | 127 |
| Hexachlorobenzene          | 1 | 92.5694 | 0 | 100 | 93  | 1  | 152 |
| N-Octadecane               | 1 | 90.6702 | 0 | 100 | 91  | 50 | 130 |
| Pentachlorophenol          | 1 | 17.6426 | 0 | 100 | 18  | 14 | 176 |
| Phenanthrene               | 1 | 96.0675 | 0 | 100 | 96  | 54 | 120 |
| Anthracene                 | 1 | 97.2628 | 0 | 100 | 97  | 27 | 133 |
| Carbazole                  | 1 | 99.6684 | 0 | 100 | 100 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 94.9101 | 0 | 100 | 95  | 1  | 120 |
| Fluoranthene               | 1 | 98.6962 | 0 | 100 | 99  | 26 | 137 |
| Pyrene                     | 1 | 97.5634 | 0 | 100 | 98  | 52 | 120 |
| Benzidine                  | 1 | 17.6601 | 0 | 100 | 18  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 95.6995 | 0 | 100 | 96  | 1  | 152 |
| 3,3'-Dichlorobenzidine     | 1 | 14.2338 | 0 | 100 | 14  | 1  | 262 |
| Benzo[a]anthracene         | 1 | 94.5712 | 0 | 100 | 95  | 33 | 143 |
| Chrysene                   | 1 | 85.3424 | 0 | 100 | 85  | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.8794 | 0 | 100 | 99  | 8  | 158 |
| Di-n-octylphthalate        | 1 | 96.1084 | 0 | 100 | 96  | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 96.9413 | 0 | 100 | 97  | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 97.7971 | 0 | 100 | 98  | 11 | 162 |
| Benzo[a]pyrene             | 1 | 92.9984 | 0 | 100 | 93  | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 94.603  | 0 | 100 | 95  | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 99.0239 | 0 | 100 | 99  | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 92.8413 | 0 | 100 | 93  | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71471**

**8101509 0603**

| Data File                            |     | Sample ID:          |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|---------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71443.D             |     | AD07093-001(T)(MSD) |             | 10/19/2018 12:04:00 P |          |             |             |
| Non Spike(If applicable): 10M71441.D |     | AD07093-001(T)      |             | 10/19/2018 11:20:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                     |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous     |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc          | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 88.3305             | 0           | 100                   | 88       | 20          | 160         |
| Pyridine                             | 1   | 45.0047             | 0           | 100                   | 45       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 84.1121             | 0           | 100                   | 84       | 20          | 150         |
| Benzaldehyde                         | 1   | 5.2704              | 0           | 100                   | 5.3 *    | 20          | 234         |
| Aniline                              | 1   | 53.4628             | 0           | 100                   | 53       | 20          | 150         |
| Pentachloroethane                    | 1   | 98.3648             | 0           | 100                   | 98       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 90.1403             | 0           | 100                   | 90       | 43          | 126         |
| Phenol                               | 1   | 7.1413              | 0           | 100                   | 7.1 *    | 17          | 120         |
| 2-Chlorophenol                       | 1   | 88.9105             | 0           | 100                   | 89       | 36          | 120         |
| N-Decane                             | 1   | 91.7086             | 0           | 100                   | 92       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 84.6408             | 0           | 100                   | 85       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 84.5044             | 0           | 100                   | 85       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 81.216              | 0           | 100                   | 81       | 25          | 130         |
| Benzyl alcohol                       | 1   | 93.475              | 0           | 100                   | 93       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 76.3363             | 0           | 100                   | 76       | 63          | 139         |
| 2-Methylphenol                       | 1   | 87.5182             | 0           | 100                   | 88       | 35          | 130         |
| Acetophenone                         | 1   | 109.4396            | 0           | 100                   | 109      | 50          | 130         |
| Hexachloroethane                     | 1   | 88.7666             | 0           | 100                   | 89       | 55          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 90.1977             | 0           | 100                   | 90       | 14          | 198         |
| 3&4-Methylphenol                     | 1   | 96.6319             | 0           | 100                   | 97       | 30          | 130         |
| Nitrobenzene                         | 1   | 94.429              | 0           | 100                   | 94       | 54          | 158         |
| Isophorone                           | 1   | 91.0974             | 0           | 100                   | 91       | 47          | 180         |
| 2-Nitrophenol                        | 1   | 92.7584             | 0           | 100                   | 93       | 45          | 167         |
| 2,4-Dimethylphenol                   | 1   | 81.6805             | 0           | 100                   | 82       | 42          | 120         |
| Benzoic Acid                         | 1   | 66.3912             | 0           | 100                   | 66       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 89.0525             | 0           | 100                   | 89       | 49          | 165         |
| 2,4-Dichlorophenol                   | 1   | 95.1159             | 0           | 100                   | 95       | 53          | 122         |
| 1,2,4-Trichlorobenzene               | 1   | 93.4757             | 0           | 100                   | 93       | 57          | 130         |
| Naphthalene                          | 1   | 95.1742             | 0           | 100                   | 95       | 36          | 120         |
| 4-Chloroaniline                      | 1   | 66.2253             | 0           | 100                   | 66       | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 91.406              | 0           | 100                   | 91       | 38          | 120         |
| Caprolactam                          | 1   | 92.9287             | 0           | 100                   | 93       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 99.8015             | 0           | 100                   | 100      | 41          | 128         |
| 2-Methylnaphthalene                  | 1   | 94.5012             | 0           | 100                   | 95       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 110.9245            | 0           | 100                   | 111      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 95.0403             | 0           | 100                   | 95       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 111.4509            | 0           | 100                   | 111      | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 95.3923             | 0           | 100                   | 95       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 106.4675            | 0           | 100                   | 106      | 52          | 129         |
| 2,4,5-Trichlorophenol                | 1   | 95.0322             | 0           | 100                   | 95       | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 96.4045             | 0           | 100                   | 96       | 65          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 95.8254             | 0           | 100                   | 96       | 50          | 130         |
| Diphenyl Ether                       | 1   | 114.1075            | 0           | 100                   | 114      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 87.6347             | 0           | 100                   | 88       | 40          | 150         |
| Coumarin                             | 1   | 106.6203            | 0           | 100                   | 107      | 1           | 180         |
| Acenaphthylene                       | 1   | 104.7829            | 0           | 100                   | 105      | 54          | 126         |
| Dimethylphthalate                    | 1   | 96.0941             | 0           | 100                   | 96       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 101.8529            | 0           | 100                   | 102      | 68          | 137         |
| Acenaphthene                         | 1   | 94.8585             | 0           | 100                   | 95       | 60          | 132         |
| 3-Nitroaniline                       | 1   | 67.8766             | 0           | 100                   | 68       | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 82.5761             | 0           | 100                   | 83       | 1           | 173         |
| Dibenzofuran                         | 1   | 96.4206             | 0           | 100                   | 96       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 89.6786             | 0           | 100                   | 90       | 48          | 127         |
| 4-Nitrophenol                        | 1   | 79.7018             | 0           | 100                   | 80       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 90.4734             | 0           | 100                   | 90       | 50          | 130         |
| Fluorene                             | 1   | 95.1927             | 0           | 100                   | 95       | 70          | 120         |
| 4-Chlorophenyl-phenylether           | 1   | 94.174              | 0           | 100                   | 94       | 38          | 145         |
| Diethylphthalate                     | 1   | 95.4744             | 0           | 100                   | 95       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 51.3524             | 0           | 100                   | 51       | 40          | 150         |
| Atrazine                             | 1   | 90.1065             | 0           | 100                   | 90       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 99.9576             | 0           | 100                   | 100      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

**8101509 0604**

QC Batch: WMB71471

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 77.5825  | 0 | 100 | 78  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 101.9052 | 0 | 100 | 102 | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 101.1868 | 0 | 100 | 101 | 65 | 120 |
| Hexachlorobenzene          | 1 | 91.5121  | 0 | 100 | 92  | 8  | 142 |
| N-Octadecane               | 1 | 98.3309  | 0 | 100 | 98  | 50 | 130 |
| Pentachlorophenol          | 1 | 105.5476 | 0 | 100 | 106 | 38 | 152 |
| Phenanthrene               | 1 | 95.0333  | 0 | 100 | 95  | 65 | 120 |
| Anthracene                 | 1 | 96.5921  | 0 | 100 | 97  | 43 | 120 |
| Carbazole                  | 1 | 107.655  | 0 | 100 | 108 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 95.4054  | 0 | 100 | 95  | 8  | 120 |
| Fluoranthene               | 1 | 99.4451  | 0 | 100 | 99  | 43 | 121 |
| Pyrene                     | 1 | 97.3258  | 0 | 100 | 97  | 70 | 120 |
| Benzidine                  | 1 | 2.5529   | 0 | 100 | 2.6 | 1  | 134 |
| Butylbenzylphthalate       | 1 | 92.8719  | 0 | 100 | 93  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 13.9974  | 0 | 100 | 14  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 93.9256  | 0 | 100 | 94  | 42 | 133 |
| Chrysene                   | 1 | 86.1337  | 0 | 100 | 86  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 99.4964  | 0 | 100 | 99  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 96.5511  | 0 | 100 | 97  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 95.6713  | 0 | 100 | 96  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 99.6312  | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 91.8774  | 0 | 100 | 92  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.0319  | 0 | 100 | 93  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 98.3406  | 0 | 100 | 98  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 92.7831  | 0 | 100 | 93  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0605**

QC Batch: WMB71471

|                                      |                     |                       |
|--------------------------------------|---------------------|-----------------------|
| Data File                            | Sample ID:          | Analysis Date         |
| Spike or Dup: 10M71443.D             | AD07093-001(T)(MSD) | 10/19/2018 12:04:00 P |
| Duplicate(If applicable): 10M71442.D | AD07093-001(T)(MS)  | 10/19/2018 11:42:00 A |
| Inst Blank(If applicable):           |                     |                       |
| Method: 625.1                        | Matrix: Aqueous     | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD   | Limit |
|-----------------------------|--------|----------------------|-----------------------|-------|-------|
| 1,4-Dioxane                 | 1      | 88.3305              | 55.2785               | 46 *  | 20    |
| Pyridine                    | 1      | 45.0047              | 32.6502               | 32    | 40    |
| N-Nitrosodimethylamine      | 1      | 84.1121              | 62.0201               | 30 *  | 20    |
| Benzaldehyde                | 1      | 5.2704               | 129.9332              | 184 * | 20    |
| Aniline                     | 1      | 53.4628              | 50.9197               | 4.9   | 20    |
| Pentachloroethane           | 1      | 98.3648              | 69.6055               | 34 *  | 20    |
| bis(2-Chloroethyl)ether     | 1      | 90.1403              | 74.7132               | 19    | 108   |
| Phenol                      | 1      | 7.1413               | 14.9508               | 71 *  | 64    |
| 2-Chlorophenol              | 1      | 88.9105              | 12.2624               | 152 * | 61    |
| N-Decane                    | 1      | 91.7086              | 64.4722               | 35 *  | 20    |
| 1,3-Dichlorobenzene         | 1      | 84.6408              | 64.3333               | 27 *  | 20    |
| 1,4-Dichlorobenzene         | 1      | 84.5044              | 70.3069               | 18    | 40    |
| 1,2-Dichlorobenzene         | 1      | 81.216               | 69.5202               | 16    | 20    |
| Benzyl alcohol              | 1      | 93.475               | 82.3174               | 13    | 20    |
| bis(2-chloroisopropyl)ether | 1      | 76.3363              | 66.7257               | 13    | 76    |
| 2-Methylphenol              | 1      | 87.5182              | 34.987                | 86 *  | 40    |
| Acetophenone                | 1      | 109.4396             | 96.3639               | 13    | 20    |
| Hexachloroethane            | 1      | 88.7666              | 72.6457               | 20    | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 90.1977              | 83.1737               | 8.1   | 87    |
| 3&4-Methylphenol            | 1      | 96.6319              | 32.4659               | 99 *  | 40    |
| Nitrobenzene                | 1      | 94.429               | 86.3474               | 8.9   | 62    |
| Isophorone                  | 1      | 91.0974              | 87.0064               | 4.6   | 93    |
| 2-Nitrophenol               | 1      | 92.7584              | 12.7144               | 152 * | 55    |
| 2,4-Dimethylphenol          | 1      | 81.6805              | 61.2862               | 29    | 58    |
| Benzoic Acid                | 1      | 66.3912              | 0                     | 200 * | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 89.0525              | 85.3877               | 4.2   | 54    |
| 2,4-Dichlorophenol          | 1      | 95.1159              | 15.9488               | 143 * | 50    |
| 1,2,4-Trichlorobenzene      | 1      | 93.4757              | 81.0444               | 14    | 50    |
| Naphthalene                 | 1      | 95.1742              | 83.7282               | 13    | 65    |
| 4-Chloroaniline             | 1      | 66.2253              | 65.1713               | 1.6   | 20    |
| Hexachlorobutadiene         | 1      | 91.406               | 80.553                | 13    | 62    |
| Caprolactam                 | 1      | 92.9287              | 86.7465               | 6.9   | 20    |
| 4-Chloro-3-methylphenol     | 1      | 99.8015              | 31.7955               | 103 * | 73    |
| 2-Methylnaphthalene         | 1      | 94.5012              | 85.0747               | 10    | 20    |
| 1-Methylnaphthalene         | 1      | 110.9245             | 101.3638              | 9     | 20    |
| 1,1'-Biphenyl               | 1      | 95.0403              | 80.5449               | 17    | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 111.4509             | 96.8                  | 14    | 20    |
| Hexachlorocyclopentadiene   | 1      | 95.3923              | 78.1443               | 20    | 20    |
| 2,4,6-Trichlorophenol       | 1      | 106.4675             | 17.9304               | 142 * | 58    |
| 2,4,5-Trichlorophenol       | 1      | 95.0322              | 18.0698               | 136 * | 40    |
| 2-Chloronaphthalene         | 1      | 96.4045              | 87.9111               | 9.2   | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 95.8254              | 89.044                | 7.3   | 20    |
| Diphenyl Ether              | 1      | 114.1075             | 106.0297              | 7.3   | 20    |
| 2-Nitroaniline              | 1      | 87.6347              | 86.5766               | 1.2   | 20    |
| Coumarin                    | 1      | 106.6203             | 100.9706              | 5.4   | 20    |
| Acenaphthylene              | 1      | 104.7829             | 100.5225              | 4.2   | 74    |
| Dimethylphthalate           | 1      | 96.0941              | 94.2715               | 1.9   | 183   |
| 2,6-Dinitrotoluene          | 1      | 101.8529             | 97.9195               | 3.9   | 48    |
| Acenaphthene                | 1      | 94.8585              | 90.4985               | 4.7   | 48    |
| 3-Nitroaniline              | 1      | 67.8766              | 65.9536               | 2.9   | 20    |
| 2,4-Dinitrophenol           | 1      | 82.5761              | 0                     | 200 * | 132   |
| Dibenzofuran                | 1      | 96.4206              | 94.397                | 2.1   | 20    |
| 2,4-Dinitrotoluene          | 1      | 89.6786              | 90.3419               | 0.74  | 42    |
| 4-Nitrophenol               | 1      | 79.7018              | 7.4489                | 166 * | 131   |
| 2,3,4,6-Tetrachlorophenol   | 1      | 90.4734              | 18.9132               | 131 * | 20    |
| Fluorene                    | 1      | 95.1927              | 95.0732               | 0.13  | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 94.174               | 95.0356               | 0.91  | 61    |
| Diethylphthalate            | 1      | 95.4744              | 94.4871               | 1     | 100   |
| 4-Nitroaniline              | 1      | 51.3524              | 47.2109               | 8.4   | 20    |
| Atrazine                    | 1      | 90.1065              | 91.6642               | 1.7   | 20    |
| 4,6-Dinitro-2-methylphenol  | 1      | 99.9576              | 16.3941               | 144   | 203   |
| n-Nitrosodiphenylamine      | 1      | 77.5825              | 77.1501               | 0.56  | 20    |
| 1,2-Diphenylhydrazine       | 1      | 101.9052             | 99.3004               | 2.6   | 20    |



**Form3**  
**RPD Data Laboratory Limits**

**8101509 0606**

QC Batch: WMB71471

|                            |   |          |         |       |     |
|----------------------------|---|----------|---------|-------|-----|
| 4-Bromophenyl-phenylether  | 1 | 101.1868 | 98.0859 | 3.1   | 43  |
| Hexachlorobenzene          | 1 | 91.5121  | 92.5694 | 1.1   | 55  |
| N-Octadecane               | 1 | 98.3309  | 90.6702 | 8.1   | 20  |
| Pentachlorophenol          | 1 | 105.5476 | 17.6426 | 143 * | 86  |
| Phenanthrene               | 1 | 95.0333  | 96.0675 | 1.1   | 39  |
| Anthracene                 | 1 | 96.5921  | 97.2628 | 0.69  | 66  |
| Carbazole                  | 1 | 107.655  | 99.6684 | 7.7   | 20  |
| Di-n-butylphthalate        | 1 | 95.4054  | 94.9101 | 0.52  | 47  |
| Fluoranthene               | 1 | 99.4451  | 98.6962 | 0.76  | 66  |
| Pyrene                     | 1 | 97.3258  | 97.5634 | 0.24  | 49  |
| Benzidine                  | 1 | 2.5529   | 17.6601 | 149 * | 20  |
| Butylbenzylphthalate       | 1 | 92.8719  | 95.6995 | 3     | 60  |
| 3,3'-Dichlorobenzidine     | 1 | 13.9974  | 14.2338 | 1.7   | 108 |
| Benzo[a]anthracene         | 1 | 93.9256  | 94.5712 | 0.68  | 53  |
| Chrysene                   | 1 | 86.1337  | 85.3424 | 0.92  | 87  |
| bis(2-Ethylhexyl)phthalate | 1 | 99.4964  | 98.8794 | 0.62  | 82  |
| Di-n-octylphthalate        | 1 | 96.5511  | 96.1084 | 0.46  | 69  |
| Benzo[b]fluoranthene       | 1 | 95.6713  | 96.9413 | 1.3   | 71  |
| Benzo[k]fluoranthene       | 1 | 99.6312  | 97.7971 | 1.9   | 63  |
| Benzo[a]pyrene             | 1 | 91.8774  | 92.9984 | 1.2   | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 93.0319  | 94.603  | 1.7   | 99  |
| Dibenzo[a,h]anthracene     | 1 | 98.3406  | 99.0239 | 0.69  | 126 |
| Benzo[g,h,i]perylene       | 1 | 92.7831  | 92.8413 | 0.06  | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

8101509 0607

SampleID : AD07093-001(T)  
 Data File: 10M71441.D  
 Acq On : 10/19/18 11:20

Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 10M\_1000.M  
 Qt On : 10/19/18 11:59  
 Qt Upd On: 10/08/18 12:40

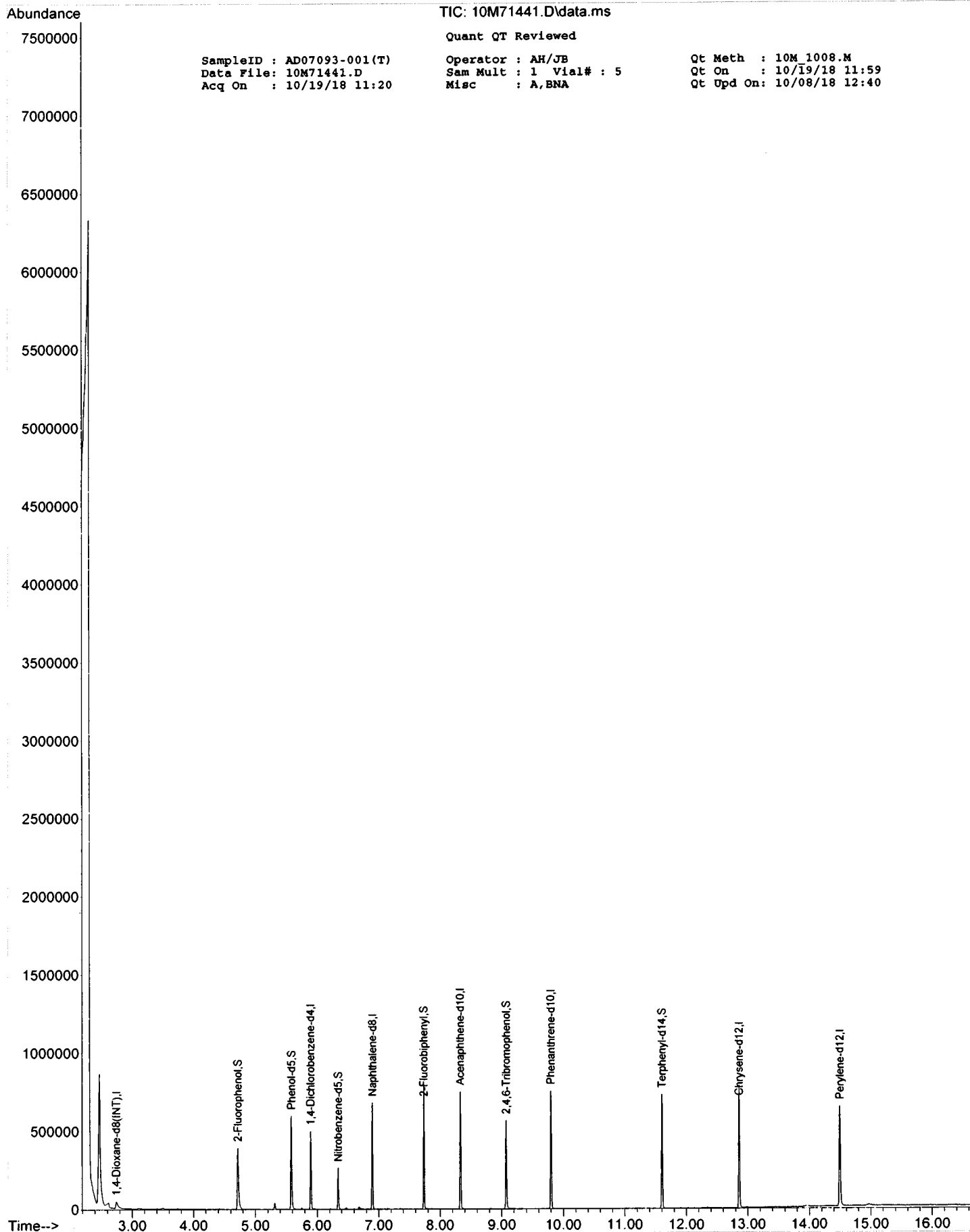
Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|--------|------|----------|-------|--------|----------|
| -----                       |        |      |          |       |        |          |
| Internal Standards          |        |      |          |       |        |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.743  | 96   | 40966    | 40.00 | ng     | 0.02     |
| 21) 1,4-Dichlorobenzene-d4  | 5.893  | 152  | 77883    | 40.00 | ng     | 0.00     |
| 31) Naphthalene-d8          | 6.899  | 136  | 279912   | 40.00 | ng     | 0.00     |
| 50) Acenaphthene-d10        | 8.327  | 164  | 174163   | 40.00 | ng     | 0.00     |
| 77) Phenanthrene-d10        | 9.798  | 188  | 298144   | 40.00 | ng     | 0.00     |
| 91) Chrysene-d12            | 12.857 | 240  | 306620   | 40.00 | ng     | 0.00     |
| 103) Perylene-d12           | 14.494 | 264  | 288590   | 40.00 | ng     | 0.00     |
| System Monitoring Compounds |        |      |          |       |        |          |
| 11) 2-Fluorophenol          | 4.717  | 112  | 171947   | 72.51 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 72.51% |          |
| 16) Phenol-d5               | 5.583  | 99   | 220376   | 68.66 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 68.66% |          |
| 32) Nitrobenzene-d5         | 6.343  | 128  | 33184    | 37.05 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 74.10% |          |
| 55) 2-Fluorobiphenyl        | 7.733  | 172  | 221248   | 39.68 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 79.36% |          |
| 80) 2,4,6-Tribromophenol    | 9.076  | 330  | 56984    | 81.18 | ng     | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery | =     | 81.18% |          |
| 94) Terphenyl-d14           | 11.600 | 244  | 225759   | 40.18 | ng     | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery | =     | 80.36% |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed





8101509 0609

SampleID : AD07093-001(T) (MS)  
 Data File : 10M71442.D  
 Acq On : 10/19/18 11:42

Operator : AH/JB  
 Sam Mult : 1 Vial# : 6  
 Misc : A,BNA

Qt Meth : 10M\_1000.M  
 Qt On : 10/19/18 15:11  
 Qt Upd On: 10/19/18 15:09

Data Path : G:\GcMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| -----                         |        |      |          |          |        |          |
| Internal Standards            |        |      |          |          |        |          |
| 7) 1,4-Dioxane-d8 (INT)       | 2.727  | 96   | 42154    | 40.00    | ng     | 0.00     |
| 21) 1,4-Dichlorobenzene-d4    | 5.894  | 152  | 80272    | 40.00    | ng     | 0.00     |
| 31) Naphthalene-d8            | 6.899  | 136  | 293840   | 40.00    | ng     | 0.00     |
| 50) Acenaphthene-d10          | 8.333  | 164  | 181195   | 40.00    | ng     | 0.00     |
| 77) Phenanthrene-d10          | 9.803  | 188  | 325017   | 40.00    | ng     | 0.00     |
| 91) Chrysene-d12              | 12.863 | 240  | 309448   | 40.00    | ng     | 0.00     |
| 103) Perylene-d12             | 14.494 | 264  | 306589   | 40.00    | ng     | 0.00     |
| System Monitoring Compounds   |        |      |          |          |        |          |
| 11) 2-Fluorophenol            | 4.717  | 112  | 16321m   | 6.69     | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 6.69%  |          |
| 16) Phenol-d5                 | 5.583  | 99   | 33239    | 10.06    | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 10.06% |          |
| 32) Nitrobenzene-d5           | 6.343  | 128  | 30660    | 35.10    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 70.20% |          |
| 55) 2-Fluorobiphenyl          | 7.733  | 172  | 184612   | 31.82    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 63.64% |          |
| 80) 2,4,6-Tribromophenol      | 9.076  | 330  | 12946    | 16.66    | ng     | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery | =        | 16.66% |          |
| 94) Terphenyl-d14             | 11.601 | 244  | 240792   | 42.47    | ng     | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery | =        | 84.94% |          |
| Target Compounds              |        |      |          |          |        |          |
|                               |        |      |          |          |        | Qvalue   |
| 8) 1,4-Dioxane                | 2.770  | 88   | 56157    | 55.2785  | ng     | 95       |
| 9) Pyridine                   | 3.262  | 79   | 75032    | 32.6502  | ng     | 78       |
| 10) N-Nitrosodimethylamine    | 3.187  | 74   | 87125    | 62.0201  | ng     | 82       |
| 12) Benzaldehyde              | 5.530  | 77   | 152616   | 129.9332 | ng     | 70       |
| 13) Aniline                   | 5.621  | 93   | 174212   | 50.9197  | ng     | 43       |
| 14) Pentachloroethane         | 5.658  | 117  | 64266    | 69.6055  | ng     | 72       |
| 15) bis(2-Chloroethyl) ether  | 5.674  | 93   | 182180   | 74.7132  | ng     | 77       |
| 17) Phenol                    | 5.594  | 94   | 48905    | 14.9508  | ng     | 83       |
| 18) 2-Chlorophenol            | 5.717  | 128  | 33502    | 12.2624  | ng     | 70       |
| 19) N-Decane                  | 5.749  | 57   | 138243   | 64.4722  | ng     | 78       |
| 20) 1,3-Dichlorobenzene       | 5.845  | 146  | 194896   | 64.3333  | ng     | 95       |
| 22) 1,4-Dichlorobenzene       | 5.910  | 146  | 207675   | 70.3069  | ng     | 97       |
| 23) 1,2-Dichlorobenzene       | 6.033  | 146  | 200662   | 69.5202  | ng     | 98       |
| 24) Benzyl alcohol            | 6.006  | 108  | 134073   | 82.3174  | ng     | 73       |
| 25) bis(2-chloroisopropyl)... | 6.113  | 45   | 182840   | 66.7257  | ng     | 76       |
| 26) 2-Methylphenol            | 6.097  | 108  | 81677    | 34.9870  | ng     | 97       |
| 27) Acetophenone              | 6.220  | 105  | 318581   | 96.3639  | ng     | 69       |
| 28) Hexachloroethane          | 6.305  | 117  | 83100    | 72.6457  | ng     | 90       |
| 29) N-Nitroso-di-n-propyla... | 6.220  | 70   | 128144   | 83.1737  | ng     | 82       |
| 30) 3&4-Methylphenol          | 6.214  | 108  | 71987    | 32.4659  | ng     | 86       |
| 33) Nitrobenzene              | 6.359  | 77   | 220443   | 86.3474  | ng     | 78       |
| 34) Isophorone                | 6.541  | 82   | 382310   | 87.0064  | ng     | 84       |
| 35) 2-Nitrophenol             | 6.605  | 139  | 17764    | 12.7144  | ng     | 90       |
| 36) 2,4-Dimethylphenol        | 6.626  | 107  | 159835   | 61.2862  | ng     | 94       |
| 38) bis(2-Chloroethoxy)met... | 6.701  | 93   | 235358   | 85.3877  | ng     | 96       |
| 39) 2,4-Dichlorophenol        | 6.787  | 162  | 36290    | 15.9488  | ng     | 84       |
| 40) 1,2,4-Trichlorobenzene    | 6.851  | 180  | 199910   | 81.0444  | ng     | 96       |
| 41) Naphthalene               | 6.915  | 128  | 646297   | 83.7282  | ng     | 99       |
| 42) 4-Chloroaniline           | 6.947  | 127  | 164650   | 65.1713  | ng     | 94       |
| 43) Hexachlorobutadiene       | 6.995  | 225  | 111233   | 80.5530  | ng     | 98       |
| 44) Caprolactam               | 7.209  | 113  | 74096    | 86.7465  | ng     | 62       |
| 45) 4-Chloro-3-methylphenol   | 7.316  | 107  | 66286    | 31.7955  | ng     | 71       |
| 46) 2-Methylnaphthalene       | 7.450  | 142  | 438241   | 85.0747  | ng     | 99       |
| 47) 1-Methylnaphthalene       | 7.530  | 142  | 513605   | 101.3638 | ng     | 94       |
| 49) 1,1'-Biphenyl             | 7.824  | 154  | 515621   | 80.5449  | ng     | 93       |
| 51) 1,2,4,5-Tetrachloroben... | 7.584  | 216  | 240420   | 96.8000  | ng     | 98       |
| 52) Hexachlorocyclopentadiene | 7.568  | 237  | 76680    | 78.1443  | ng     | 99       |
| 53) 2,4,6-Trichlorophenol     | 7.669  | 196  | 27056    | 17.9304  | ng     | 98       |
| 54) 2,4,5-Trichlorophenol     | 7.707  | 196  | 28961    | 18.0698  | ng     | 93       |
| 56) 2-Chloronaphthalene       | 7.851  | 162  | 420625   | 87.9111  | ng     | 91       |
| 57) 1,4-Dimethylnaphthalene   | 8.129  | 156  | 351639   | 89.0440  | ng     | 90       |
| 59) Diphenyl Ether            | 7.910  | 170  | 375872   | 106.0297 | ng     | 78       |
| 60) 2-Nitroaniline            | 7.931  | 65   | 147208   | 86.5766  | ng     | 36       |
| 61) Coumarin                  | 8.119  | 146  | 177902   | 100.9706 | ng     | 61       |
| 62) Acenaphthylene            | 8.210  | 152  | 709392   | 100.5225 | ng     | 99       |
| 63) Dimethylphthalate         | 8.065  | 163  | 526808   | 94.2715  | ng     | 99       |
| 64) 2,6-Dinitrotoluene        | 8.129  | 165  | 113875   | 97.9195  | ng     | 82       |
| 65) Acenaphthene              | 8.365  | 153  | 450365   | 90.4985  | ng     | 96       |
| 66) 3-Nitroaniline            | 8.284  | 138  | 91117    | 65.9536  | ng     | 70       |
| 67) 2,4-Dinitrophenol         | 8.386  | 184  | 3264     | 6.1288   | ng     | 37       |
| 68) Dibenzofuran              | 8.520  | 168  | 666691   | 94.3970  | ng     | 86       |

SampleID : AD07093-001(T) (MS) Operator : AH/JB Qt Meth : 10M 1008.M  
 Data File: 10M71442.D Sam Mult : 1 Vial# : 6 Qt On : 10/19/18 15:11  
 Acq On : 10/19/18 11:42 Misc : A,BNA Qt Upd On: 10/19/18 15:09

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

|      | Compound                  | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|------|---------------------------|--------|------|----------|---------|-------|----------|
| 69)  | 2,4-Dinitrotoluene        | 8.493  | 165  | 165489   | 90.3419 | ng    | 65       |
| 70)  | 4-Nitrophenol             | 8.418  | 65   | 7241     | 7.4489  | ng    | 72       |
| 71)  | 2,3,4,6-Tetrachlorophenol | 8.621  | 232  | 26412    | 18.9132 | ng    | 83       |
| 72)  | Fluorene                  | 8.841  | 166  | 542452   | 95.0732 | ng    | 98       |
| 73)  | 4-Chlorophenyl-phenyle... | 8.830  | 204  | 258724   | 95.0356 | ng    | 82       |
| 74)  | Diethylphthalate          | 8.702  | 149  | 521895   | 94.4871 | ng    | 96       |
| 75)  | 4-Nitroaniline            | 8.851  | 138  | 73133    | 47.2109 | ng    | 83       |
| 76)  | Atrazine                  | 9.472  | 200  | 169905   | 91.6642 | ng    | 96       |
| 78)  | 4,6-Dinitro-2-methylph... | 8.883  | 198  | 14550    | 16.3941 | ng    | 78       |
| 79)  | n-Nitrosodiphenylamine    | 8.942  | 169  | 378057   | 77.1501 | ng    | 98       |
| 81)  | 1,2-Diphenylhydrazine     | 8.985  | 77   | 593675   | 99.3004 | ng    | 84       |
| 82)  | 4-Bromophenyl-phenylether | 9.317  | 248  | 147640   | 98.0859 | ng    | 88       |
| 83)  | Hexachlorobenzene         | 9.392  | 284  | 149652   | 92.5694 | ng    | 70       |
| 84)  | N-Octadecane              | 9.638  | 57   | 249343   | 90.6702 | ng    | 74       |
| 85)  | Pentachlorophenol         | 9.589  | 266  | 12745    | 17.6426 | ng    | 96       |
| 86)  | Phenanthrene              | 9.830  | 178  | 824955   | 96.0675 | ng    | 99       |
| 87)  | Anthracene                | 9.884  | 178  | 847658   | 97.2628 | ng    | 99       |
| 88)  | Carbazole                 | 10.055 | 167  | 790269   | 99.6684 | ng    | 98       |
| 89)  | Di-n-butylphthalate       | 10.418 | 149  | 929905   | 94.9101 | ng    | 98       |
| 90)  | Fluoranthene              | 11.162 | 202  | 893864   | 98.6962 | ng    | 86       |
| 92)  | Pyrene                    | 11.429 | 202  | 930491   | 97.5634 | ng    | 82       |
| 93)  | Benzidine                 | 11.312 | 184  | 64002    | 17.6601 | ng    | 90       |
| 97)  | Butylbenzylphthalate      | 12.184 | 149  | 424282   | 95.6995 | ng    | 76       |
| 99)  | 3,3'-Dichlorobenzidine    | 12.815 | 252  | 41187    | 14.2338 | ng    | 91       |
| 100) | Benzo[a]anthracene        | 12.852 | 228  | 811972   | 94.5712 | ng    | 100      |
| 101) | Chrysene                  | 12.895 | 228  | 719573   | 85.3424 | ng    | 100      |
| 102) | bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 585335   | 98.8794 | ng    | 95       |
| 104) | Di-n-octylphthalate       | 13.617 | 149  | 993247   | 96.1084 | ng    | 99       |
| 105) | Benzo[b]fluoranthene      | 14.066 | 252  | 806589   | 96.9413 | ng    | 94       |
| 106) | Benzo[k]fluoranthene      | 14.098 | 252  | 801650m  | 97.7971 | ng    |          |
| 107) | Benzo[a]pyrene            | 14.435 | 252  | 751402   | 92.9984 | ng    | 93       |
| 108) | Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 804560   | 94.6030 | ng    | 86       |
| 109) | Dibenzo[a,h]anthracene    | 15.879 | 278  | 698604   | 99.0239 | ng    | 89       |
| 110) | Benzo[g,h,i]perylene      | 16.259 | 276  | 697300   | 92.8413 | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD07093-001(T) (MSD) Operator : AH/JB  
 Data File: 10M71443.D Sam Mult : 1 Vial# : 7  
 Acq On : 10/19/18 12:04 Misc : A,BNA

Qt Meth : 10M\_1008M  
 Qt On : 10/19/18 12:28  
 Qt Upd On: 10/08/18 12:40

8101509 0612

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| -----                          |        |      |            |          |       |          |
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.748  | 96   | 40101      | 40.00    | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.899  | 152  | 80918      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 293194     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 179963     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 314090     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 298000     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.499 | 264  | 288391     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.717  | 112  | 181827     | 78.33    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 78.33%   |       |          |
| 16) Phenol-d5                  | 5.583  | 99   | 255739     | 81.40    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 81.40%   |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 40639      | 42.95    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 85.90%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 235084     | 40.80    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 81.60%   |       |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 69252      | 93.94    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 93.94%   |       |          |
| 94) Terphenyl-d14              | 11.600 | 244  | 257169     | 47.10    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 94.20%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
|                                |        |      |            |          |       | Qvalue   |
| 8) 1,4-Dioxane                 | 2.786  | 88   | 85364      | 88.3305  | ng    | 87       |
| 9) Pyridine                    | 3.289  | 79   | 99885      | 45.0047  | ng    | 73       |
| 10) N-Nitrosodimethylamine     | 3.187  | 74   | 112405     | 84.1121  | ng    | 74       |
| 12) Benzaldehyde               | 5.594  | 77   | 5889       | 5.2704   | ng    | 15       |
| 13) Aniline                    | 5.621  | 93   | 174085     | 53.4628  | ng    | 98       |
| 14) Pentachloroethane          | 5.658  | 117  | 86396      | 98.3648  | ng    | 71       |
| 15) bis(2-Chloroethyl) ether   | 5.674  | 93   | 209040     | 90.1403  | ng    | 78       |
| 17) Phenol                     | 5.658  | 94   | 22222      | 7.1413   | ng    | 46       |
| 18) 2-Chlorophenol             | 5.717  | 128  | 231082     | 88.9105  | ng    | 75       |
| 19) N-Decane                   | 5.749  | 57   | 187067     | 91.7086  | ng    | 77       |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 243929m    | 84.6408  | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.909  | 146  | 251621     | 84.5044  | ng    | 97       |
| 23) 1,2-Dichlorobenzene        | 6.032  | 146  | 236307     | 81.2160  | ng    | 98       |
| 24) Benzyl alcohol             | 6.011  | 108  | 153471     | 93.4750  | ng    | 74       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 210858     | 76.3363  | ng    | 81       |
| 26) 2-Methylphenol             | 6.097  | 108  | 205955     | 87.5182  | ng    | 99       |
| 27) Acetophenone               | 6.225  | 105  | 364721     | 109.4396 | ng    | 66       |
| 28) Hexachloroethane           | 6.305  | 117  | 102358     | 88.7666  | ng    | 88       |
| 29) N-Nitroso-di-n-propyla...  | 6.220  | 70   | 140084     | 90.1977  | ng    | 84       |
| 30) 3&4-Methylphenol           | 6.220  | 108  | 215987     | 96.6319  | ng    | 96       |
| 33) Nitrobenzene               | 6.359  | 77   | 240545     | 94.4290  | ng    | 79       |
| 34) Isophorone                 | 6.541  | 82   | 399406     | 91.0974  | ng    | 87       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 129313     | 92.7584  | ng    | 93       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 212555     | 81.6805  | ng    | 96       |
| 37) Benzoic Acid               | 6.712  | 105  | 143679     | 66.3912  | ng    | 83       |
| 38) bis(2-Chloroethoxy)met...  | 6.701  | 93   | 244920     | 89.0525  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 215951     | 95.1159  | ng    | 84       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 230067     | 93.4757  | ng    | 98       |
| 41) Naphthalene                | 6.915  | 128  | 730475     | 95.1742  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 166945     | 66.2253  | ng    | 93       |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 125942     | 91.4060  | ng    | 95       |
| 44) Caprolactam                | 7.236  | 113  | 80108      | 92.9287  | ng    | 59       |
| 45) 4-Chloro-3-methylphenol    | 7.316  | 107  | 207605     | 99.8015  | ng    | 77       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 485729     | 94.5012  | ng    | 98       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 560813     | 110.9245 | ng    | 93       |
| 48) Methylnaphthalenes (To...  | 7.530  | 142  | 1039590m   | 204.2951 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 607078     | 95.0403  | ng    | 93       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 274926     | 111.4509 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.567  | 237  | 96255      | 95.3923  | ng    | 97       |
| 53) 2,4,6-Trichlorophenol      | 7.674  | 196  | 159561     | 106.4675 | ng    | 100      |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 151275     | 95.0322  | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 458127     | 96.4045  | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 375846     | 95.8254  | ng    | 93       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 375846     | 95.8254  | ng    | 93       |
| 59) Diphenyl Ether             | 7.910  | 170  | 401757     | 114.1075 | ng    | 80       |
| 60) 2-Nitroaniline             | 7.931  | 65   | 147994     | 87.6347  | ng    | 38       |
| 61) Coumarin                   | 8.118  | 146  | 186579     | 106.6203 | ng    | 60       |
| 62) Acenaphthylene             | 8.209  | 152  | 734430     | 104.7829 | ng    | 99       |
| 63) Dimethylphthalate          | 8.065  | 163  | 533342     | 96.0941  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 117644     | 101.8529 | ng    | 86       |
| 65) Acenaphthene               | 8.364  | 153  | 468853     | 94.8585  | ng    | 96       |

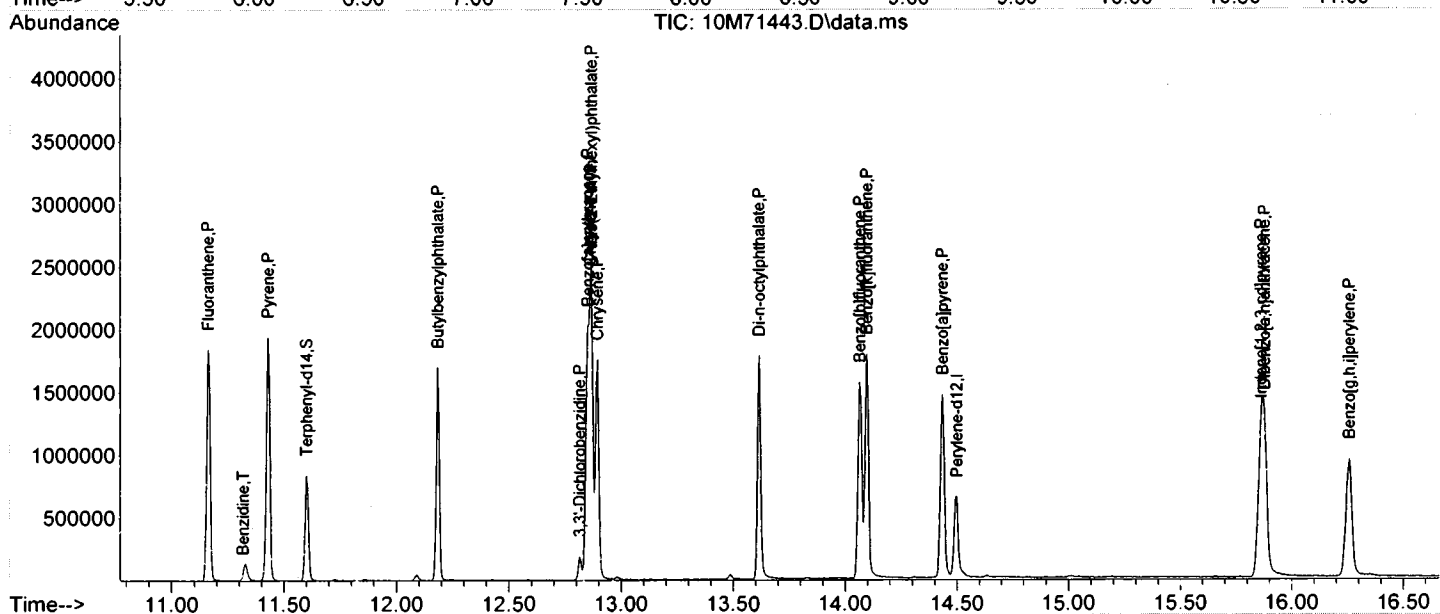
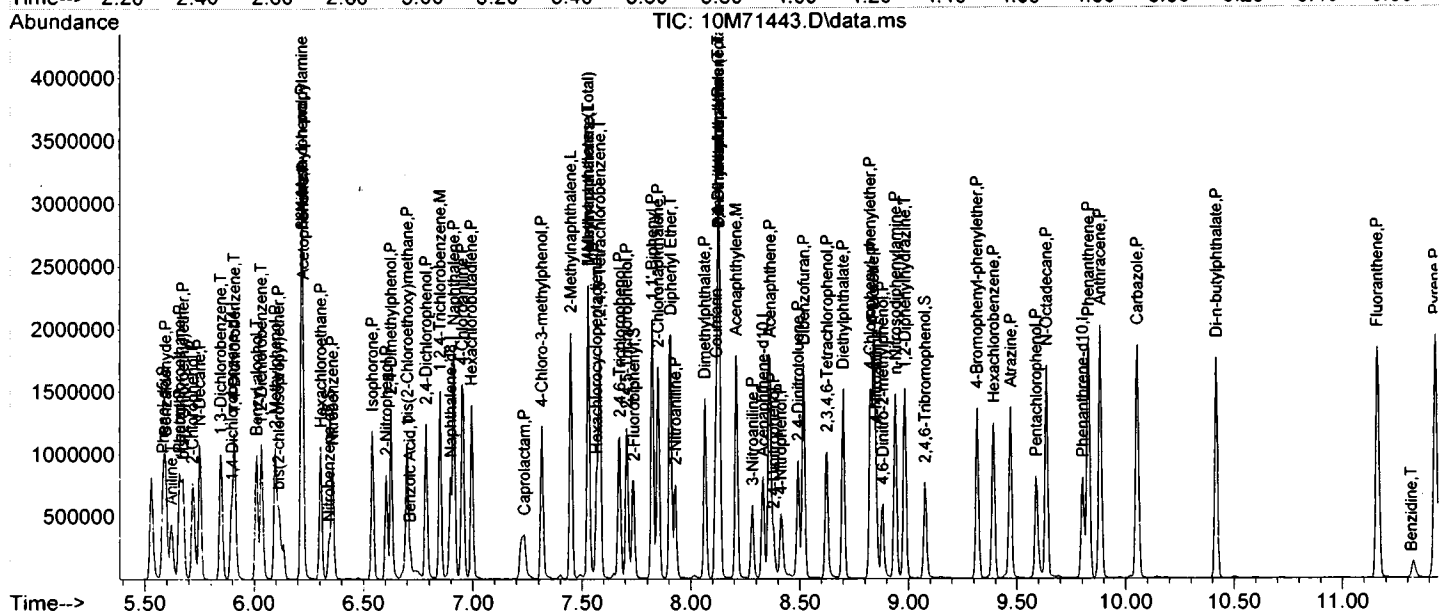
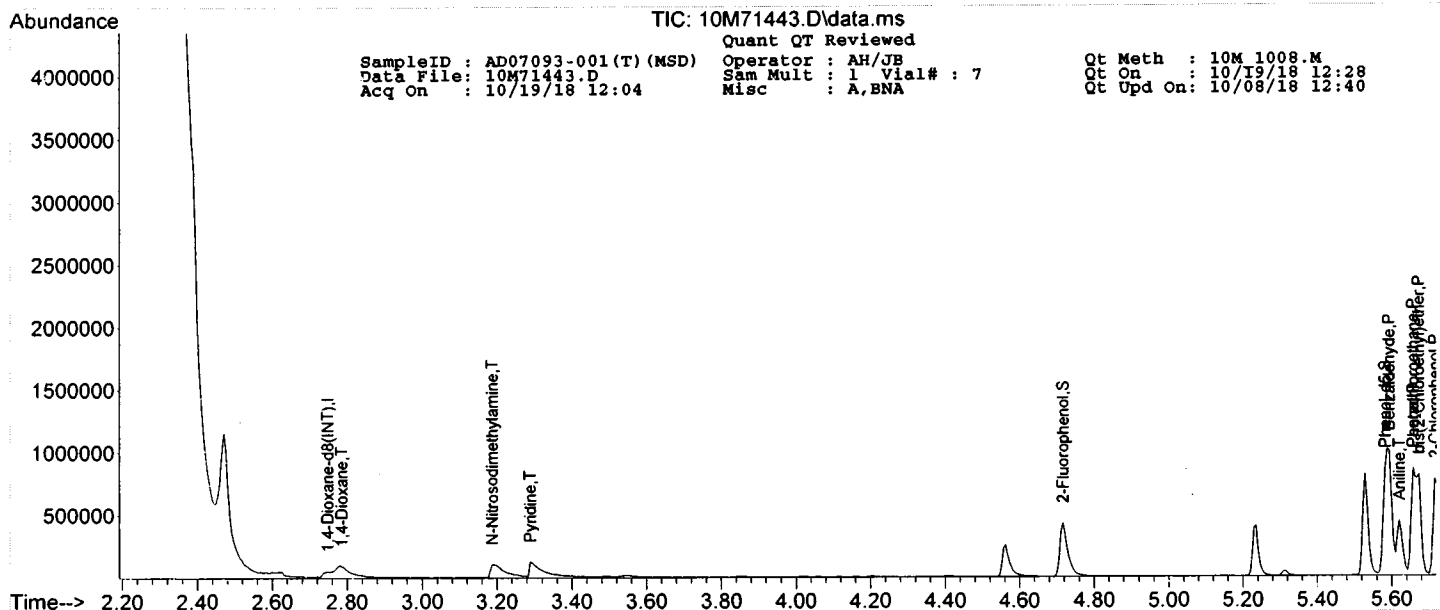
SampleID : AD07093-001(T) (MSD) Operator : AH/JB Qt Meth : 10M\_1008.M  
 Data File: 10M71443.D Sam Mult : 1 Vial# : 7 Qt On : 10/19/18 12:28  
 Acq On : 10/19/18 12:04 Misc : A,BNA Qt Upd On: 10/08/18 12:40

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 92957    | 67.8766  | ng    | 77       |
| 67) 2,4-Dinitrophenol          | 8.380  | 184  | 58385    | 82.5761  | ng    | 37       |
| 68) Dibenzofuran               | 8.520  | 168  | 675811   | 96.4206  | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 163152   | 89.6786  | ng    | 67       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 80984    | 79.7018  | ng    | 69       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.627  | 232  | 125486   | 90.4734  | ng    | 85       |
| 72) Fluorene                   | 8.840  | 166  | 539441   | 95.1927  | ng    | 97       |
| 73) 4-Chlorophenyl-phenyle...  | 8.824  | 204  | 254635   | 94.1740  | ng    | 86       |
| 74) Diethylphthalate           | 8.701  | 149  | 523763   | 95.4744  | ng    | 97       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 79170    | 51.3524  | ng    | 94       |
| 76) Atrazine                   | 9.472  | 200  | 165882   | 90.1065  | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.883  | 198  | 96006    | 99.9576  | ng    | 63       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 367394   | 77.5825  | ng    | 97       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 588765   | 101.9052 | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.316  | 248  | 147187   | 101.1868 | ng    | 90       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 142969   | 91.5121  | ng    | 71       |
| 84) N-Octadecane               | 9.637  | 57   | 261319   | 98.3309  | ng    | 76       |
| 85) Pentachlorophenol          | 9.589  | 266  | 87914    | 105.5476 | ng    | 97       |
| 86) Phenanthrene               | 9.830  | 178  | 788638   | 95.0333  | ng    | 100      |
| 87) Anthracene                 | 9.883  | 178  | 813511   | 96.5921  | ng    | 100      |
| 88) Carbazole                  | 10.055 | 167  | 824897   | 107.6550 | ng    | 96       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 903090   | 95.4054  | ng    | 98       |
| 90) Fluoranthene               | 11.162 | 202  | 870367   | 99.4451  | ng    | 85       |
| 92) Pyrene                     | 11.429 | 202  | 893885   | 97.3258  | ng    | 82       |
| 93) Benzidine                  | 11.317 | 184  | 8789     | 2.5529   | ng    | 83       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 394285   | 92.8719  | ng    | 77       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 39007    | 13.9974  | ng    | 89       |
| 100) Benzo[a]anthracene        | 12.852 | 228  | 776595   | 93.9256  | ng    | 99       |
| 101) Chrysene                  | 12.895 | 228  | 699377   | 86.1337  | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 567198   | 99.4964  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 938610   | 96.5511  | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 748773m  | 95.6713  | ng    |          |
| 106) Benzo[k]fluoranthene      | 14.098 | 252  | 768209   | 99.6312  | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 698282   | 91.8774  | ng    | 92       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 744236   | 93.0319  | ng    | 93       |
| 109) Dibenzo[a,h]anthracene    | 15.879 | 278  | 652603   | 98.3406  | ng    | 88       |
| 110) Benzo[g,h,i]perylene      | 16.259 | 276  | 655500   | 92.7831  | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

|                                      |                    |                       |
|--------------------------------------|--------------------|-----------------------|
| Data File                            | Sample ID:         | Analysis Date         |
| Spike or Dup: 5M105898.D             | AD06939-001(T)(MS) | 10/22/2018 8:58:00 AM |
| Non Spike(If applicable): 5M105897.D | AD06939-001(T)     | 10/22/2018 8:35:00 AM |
| Inst Blank(If applicable):           |                    |                       |

Method: 625.1

Matrix: Aqueous

QC Type: MS

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 77.857     | 0           | 100           | 78       | 20          | 160         |
| Pyridine                    | 1   | 7.983      | 0           | 100           | 8        | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 86.8562    | 0           | 100           | 87       | 20          | 150         |
| Benzaldehyde                | 1   | 141.2897   | 0           | 100           | 141      | 20          | 234         |
| Aniline                     | 1   | 35.8284    | 0           | 100           | 36       | 20          | 150         |
| Pentachloroethane           | 1   | 86.9434    | 0           | 100           | 87       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 87.5754    | 0           | 100           | 88       | 12          | 158         |
| N-Decane                    | 1   | 70.4172    | 0           | 100           | 70       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 82.7246    | 0           | 100           | 83       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 83.6878    | 0           | 100           | 84       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 84.6299    | 0           | 100           | 85       | 25          | 130         |
| Benzyl alcohol              | 1   | 102.3139   | 0           | 100           | 102      | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 77.4704    | 0           | 100           | 77       | 36          | 166         |
| Acetophenone                | 1   | 98.2235    | 0           | 100           | 98       | 50          | 130         |
| Hexachloroethane            | 1   | 81.9007    | 0           | 100           | 82       | 40          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 84.8854    | 0           | 100           | 85       | 1           | 230         |
| Nitrobenzene                | 1   | 94.825     | 0           | 100           | 95       | 35          | 180         |
| Isophorone                  | 1   | 99.9692    | 0           | 100           | 100      | 21          | 196         |
| Benzoic Acid                | 1   | 44.0751    | 0           | 100           | 44       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.544     | 0           | 100           | 96       | 33          | 184         |
| 1,2,4-Trichlorobenzene      | 1   | 93.5408    | 0           | 100           | 94       | 44          | 142         |
| Naphthalene                 | 1   | 92.2102    | 7.6512      | 100           | 85       | 21          | 133         |
| 4-Chloroaniline             | 1   | 105.1189   | 0           | 100           | 105      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 93.1214    | 0           | 100           | 93       | 24          | 120         |
| Caprolactam                 | 1   | 102.6359   | 0           | 100           | 103      | 5           | 130         |
| 2-Methylnaphthalene         | 1   | 103.4607   | 0           | 100           | 103      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 110.2842   | 0           | 100           | 110      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 91.0241    | 0           | 100           | 91       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 107.0762   | 0           | 100           | 107      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 96.9201    | 0           | 100           | 97       | 20          | 130         |
| 2-Chloronaphthalene         | 1   | 103.2298   | 0           | 100           | 103      | 60          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 89.7472    | 0           | 100           | 90       | 50          | 130         |
| Diphenyl Ether              | 1   | 110.7226   | 0           | 100           | 111      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.5482    | 0           | 100           | 98       | 40          | 150         |
| Coumarin                    | 1   | 103.8067   | 0           | 100           | 104      | 1           | 180         |
| Acenaphthylene              | 1   | 111.5918   | 0           | 100           | 112      | 33          | 145         |
| Dimethylphthalate           | 1   | 105.915    | 0           | 100           | 106      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 100.5232   | 0           | 100           | 101      | 50          | 158         |
| Acenaphthene                | 1   | 102.3924   | 0           | 100           | 102      | 47          | 145         |
| 3-Nitroaniline              | 1   | 118.0802   | 0           | 100           | 118      | 40          | 150         |
| Dibenzofuran                | 1   | 101.5379   | 0           | 100           | 102      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 101.0231   | 0           | 100           | 101      | 39          | 139         |
| Fluorene                    | 1   | 105.124    | 0           | 100           | 105      | 59          | 121         |
| 4-Chlorophenyl-phenylether  | 1   | 105.706    | 0           | 100           | 106      | 1           | 132         |
| Diethylphthalate            | 1   | 105.2871   | 0           | 100           | 105      | 1           | 120         |
| 4-Nitroaniline              | 1   | 103.0135   | 0           | 100           | 103      | 40          | 150         |
| Atrazine                    | 1   | 105.6294   | 0           | 100           | 106      | 40          | 150         |
| n-Nitrosodiphenylamine      | 1   | 82.2599    | 0           | 100           | 82       | 30          | 130         |
| 1,2-Diphenylhydrazine       | 1   | 90.8987    | 0           | 100           | 91       | 40          | 130         |
| 4-Bromophenyl-phenylether   | 1   | 108.8576   | 0           | 100           | 109      | 53          | 127         |
| Hexachlorobenzene           | 1   | 106.1678   | 0           | 100           | 106      | 1           | 152         |
| N-Octadecane                | 1   | 81.4795    | 0           | 100           | 81       | 50          | 130         |
| Phenanthrene                | 1   | 101.4946   | 0           | 100           | 101      | 54          | 120         |
| Anthracene                  | 1   | 104.5216   | 0           | 100           | 105      | 27          | 133         |
| Carbazole                   | 1   | 103.0421   | 0           | 100           | 103      | 40          | 130         |
| Di-n-butylphthalate         | 1   | 98.1155    | 0           | 100           | 98       | 1           | 120         |
| Fluoranthene                | 1   | 101.0344   | 0           | 100           | 101      | 26          | 137         |
| Pyrene                      | 1   | 110.9075   | 0           | 100           | 111      | 52          | 120         |
| Benzidine                   | 1   | 0          | 0           | 100           | 0*       | 1           | 130         |
| Butylbenzylphthalate        | 1   | 101.2463   | 0           | 100           | 101      | 1           | 152         |
| 3,3'-Dichlorobenzidine      | 1   | 97.2949    | 0           | 100           | 97       | 1           | 262         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| Benzo[a]anthracene         | 1 | 108.0028 | 0 | 100 | 108 | 33 | 143 |
| Chrysene                   | 1 | 97.4313  | 0 | 100 | 97  | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 99.563   | 0 | 100 | 100 | 8  | 158 |
| Di-n-octylphthalate        | 1 | 102.6505 | 0 | 100 | 103 | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 116.2156 | 0 | 100 | 116 | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 114.4713 | 0 | 100 | 114 | 11 | 162 |
| Benzo[a]pyrene             | 1 | 101.046  | 0 | 100 | 101 | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 102.6149 | 0 | 100 | 103 | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 104.7473 | 0 | 100 | 105 | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 105.0016 | 0 | 100 | 105 | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: WMB71479

|                                      |                     |                       |
|--------------------------------------|---------------------|-----------------------|
| Data File                            | Sample ID:          | Analysis Date         |
| Spike or Dup: 5M105899.D             | AD06939-001(T)(MSD) | 10/22/2018 9:21:00 AM |
| Non Spike(If applicable): 5M105897.D | AD06939-001(T)      | 10/22/2018 8:35:00 AM |
| Inst Blank(If applicable):           |                     |                       |

Method: 625.1

Matrix: Aqueous

QC Type: MSD

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 76.3499    | 0           | 100           | 76       | 20          | 160         |
| Pyridine                    | 1   | 11.552     | 0           | 100           | 12       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 84.4133    | 0           | 100           | 84       | 20          | 150         |
| Benzaldehyde                | 1   | 147.0652   | 0           | 100           | 147      | 20          | 234         |
| Aniline                     | 1   | 35.1592    | 0           | 100           | 35       | 20          | 150         |
| Pentachloroethane           | 1   | 91.8136    | 0           | 100           | 92       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 85.5288    | 0           | 100           | 86       | 43          | 126         |
| N-Decane                    | 1   | 76.564     | 0           | 100           | 77       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 79.8158    | 0           | 100           | 80       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 84.5277    | 0           | 100           | 85       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 87.1238    | 0           | 100           | 87       | 25          | 130         |
| Benzyl alcohol              | 1   | 106.5976   | 0           | 100           | 107      | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 79.2527    | 0           | 100           | 79       | 63          | 139         |
| Acetophenone                | 1   | 104.9483   | 0           | 100           | 105      | 50          | 130         |
| Hexachloroethane            | 1   | 84.3678    | 0           | 100           | 84       | 55          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 85.1915    | 0           | 100           | 85       | 14          | 198         |
| Nitrobenzene                | 1   | 96.3637    | 0           | 100           | 96       | 54          | 158         |
| Isophorone                  | 1   | 100.1544   | 0           | 100           | 100      | 47          | 180         |
| Benzoic Acid                | 1   | 54.5759    | 0           | 100           | 55       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 95.3517    | 0           | 100           | 95       | 49          | 165         |
| 1,2,4-Trichlorobenzene      | 1   | 93.6737    | 0           | 100           | 94       | 57          | 130         |
| Naphthalene                 | 1   | 92.6424    | 7.6512      | 100           | 85       | 36          | 120         |
| 4-Chloroaniline             | 1   | 105.2263   | 0           | 100           | 105      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 96.2439    | 0           | 100           | 96       | 38          | 120         |
| Caprolactam                 | 1   | 111.1943   | 0           | 100           | 111      | 5           | 130         |
| 2-Methylnaphthalene         | 1   | 106.2374   | 0           | 100           | 106      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 116.412    | 0           | 100           | 116      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 96.76      | 0           | 100           | 97       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 113.785    | 0           | 100           | 114      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 102.1635   | 0           | 100           | 102      | 20          | 130         |
| 2-Chloronaphthalene         | 1   | 102.5285   | 0           | 100           | 103      | 65          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 93.9595    | 0           | 100           | 94       | 50          | 130         |
| Diphenyl Ether              | 1   | 117.8408   | 0           | 100           | 118      | 50          | 140         |
| 2-Nitroaniline              | 1   | 99.2824    | 0           | 100           | 99       | 40          | 150         |
| Coumarin                    | 1   | 107.7802   | 0           | 100           | 108      | 1           | 180         |
| Acenaphthylene              | 1   | 110.0305   | 0           | 100           | 110      | 54          | 126         |
| Dimethylphthalate           | 1   | 104.3451   | 0           | 100           | 104      | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 97.3107    | 0           | 100           | 97       | 68          | 137         |
| Acenaphthene                | 1   | 99.6918    | 0           | 100           | 100      | 60          | 132         |
| 3-Nitroaniline              | 1   | 116.3944   | 0           | 100           | 116      | 40          | 150         |
| Dibenzofuran                | 1   | 101.9938   | 0           | 100           | 102      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 100.4151   | 0           | 100           | 100      | 48          | 127         |
| Fluorene                    | 1   | 102.5783   | 0           | 100           | 103      | 70          | 120         |
| 4-Chlorophenyl-phenylether  | 1   | 103.3601   | 0           | 100           | 103      | 38          | 145         |
| Diethylphthalate            | 1   | 100.8704   | 0           | 100           | 101      | 1           | 120         |
| 4-Nitroaniline              | 1   | 103.8011   | 0           | 100           | 104      | 40          | 150         |
| Atrazine                    | 1   | 108.1861   | 0           | 100           | 108      | 40          | 150         |
| n-Nitrosodiphenylamine      | 1   | 84.05      | 0           | 100           | 84       | 30          | 130         |
| 1,2-Diphenylhydrazine       | 1   | 99.3625    | 0           | 100           | 99       | 40          | 130         |
| 4-Bromophenyl-phenylether   | 1   | 108.3889   | 0           | 100           | 108      | 65          | 120         |
| Hexachlorobenzene           | 1   | 106.0492   | 0           | 100           | 106      | 8           | 142         |
| N-Octadecane                | 1   | 87.2404    | 0           | 100           | 87       | 50          | 130         |
| Phenanthrene                | 1   | 104.4312   | 0           | 100           | 104      | 65          | 120         |
| Anthracene                  | 1   | 104.2935   | 0           | 100           | 104      | 43          | 120         |
| Carbazole                   | 1   | 110.2573   | 0           | 100           | 110      | 40          | 130         |
| Di-n-butylphthalate         | 1   | 99.3534    | 0           | 100           | 99       | 8           | 120         |
| Fluoranthene                | 1   | 102.8683   | 0           | 100           | 103      | 43          | 121         |
| Pyrene                      | 1   | 107.8023   | 0           | 100           | 108      | 70          | 120         |
| Benzidine                   | 1   | 2.389      | 0           | 100           | 2.4      | 1           | 134         |
| Butylbenzylphthalate        | 1   | 100.872    | 0           | 100           | 101      | 1           | 140         |
| 3,3'-Dichlorobenzidine      | 1   | 96.9888    | 0           | 100           | 97       | 8           | 213         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Form3

## Recovery Data Laboratory Limits

QC Batch: WMB71479

|                            |   |          |   |     |     |    |     |
|----------------------------|---|----------|---|-----|-----|----|-----|
| Benzo[a]anthracene         | 1 | 102.2728 | 0 | 100 | 102 | 42 | 133 |
| Chrysene                   | 1 | 93.8333  | 0 | 100 | 94  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 98.532   | 0 | 100 | 99  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 99.4593  | 0 | 100 | 99  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 112.0012 | 0 | 100 | 112 | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 108.7855 | 0 | 100 | 109 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 97.9594  | 0 | 100 | 98  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.5223  | 0 | 100 | 100 | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 100.8959 | 0 | 100 | 101 | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 100.3366 | 0 | 100 | 100 | 1  | 195 |

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: WMB71479**

**8101509 0619**

|                                      |                     |                       |
|--------------------------------------|---------------------|-----------------------|
| Data File                            | Sample ID:          | Analysis Date         |
| Spike or Dup: 5M105899.D             | AD06939-001(T)(MSD) | 10/22/2018 9:21:00 AM |
| Duplicate(If applicable): 5M105898.D | AD06939-001(T)(MS)  | 10/22/2018 8:58:00 AM |
| Inst Blank(If applicable):           |                     |                       |
| Method: 625.1                        | Matrix: Aqueous     | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD  | Limit |
|-----------------------------|--------|----------------------|-----------------------|------|-------|
| 1,4-Dioxane                 | 1      | 76.3499              | 77.857                | 2    | 20    |
| Pyridine                    | 1      | 11.552               | 7.983                 | 37   | 40    |
| N-Nitrosodimethylamine      | 1      | 84.4133              | 86.8562               | 2.9  | 20    |
| Benzaldehyde                | 1      | 147.0652             | 141.2897              | 4    | 20    |
| Aniline                     | 1      | 35.1592              | 35.8284               | 1.9  | 20    |
| Pentachloroethane           | 1      | 91.8136              | 86.9434               | 5.4  | 20    |
| bis(2-Chloroethyl)ether     | 1      | 85.5288              | 87.5754               | 2.4  | 108   |
| N-Decane                    | 1      | 76.564               | 70.4172               | 8.4  | 20    |
| 1,3-Dichlorobenzene         | 1      | 79.8158              | 82.7246               | 3.6  | 20    |
| 1,4-Dichlorobenzene         | 1      | 84.5277              | 83.6878               | 1    | 40    |
| 1,2-Dichlorobenzene         | 1      | 87.1238              | 84.6299               | 2.9  | 20    |
| Benzyl alcohol              | 1      | 106.5976             | 102.3139              | 4.1  | 20    |
| bis(2-chloroisopropyl)ether | 1      | 79.2527              | 77.4704               | 2.3  | 76    |
| Acetophenone                | 1      | 104.9483             | 98.2235               | 6.6  | 20    |
| Hexachloroethane            | 1      | 84.3678              | 81.9007               | 3    | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 85.1915              | 84.8854               | 0.36 | 87    |
| Nitrobenzene                | 1      | 96.3637              | 94.825                | 1.6  | 62    |
| Isophorone                  | 1      | 100.1544             | 99.9692               | 0.19 | 93    |
| Benzoic Acid                | 1      | 54.5759              | 44.0751               | 21*  | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 95.3517              | 95.544                | 0.2  | 54    |
| 1,2,4-Trichlorobenzene      | 1      | 93.6737              | 93.5408               | 0.14 | 50    |
| Naphthalene                 | 1      | 92.6424              | 92.2102               | 0.47 | 65    |
| 4-Chloroaniline             | 1      | 105.2263             | 105.1189              | 0.1  | 20    |
| Hexachlorobutadiene         | 1      | 96.2439              | 93.1214               | 3.3  | 62    |
| Caprolactam                 | 1      | 111.1943             | 102.6359              | 8    | 20    |
| 2-Methylnaphthalene         | 1      | 106.2374             | 103.4607              | 2.6  | 20    |
| 1-Methylnaphthalene         | 1      | 116.412              | 110.2842              | 5.4  | 20    |
| 1,1'-Biphenyl               | 1      | 96.76                | 91.0241               | 6.1  | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 113.785              | 107.0762              | 6.1  | 20    |
| Hexachlorocyclopentadiene   | 1      | 102.1635             | 96.9201               | 5.3  | 20    |
| 2-Chloronaphthalene         | 1      | 102.5285             | 103.2298              | 0.68 | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 93.9595              | 89.7472               | 4.6  | 20    |
| Diphenyl Ether              | 1      | 117.8408             | 110.7226              | 6.2  | 20    |
| 2-Nitroaniline              | 1      | 99.2824              | 97.5482               | 1.8  | 20    |
| Coumarin                    | 1      | 107.7802             | 103.8067              | 3.8  | 20    |
| Acenaphthylene              | 1      | 110.0305             | 111.5918              | 1.4  | 74    |
| Dimethylphthalate           | 1      | 104.3451             | 105.915               | 1.5  | 183   |
| 2,6-Dinitrotoluene          | 1      | 97.3107              | 100.5232              | 3.2  | 48    |
| Acenaphthene                | 1      | 99.6918              | 102.3924              | 2.7  | 48    |
| 3-Nitroaniline              | 1      | 116.3944             | 118.0802              | 1.4  | 20    |
| Dibenzofuran                | 1      | 101.9938             | 101.5379              | 0.45 | 20    |
| 2,4-Dinitrotoluene          | 1      | 100.4151             | 101.0231              | 0.6  | 42    |
| Fluorene                    | 1      | 102.5783             | 105.124               | 2.5  | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 103.3601             | 105.706               | 2.2  | 61    |
| Diethylphthalate            | 1      | 100.8704             | 105.2871              | 4.3  | 100   |
| 4-Nitroaniline              | 1      | 103.8011             | 103.0135              | 0.76 | 20    |
| Atrazine                    | 1      | 108.1861             | 105.6294              | 2.4  | 20    |
| n-Nitrosodiphenylamine      | 1      | 84.05                | 82.2599               | 2.2  | 20    |
| 1,2-Diphenylhydrazine       | 1      | 99.3625              | 90.8987               | 8.9  | 20    |
| 4-Bromophenyl-phenylether   | 1      | 108.3889             | 108.8576              | 0.43 | 43    |
| Hexachlorobenzene           | 1      | 106.0492             | 106.1678              | 0.11 | 55    |
| N-Octadecane                | 1      | 87.2404              | 81.4795               | 6.8  | 20    |
| Phenanthrene                | 1      | 104.4312             | 101.4946              | 2.9  | 39    |
| Anthracene                  | 1      | 104.2935             | 104.5216              | 0.22 | 66    |
| Carbazole                   | 1      | 110.2573             | 103.0421              | 6.8  | 20    |
| Di-n-butylphthalate         | 1      | 99.3534              | 98.1155               | 1.3  | 47    |
| Fluoranthene                | 1      | 102.8683             | 101.0344              | 1.8  | 66    |
| Pyrene                      | 1      | 107.8023             | 110.9075              | 2.8  | 49    |
| Benidine                    | 1      | 2.389                | 0                     | 200* | 20    |
| Butylbenzylphthalate        | 1      | 100.872              | 101.2463              | 0.37 | 60    |
| 3,3'-Dichlorobenzidine      | 1      | 96.9888              | 97.2949               | 0.32 | 108   |
| Benzo[a]anthracene          | 1      | 102.2728             | 108.0028              | 5.4  | 53    |
| Chrysene                    | 1      | 93.8333              | 97.4313               | 3.8  | 87    |

**Form3**  
**RPD Data Laboratory Limits**

QC Batch: WMB71479

|                            |   |          |          |     |     |
|----------------------------|---|----------|----------|-----|-----|
| bis(2-Ethylhexyl)phthalate | 1 | 98.532   | 99.563   | 1   | 82  |
| Di-n-octylphthalate        | 1 | 99.4593  | 102.6505 | 3.2 | 69  |
| Benzo[b]fluoranthene       | 1 | 112.0012 | 116.2156 | 3.7 | 71  |
| Benzo[k]fluoranthene       | 1 | 108.7855 | 114.4713 | 5.1 | 63  |
| Benzo[a]pyrene             | 1 | 97.9594  | 101.046  | 3.1 | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 99.5223  | 102.6149 | 3.1 | 99  |
| Dibenzo[a,h]anthracene     | 1 | 100.8959 | 104.7473 | 3.7 | 126 |
| Benzo[g,h,i]perylene       | 1 | 100.3366 | 105.0016 | 4.5 | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD06939-001(T)  
Data File: 5M105897.D  
Acq On : 10/22/18 08:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/22/18 11:51  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GcmsData\2018\GCMS\_5\Data\10-22-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 7) 1,4-Dioxane-d8 (INT)    | 2.526  | 96   | 55340    | 40.00 | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4 | 5.737  | 152  | 94159    | 40.00 | ng    | 0.00     |
| 31) Naphthalene-d8         | 6.747  | 136  | 342580   | 40.00 | ng    | 0.00     |
| 50) Acenaphthene-d10       | 8.162  | 164  | 201361   | 40.00 | ng    | 0.00     |
| 77) Phenanthrene-d10       | 9.610  | 188  | 349049   | 40.00 | ng    | 0.00     |
| 91) Chrysene-d12           | 12.660 | 240  | 324536   | 40.00 | ng    | 0.00     |
| 103) Perylene-d12          | 14.274 | 264  | 266462   | 40.00 | ng    | 0.00     |

## System Monitoring Compounds

|                          |         |     |          |       |        |      |
|--------------------------|---------|-----|----------|-------|--------|------|
| 11) 2-Fluorophenol       | 4.540   | 112 | 134870   | 46.95 | ng     | 0.00 |
| Spiked Amount            | 100.000 |     | Recovery | =     | 46.95% |      |
| 16) Phenol-d5            | 5.427   | 99  | 161587   | 36.47 | ng     | 0.00 |
| Spiked Amount            | 100.000 |     | Recovery | =     | 36.47% |      |
| 32) Nitrobenzene-d5      | 6.196   | 128 | 29625    | 29.30 | ng     | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =     | 58.60% |      |
| 55) 2-Fluorobiphenyl     | 7.580   | 172 | 185586   | 28.82 | ng     | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =     | 57.64% |      |
| 80) 2,4,6-Tribromophenol | 8.894   | 330 | 40753    | 62.35 | ng     | 0.00 |
| Spiked Amount            | 100.000 |     | Recovery | =     | 62.35% |      |
| 94) Terphenyl-d14        | 11.410  | 244 | 197430   | 38.03 | ng     | 0.00 |
| Spiked Amount            | 50.000  |     | Recovery | =     | 76.06% |      |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Abundance

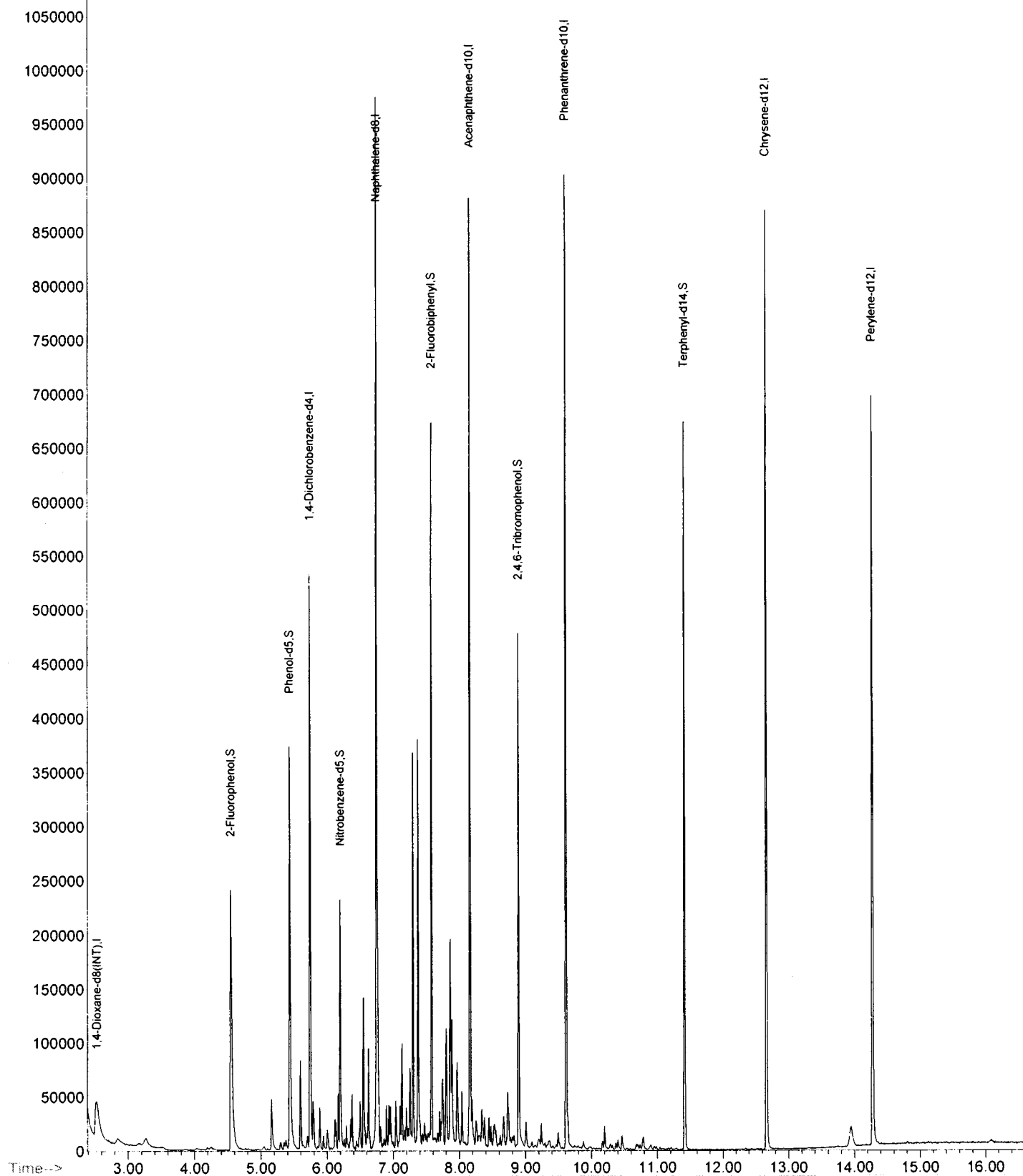
TIC: 5M105897.D\data.ms

Quant QT Reviewed

SampleID : AD06939-001(T)  
Data File: 5M105897.D  
Acq On : 10/22/18 08:35

Operator : AH/JB  
Sam Mult : 1 Vial# : 3  
Misc : A,BNA

Qt Meth : 5M 1008.M  
Qt On : 10/22/18 11:51  
Qt Upd On: 10/19/18 12:32



SampleID : AD06939-001(T) (MS) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105898.D Sam Mult : 1 Vial# : 4 Qt On : 10/22/18 11:51  
 Acq On : 10/22/18 08:58 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.526  | 96   | 47018      | 40.00    | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 85859      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 314281     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 177913     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 304363     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 300611     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.274 | 264  | 238989     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.546  | 112  | 183050     | 74.99    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 74.99%   |       |          |
| 16) Phenol-d5                  | 5.432  | 99   | 275354     | 73.15    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 73.15%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 39952      | 43.08    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 86.16%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 213479     | 37.51    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 75.02%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 55624      | 93.77    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 93.77%   |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 252148     | 52.44    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 104.88%  |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.558  | 88   | 93917      | 77.8570  | ng    | 94       |
| 9) Pyridine                    | 3.103  | 79   | 23744      | 7.9830   | ng    | 67       |
| 10) N-Nitrosodimethylamine     | 2.959  | 74   | 147088     | 86.8562  | ng    | 77       |
| 12) Benzaldehyde               | 5.374  | 77   | 201076     | 141.2897 | ng    | 74       |
| 13) Aniline                    | 5.464  | 93   | 142081m    | 35.8284  | ng    |          |
| 14) Pentachloroethane          | 5.497  | 117  | 81595      | 86.9434  | ng    | 78       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 258198     | 87.5754  | ng    | 81       |
| 17) Phenol                     | 5.502  | 94   | 21747      | 5.7627   | ng    | 51       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 252975     | 90.0549  | ng    | 81       |
| 19) N-Decane                   | 5.598  | 57   | 227106     | 70.4172  | ng    | 87       |
| 20) 1,3-Dichlorobenzene        | 5.694  | 146  | 260872m    | 82.7246  | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 268467     | 83.6878  | ng    | 95       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 252408     | 84.6299  | ng    | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 179797     | 102.3139 | ng    | 71       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 313654     | 77.4704  | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 246854     | 95.7466  | ng    | 98       |
| 27) Acetophenone               | 6.073  | 105  | 369116     | 98.2235  | ng    | 84       |
| 28) Hexachloroethane           | 6.148  | 117  | 97621      | 81.9007  | ng    | 85       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 168942     | 84.8854  | ng    | 75       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 242069     | 89.4757  | ng    | 86       |
| 33) Nitrobenzene               | 6.212  | 77   | 274859     | 94.8250  | ng    | 80       |
| 34) Isophorone                 | 6.394  | 82   | 501604     | 99.9692  | ng    | 90       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 143316     | 96.9832  | ng    | 87       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 242796     | 83.9172  | ng    | 93       |
| 37) Benzoic Acid               | 6.576  | 105  | 75625m     | 44.0751  | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 311978     | 95.5440  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 223648     | 96.8783  | ng    | 87       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 228761     | 93.5408  | ng    | 98       |
| 41) Naphthalene                | 6.763  | 128  | 774950     | 92.2102  | ng    | 98       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 292236     | 105.1189 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 121964     | 93.1214  | ng    | 97       |
| 44) Caprolactam                | 7.088  | 113  | 93684      | 102.6359 | ng    | 70       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 233448     | 99.4337  | ng    | 82       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 558850     | 103.4607 | ng    | 100      |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 585965     | 110.2842 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.372  | 142  | 1140257m   | 214.1632 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 576848     | 91.0241  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 264016     | 107.0762 | ng    | 99       |
| 52) Hexachlorocyclopentadiene  | 7.414  | 237  | 97118      | 96.9201  | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 155850     | 103.4450 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 164187     | 102.3321 | ng    | 100      |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 493999     | 103.2298 | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 360211     | 89.7472  | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 360211     | 89.7472  | ng    | 90       |
| 59) Diphenyl Ether             | 7.746  | 170  | 393121     | 110.7226 | ng    | 82       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 192112     | 97.5482  | ng    | 49       |
| 61) Coumarin                   | 7.954  | 146  | 191149     | 103.8067 | ng    | 75       |
| 62) Acenaphthylene             | 8.039  | 152  | 802869     | 111.5918 | ng    | 99       |
| 63) Dimethylphthalate          | 7.906  | 163  | 567760     | 105.9150 | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 125694     | 100.5232 | ng    | 65       |
| 65) Acenaphthene               | 8.189  | 153  | 507121     | 102.3924 | ng    | 97       |

## Quantitation Report (QT Reviewed)

SampleID : AD06939-001(T) (MS) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105898.D Sam Mult : 1 Vial# : 4 Qt On : 10/22/18 11:51  
 Acq On : 10/22/18 08:58 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.120  | 138  | 155724   | 118.0802 | ng    | 77       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 61793    | 101.0338 | ng    | 40       |
| 68) Dibenzofuran               | 8.344  | 168  | 727931   | 101.5379 | ng    | 86       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 172790   | 101.0231 | ng    | 68       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 88955    | 84.6151  | ng    | 92       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 134642   | 98.1290  | ng    | 85       |
| 72) Fluorene                   | 8.664  | 166  | 574770   | 105.1240 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 262097   | 105.7060 | ng    | 85       |
| 74) Diethylphthalate           | 8.536  | 149  | 558572   | 105.2871 | ng    | 97       |
| 75) 4-Nitroaniline             | 8.686  | 138  | 165534   | 103.0135 | ng    | 80       |
| 76) Atrazine                   | 9.295  | 200  | 171957   | 105.6294 | ng    | 98       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 99013    | 113.4870 | ng    | 60       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 391045   | 82.2599  | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 616239   | 90.8987  | ng    | 86       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 155821   | 108.8576 | ng    | 86       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 145968   | 106.1678 | ng    | 68       |
| 84) N-Octadecane               | 9.460  | 57   | 332185   | 81.4795  | ng    | 83       |
| 85) Pentachlorophenol          | 9.407  | 266  | 77176    | 105.4185 | ng    | 95       |
| 86) Phenanthrene               | 9.642  | 178  | 837841   | 101.4946 | ng    | 99       |
| 87) Anthracene                 | 9.695  | 178  | 865700   | 104.5216 | ng    | 99       |
| 88) Carbazole                  | 9.866  | 167  | 791692   | 103.0421 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 965975   | 98.1155  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 902580   | 101.0344 | ng    | 94       |
| 92) Pyrene                     | 11.234 | 202  | 950615   | 110.9075 | ng    | 87       |
| 93) Benzidine                  | 11.138 | 184  | 4403     | 1.4531   | ng    | 96       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 408735   | 101.2463 | ng    | 76       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252  | 229492   | 97.2949  | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 877916   | 108.0028 | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 758470   | 97.4313  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 587647   | 99.5630  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 947679   | 102.6505 | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 781858m  | 116.2156 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 774904   | 114.4713 | ng    | 94       |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 706944   | 101.0460 | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 784406   | 102.6149 | ng    | 95       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 690832   | 104.7473 | ng    | 91       |
| 110) Benzo[g,h,i]perylene      | 15.925 | 276  | 682824   | 105.0016 | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD06939-001(T) (MSD) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105899.D Sam Mult : 1 Vial# : 5 Qt On : 10/22/18 11:51  
 Acq On : 10/22/18 09:21 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.526  | 96   | 54029      | 40.00    | ng    | 0.02     |
| 21) 1,4-Dichlorobenzene-d4     | 5.742  | 152  | 95427      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.752  | 136  | 350426     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 201098     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.616  | 188  | 335525     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 340534     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.274 | 264  | 281051     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.546  | 112  | 195565     | 69.72    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 69.72%   |       |          |
| 16) Phenol-d5                  | 5.433  | 99   | 286318     | 66.19    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 66.19%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 43839      | 42.39    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 84.78%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 220603     | 34.30    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 68.60%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.900  | 330  | 60674      | 92.89    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 92.89%   |       |          |
| 94) Terphenyl-d14              | 11.411 | 244  | 269032     | 49.39    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 98.78%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.564  | 88   | 105778     | 76.3499  | ng    | 95       |
| 9) Pyridine                    | 3.077  | 79   | 39483      | 11.5520  | ng    | 81       |
| 10) N-Nitrosodimethylamine     | 2.959  | 74   | 164267     | 84.4133  | ng    | 76       |
| 12) Benzaldehyde               | 5.368  | 77   | 240504     | 147.0652 | ng    | 78       |
| 13) Aniline                    | 5.465  | 93   | 160173m    | 35.1592  | ng    |          |
| 14) Pentachloroethane          | 5.502  | 117  | 99014      | 91.8136  | ng    | 79       |
| 15) bis(2-Chloroethyl)ether    | 5.523  | 93   | 289765     | 85.5288  | ng    | 81       |
| 17) Phenol                     | 5.443  | 94   | 352729m    | 76.9429  | ng    |          |
| 18) 2-Chlorophenol             | 5.561  | 128  | 291331     | 90.2514  | ng    | 81       |
| 19) N-Decane                   | 5.598  | 57   | 283751     | 76.5640  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 289231m    | 79.8158  | ng    |          |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 301379     | 84.5277  | ng    | 96       |
| 23) 1,2-Dichlorobenzene        | 5.881  | 146  | 288803     | 87.1238  | ng    | 98       |
| 24) Benzyl alcohol             | 5.860  | 108  | 208200     | 106.5976 | ng    | 72       |
| 25) bis(2-chloroisopropyl)...  | 5.967  | 45   | 356627     | 79.2527  | ng    | 99       |
| 26) 2-Methylphenol             | 5.951  | 108  | 289192     | 100.9216 | ng    | 94       |
| 27) Acetophenone               | 6.074  | 105  | 438337     | 104.9483 | ng    | 83       |
| 28) Hexachloroethane           | 6.148  | 117  | 111768     | 84.3678  | ng    | 83       |
| 29) N-Nitroso-di-n-propyla...  | 6.074  | 70   | 188395     | 85.1915  | ng    | 73       |
| 30) 3&4-Methylphenol           | 6.074  | 108  | 275353     | 91.8197  | ng    | 84       |
| 33) Nitrobenzene               | 6.213  | 77   | 311443     | 96.3637  | ng    | 79       |
| 34) Isophorone                 | 6.394  | 82   | 560329     | 100.1544 | ng    | 91       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 169890     | 102.4080 | ng    | 88       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 284459     | 88.0069  | ng    | 95       |
| 37) Benzoic Acid               | 6.581  | 105  | 110795m    | 54.5759  | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 347158     | 95.3517  | ng    | 97       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 258913     | 100.3386 | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 255433     | 93.6737  | ng    | 98       |
| 41) Naphthalene                | 6.768  | 128  | 868126     | 92.6424  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.806  | 127  | 326129     | 105.2263 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.848  | 225  | 140551     | 96.2439  | ng    | 96       |
| 44) Caprolactam                | 7.094  | 113  | 114298     | 111.1943 | ng    | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.174  | 107  | 270623     | 103.0258 | ng    | 76       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 639846     | 106.2374 | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 689659     | 116.4120 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.372  | 142  | 1320709m   | 222.4698 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.666  | 154  | 683721     | 96.7600  | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 317119     | 113.7850 | ng    | 98       |
| 52) Hexachlorocyclopentadiene  | 7.415  | 237  | 117377     | 102.1635 | ng    | 100      |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 183521     | 107.4513 | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.553  | 196  | 192201     | 105.5797 | ng    | 99       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 554582     | 102.5285 | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 426262     | 93.9595  | ng    | 90       |
| 58) Dimethylnaphthalenes (...) | 7.965  | 156  | 426262     | 93.9595  | ng    | 90       |
| 59) Diphenyl Ether             | 7.746  | 170  | 472918     | 117.8408 | ng    | 82       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 221179     | 99.2824  | ng    | 53       |
| 61) Coumarin                   | 7.954  | 146  | 224329     | 107.7802 | ng    | 71       |
| 62) Acenaphthylene             | 8.040  | 152  | 894799     | 110.0305 | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 632236     | 104.3451 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 137432     | 97.3107  | ng    | 71       |
| 65) Acenaphthene               | 8.189  | 153  | 558089     | 99.6918  | ng    | 100      |

## Quantitation Report (QT Reviewed)

SampleID : AD06939-001(T) (MSD) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105899.D Sam Mult : 1 Vial# : 5 Qt On : 10/22/18 11:51  
 Acq On : 10/22/18 09:21 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-22-18\  
 Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.125  | 138  | 173667   | 116.3944 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 76067    | 107.6931 | ng    | 42       |
| 68) Dibenzofuran               | 8.344  | 168  | 826494   | 101.9938 | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 194045   | 100.4151 | ng    | 69       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 101596   | 85.3666  | ng    | 90       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 154812   | 99.7242  | ng    | 85       |
| 72) Fluorene                   | 8.665  | 166  | 633940   | 102.5783 | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 289678   | 103.3601 | ng    | 85       |
| 74) Diethylphthalate           | 8.536  | 149  | 604878   | 100.8704 | ng    | 98       |
| 75) 4-Nitroaniline             | 8.691  | 138  | 188663   | 103.8011 | ng    | 75       |
| 76) Atrazine                   | 9.300  | 200  | 199708   | 108.1861 | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 119129   | 121.2625 | ng    | 59       |
| 79) n-Nitrosodiphenylamine     | 8.771  | 169  | 440463   | 84.0500  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 742586   | 99.3625  | ng    | 88       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 171035   | 108.3889 | ng    | 87       |
| 83) Hexachlorobenzene          | 9.210  | 284  | 160733   | 106.0492 | ng    | 69       |
| 84) N-Octadecane               | 9.461  | 57   | 392359   | 87.2404  | ng    | 85       |
| 85) Pentachlorophenol          | 9.407  | 266  | 90647    | 110.5880 | ng    | 95       |
| 86) Phenanthrene               | 9.642  | 178  | 950346   | 104.4312 | ng    | 99       |
| 87) Anthracene                 | 9.696  | 178  | 952252   | 104.2935 | ng    | 100      |
| 88) Carbazole                  | 9.867  | 167  | 933860   | 110.2573 | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 1079089  | 99.3534  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 1014598  | 102.8683 | ng    | 94       |
| 92) Pyrene                     | 11.234 | 202  | 1046712  | 107.8023 | ng    | 88       |
| 93) Benzidine                  | 11.133 | 184  | 8203     | 2.3890   | ng    | 87       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 461052   | 100.8720 | ng    | 77       |
| 99) 3,3'-Dichlorobenzidine     | 12.623 | 252  | 259185   | 96.9888  | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 941746   | 102.2728 | ng    | 100      |
| 101) Chrysene                  | 12.698 | 228  | 827471   | 93.8333  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 658579   | 98.5320  | ng    | 97       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 1073042  | 99.4593  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 886121m  | 112.0012 | ng    |          |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 866023   | 108.7855 | ng    | 96       |
| 107) Benzo[a]pyrene            | 14.221 | 252  | 802019   | 97.9594  | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 890147   | 99.5223  | ng    | 98       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 778484   | 100.8959 | ng    | 91       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 761689   | 100.3366 | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: SMB71480**

8101509 0629

| Data File                            |     | Sample ID:      |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71460.D             |     | AD07136-003(MS) |             | 10/19/2018 6:52:00 PM |          |             |             |
| Non Spike(If applicable): 10M71459.D |     | AD07136-003     |             | 10/19/2018 6:30:00 PM |          |             |             |
| Inst Blank(If applicable):           |     |                 |             |                       |          |             |             |
| Method: 8270D                        |     | Matrix: Soil    |             | QC Type: MS           |          |             |             |
| Analyte:                             | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                             | 1   | 23.1032         | 0           | 50                    | 46       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 34.3013         | 0           | 50                    | 69       | 50          | 130         |
| Benzaldehyde                         | 1   | 73.1107         | 0           | 50                    | 146      | 20          | 220         |
| Aniline                              | 1   | 26.0648         | 0           | 50                    | 52       | 20          | 150         |
| Pentachloroethane                    | 1   | 40.8681         | 0           | 50                    | 82       | 50          | 130         |
| bis(2-Chloroethyl)ether              | 1   | 37.9532         | 0           | 50                    | 76       | 50          | 130         |
| Phenol                               | 1   | 87.559          | 0           | 100                   | 88       | 20          | 150         |
| 2-Chlorophenol                       | 1   | 85.5731         | 0           | 100                   | 86       | 50          | 130         |
| N-Decane                             | 1   | 34.1942         | 0           | 50                    | 68       | 20          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 36.6728         | 0           | 50                    | 73       | 60          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 37.5176         | 0           | 50                    | 75       | 60          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 35.5485         | 0           | 50                    | 71       | 50          | 130         |
| Benzyl alcohol                       | 1   | 42.2052         | 0           | 50                    | 84       | 20          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 34.7892         | 0           | 50                    | 70       | 40          | 130         |
| 2-Methylphenol                       | 1   | 85.7146         | 0           | 100                   | 86       | 50          | 130         |
| Acetophenone                         | 1   | 46.8707         | 0           | 50                    | 94       | 50          | 130         |
| Hexachloroethane                     | 1   | 38.2785         | 0           | 50                    | 77       | 50          | 130         |
| N-Nitroso-di-n-propylamine           | 1   | 40.6172         | 0           | 50                    | 81       | 40          | 130         |
| 3&4-Methylphenol                     | 1   | 94.9835         | 0           | 100                   | 95       | 70          | 130         |
| Nitrobenzene                         | 1   | 40.5831         | 0           | 50                    | 81       | 70          | 130         |
| Isophorone                           | 1   | 41.2265         | 0           | 50                    | 82       | 60          | 130         |
| 2-Nitrophenol                        | 1   | 87.613          | 0           | 100                   | 88       | 70          | 130         |
| 2,4-Dimethylphenol                   | 1   | 87.1908         | 0           | 100                   | 87       | 50          | 130         |
| Benzoic Acid                         | 1   | 45.4584         | 0           | 100                   | 45       | 20          | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 41.8846         | 0           | 50                    | 84       | 60          | 130         |
| 2,4-Dichlorophenol                   | 1   | 89.4897         | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene               | 1   | 39.8779         | 0           | 50                    | 80       | 50          | 130         |
| Naphthalene                          | 1   | 39.6058         | 0           | 50                    | 79       | 50          | 130         |
| 4-Chloroaniline                      | 1   | 32.6478         | 0           | 50                    | 65       | 10          | 150         |
| Hexachlorobutadiene                  | 1   | 39.2935         | 0           | 50                    | 79       | 60          | 130         |
| Caprolactam                          | 1   | 51.0936         | 0           | 50                    | 102      | 50          | 130         |
| 4-Chloro-3-methylphenol              | 1   | 95.2708         | 0           | 100                   | 95       | 50          | 130         |
| 2-Methylnaphthalene                  | 1   | 42.0726         | 0           | 50                    | 84       | 70          | 130         |
| 1-Methylnaphthalene                  | 1   | 45.9973         | 0           | 50                    | 92       | 70          | 130         |
| 1,1'-Biphenyl                        | 1   | 40.923          | 0           | 50                    | 82       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 49.2296         | 0           | 50                    | 98       | 70          | 130         |
| Hexachlorocyclopentadiene            | 1   | 24.3635         | 0           | 50                    | 49       | 20          | 160         |
| 2,4,6-Trichlorophenol                | 1   | 98.4871         | 0           | 100                   | 98       | 70          | 130         |
| 2,4,5-Trichlorophenol                | 1   | 96.2235         | 0           | 100                   | 96       | 70          | 130         |
| 2-Chloronaphthalene                  | 1   | 44.4398         | 0           | 50                    | 89       | 70          | 130         |
| 1,4-Dimethylnaphthalene              | 1   | 43.6087         | 0           | 50                    | 87       | 70          | 130         |
| Diphenyl Ether                       | 1   | 50.945          | 0           | 50                    | 102      | 70          | 130         |
| 2-Nitroaniline                       | 1   | 45.1334         | 0           | 50                    | 90       | 50          | 130         |
| Coumarin                             | 1   | 48.3697         | 0           | 50                    | 97       | 70          | 130         |
| Acenaphthylene                       | 1   | 48.224          | 0           | 50                    | 96       | 70          | 130         |
| Dimethylphthalate                    | 1   | 43.1029         | 0           | 50                    | 86       | 70          | 130         |
| 2,6-Dinitrotoluene                   | 1   | 46.7449         | 0           | 50                    | 93       | 70          | 130         |
| Acenaphthene                         | 1   | 45.007          | 0           | 50                    | 90       | 50          | 130         |
| 3-Nitroaniline                       | 1   | 34.7015         | 0           | 50                    | 69*      | 70          | 130         |
| 2,4-Dinitrophenol                    | 1   | 76.4823         | 0           | 100                   | 76       | 20          | 150         |
| Dibenzofuran                         | 1   | 43.7587         | 0           | 50                    | 88       | 70          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 41.4652         | 0           | 50                    | 83       | 40          | 130         |
| 4-Nitrophenol                        | 1   | 88.9843         | 0           | 100                   | 89       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 93.3059         | 0           | 100                   | 93       | 70          | 130         |
| Fluorene                             | 1   | 44.6241         | 0           | 50                    | 89       | 50          | 130         |
| 4-Chlorophenyl-phenylether           | 1   | 43.3181         | 0           | 50                    | 87       | 70          | 130         |
| Diethylphthalate                     | 1   | 43.8555         | 0           | 50                    | 88       | 70          | 130         |
| 4-Nitroaniline                       | 1   | 42.5611         | 0           | 50                    | 85       | 50          | 130         |
| Atrazine                             | 1   | 50.0199         | 0           | 50                    | 100      | 50          | 130         |
| 4,6-Dinitro-2-methylphenol           | 1   | 87.0177         | 0           | 100                   | 87       | 70          | 130         |
| n-Nitrosodiphenylamine               | 1   | 35.7089         | 0           | 50                    | 71       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |          |        |     |     |    |     |
|----------------------------|---|----------|--------|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 45.7115  | 0      | 50  | 91  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 43.4579  | 0      | 50  | 87  | 70 | 130 |
| Hexachlorobenzene          | 1 | 41.4945  | 0      | 50  | 83  | 70 | 130 |
| N-Octadecane               | 1 | 40.1622  | 0      | 50  | 80  | 70 | 130 |
| Pentachlorophenol          | 1 | 101.0389 | 0      | 100 | 101 | 40 | 130 |
| Phenanthrene               | 1 | 42.7047  | 0      | 50  | 85  | 70 | 130 |
| Anthracene                 | 1 | 42.8769  | 0      | 50  | 86  | 70 | 130 |
| Carbazole                  | 1 | 44.0177  | 0      | 50  | 88  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 42.0591  | 0.5347 | 50  | 83  | 70 | 130 |
| Fluoranthene               | 1 | 44.8359  | 0      | 50  | 90  | 70 | 130 |
| Pyrene                     | 1 | 41.6923  | 0      | 50  | 83  | 50 | 130 |
| Benzidine                  | 1 | 0        | 0      | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 45.2858  | 0      | 50  | 91  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 27.5678  | 0      | 50  | 55  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 41.8312  | 0      | 50  | 84  | 70 | 130 |
| Chrysene                   | 1 | 39.6551  | 0      | 50  | 79  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 44.1528  | 0      | 50  | 88  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 44.734   | 0      | 50  | 89  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 47.294   | 0      | 50  | 95  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 44.772   | 0      | 50  | 90  | 70 | 130 |
| Benzo[a]pyrene             | 1 | 42.5841  | 0      | 50  | 85  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 43.4521  | 0      | 50  | 87  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 44.3127  | 0      | 50  | 89  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 40.8198  | 0      | 50  | 82  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: SMB71480**

**8101509 0631**

| Data File                            |     | Sample ID:       |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 10M71461.D             |     | AD07136-003(MSD) |             | 10/19/2018 7:14:00 PM |          |             |             |
| Non Spike(If applicable): 10M71459.D |     | AD07136-003      |             | 10/19/2018 6:30:00 PM |          |             |             |
| Inst Blank(If applicable):           |     |                  |             |                       |          |             |             |
| Method: 8270D                        |     | Matrix: Soil     |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Pyridine                             | 1   | 19.474           | 0           | 50                    | 39       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 39.5078          | 0           | 50                    | 79       | 50          | 130         |
| Benzaldehyde                         | 1   | 71.3589          | 0           | 50                    | 143      | 20          | 220         |
| Aniline                              | 1   | 26.6193          | 0           | 50                    | 53       | 20          | 150         |
| Pentachloroethane                    | 1   | 41.5957          | 0           | 50                    | 83       | 50          | 130         |
| bis(2-Chloroethyl)ether              | 1   | 39.8034          | 0           | 50                    | 80       | 50          | 130         |
| Phenol                               | 1   | 92.2058          | 0           | 100                   | 92       | 20          | 150         |
| 2-Chlorophenol                       | 1   | 89.6034          | 0           | 100                   | 90       | 50          | 130         |
| N-Decane                             | 1   | 32.3133          | 0           | 50                    | 65       | 20          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 37.5716          | 0           | 50                    | 75       | 60          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 36.3549          | 0           | 50                    | 73       | 60          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 35.4587          | 0           | 50                    | 71       | 50          | 130         |
| Benzyl alcohol                       | 1   | 43.0866          | 0           | 50                    | 86       | 20          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 34.9248          | 0           | 50                    | 70       | 40          | 130         |
| 2-Methylphenol                       | 1   | 87.2462          | 0           | 100                   | 87       | 50          | 130         |
| Acetophenone                         | 1   | 47.6852          | 0           | 50                    | 95       | 50          | 130         |
| Hexachloroethane                     | 1   | 36.6893          | 0           | 50                    | 73       | 50          | 130         |
| N-Nitroso-di-n-propylamine           | 1   | 42.3294          | 0           | 50                    | 85       | 40          | 130         |
| 3&4-Methylphenol                     | 1   | 97.1521          | 0           | 100                   | 97       | 70          | 130         |
| Nitrobenzene                         | 1   | 41.0967          | 0           | 50                    | 82       | 70          | 130         |
| Isophorone                           | 1   | 40.762           | 0           | 50                    | 82       | 60          | 130         |
| 2-Nitrophenol                        | 1   | 85.1588          | 0           | 100                   | 85       | 70          | 130         |
| 2,4-Dimethylphenol                   | 1   | 85.8001          | 0           | 100                   | 86       | 50          | 130         |
| Benzoic Acid                         | 1   | 44.2023          | 0           | 100                   | 44       | 20          | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 41.2245          | 0           | 50                    | 82       | 60          | 130         |
| 2,4-Dichlorophenol                   | 1   | 88.6255          | 0           | 100                   | 89       | 70          | 130         |
| 1,2,4-Trichlorobenzene               | 1   | 39.0631          | 0           | 50                    | 78       | 50          | 130         |
| Naphthalene                          | 1   | 40.4026          | 0           | 50                    | 81       | 50          | 130         |
| 4-Chloroaniline                      | 1   | 32.5696          | 0           | 50                    | 65       | 10          | 150         |
| Hexachlorobutadiene                  | 1   | 38.4966          | 0           | 50                    | 77       | 60          | 130         |
| Caprolactam                          | 1   | 52.1146          | 0           | 50                    | 104      | 50          | 130         |
| 4-Chloro-3-methylphenol              | 1   | 94.4724          | 0           | 100                   | 94       | 50          | 130         |
| 2-Methylnaphthalene                  | 1   | 41.6256          | 0           | 50                    | 83       | 70          | 130         |
| 1-Methylnaphthalene                  | 1   | 47.0952          | 0           | 50                    | 94       | 70          | 130         |
| 1,1'-Biphenyl                        | 1   | 38.0481          | 0           | 50                    | 76       | 60          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 43.5229          | 0           | 50                    | 87       | 70          | 130         |
| Hexachlorocyclopentadiene            | 1   | 20.688           | 0           | 50                    | 41       | 20          | 160         |
| 2,4,6-Trichlorophenol                | 1   | 93.8013          | 0           | 100                   | 94       | 70          | 130         |
| 2,4,5-Trichlorophenol                | 1   | 93.3347          | 0           | 100                   | 93       | 70          | 130         |
| 2-Chloronaphthalene                  | 1   | 42.3291          | 0           | 50                    | 85       | 70          | 130         |
| 1,4-Dimethylnaphthalene              | 1   | 39.9849          | 0           | 50                    | 80       | 70          | 130         |
| Diphenyl Ether                       | 1   | 45.9768          | 0           | 50                    | 92       | 70          | 130         |
| 2-Nitroaniline                       | 1   | 44.5067          | 0           | 50                    | 89       | 50          | 130         |
| Coumarin                             | 1   | 46.0893          | 0           | 50                    | 92       | 70          | 130         |
| Acenaphthylene                       | 1   | 44.3178          | 0           | 50                    | 89       | 70          | 130         |
| Dimethylphthalate                    | 1   | 43.279           | 0           | 50                    | 87       | 70          | 130         |
| 2,6-Dinitrotoluene                   | 1   | 46.0087          | 0           | 50                    | 92       | 70          | 130         |
| Acenaphthene                         | 1   | 42.7284          | 0           | 50                    | 85       | 50          | 130         |
| 3-Nitroaniline                       | 1   | 33.4218          | 0           | 50                    | 67 *     | 70          | 130         |
| 2,4-Dinitrophenol                    | 1   | 78.3257          | 0           | 100                   | 78       | 20          | 150         |
| Dibenzofuran                         | 1   | 42.5902          | 0           | 50                    | 85       | 70          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 40.3454          | 0           | 50                    | 81       | 40          | 130         |
| 4-Nitrophenol                        | 1   | 90.2347          | 0           | 100                   | 90       | 20          | 150         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 84.4188          | 0           | 100                   | 84       | 70          | 130         |
| Fluorene                             | 1   | 42.6159          | 0           | 50                    | 85       | 50          | 130         |
| 4-Chlorophenyl-phenylether           | 1   | 42.3303          | 0           | 50                    | 85       | 70          | 130         |
| Diethylphthalate                     | 1   | 43.3161          | 0           | 50                    | 87       | 70          | 130         |
| 4-Nitroaniline                       | 1   | 39.9267          | 0           | 50                    | 80       | 50          | 130         |
| Atrazine                             | 1   | 48.9531          | 0           | 50                    | 98       | 50          | 130         |
| 4,6-Dinitro-2-methylphenol           | 1   | 93.7333          | 0           | 100                   | 94       | 70          | 130         |
| n-Nitrosodiphenylamine               | 1   | 37.4593          | 0           | 50                    | 75       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: SMB71480

|                            |   |          |        |     |     |    |     |
|----------------------------|---|----------|--------|-----|-----|----|-----|
| 1,2-Diphenylhydrazine      | 1 | 46.1069  | 0      | 50  | 92  | 70 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 45.0178  | 0      | 50  | 90  | 70 | 130 |
| Hexachlorobenzene          | 1 | 43.1155  | 0      | 50  | 86  | 70 | 130 |
| N-Octadecane               | 1 | 40.0609  | 0      | 50  | 80  | 70 | 130 |
| Pentachlorophenol          | 1 | 105.1929 | 0      | 100 | 105 | 40 | 130 |
| Phenanthrene               | 1 | 43.76    | 0      | 50  | 88  | 70 | 130 |
| Anthracene                 | 1 | 44.9908  | 0      | 50  | 90  | 70 | 130 |
| Carbazole                  | 1 | 44.0964  | 0      | 50  | 88  | 70 | 130 |
| Di-n-butylphthalate        | 1 | 43.5521  | 0.5347 | 50  | 86  | 70 | 130 |
| Fluoranthene               | 1 | 46.7431  | 0      | 50  | 93  | 70 | 130 |
| Pyrene                     | 1 | 44.5291  | 0      | 50  | 89  | 50 | 130 |
| Benzidine                  | 1 | 0        | 0      | 50  | 0*  | 1  | 130 |
| Butylbenzylphthalate       | 1 | 46.0475  | 0      | 50  | 92  | 50 | 130 |
| 3,3'-Dichlorobenzidine     | 1 | 28.1281  | 0      | 50  | 56  | 10 | 130 |
| Benzo[a]anthracene         | 1 | 44.8842  | 0      | 50  | 90  | 70 | 130 |
| Chrysene                   | 1 | 41.3473  | 0      | 50  | 83  | 60 | 130 |
| bis(2-Ethylhexyl)phthalate | 1 | 47.4486  | 0      | 50  | 95  | 70 | 130 |
| Di-n-octylphthalate        | 1 | 45.8937  | 0      | 50  | 92  | 70 | 130 |
| Benzo[b]fluoranthene       | 1 | 48.8028  | 0      | 50  | 98  | 70 | 130 |
| Benzo[k]fluoranthene       | 1 | 47.0116  | 0      | 50  | 94  | 70 | 130 |
| Benzo[a]pyrene             | 1 | 43.5192  | 0      | 50  | 87  | 70 | 130 |
| Indeno[1,2,3-cd]pyrene     | 1 | 45.4832  | 0      | 50  | 91  | 70 | 130 |
| Dibenzo[a,h]anthracene     | 1 | 47.4901  | 0      | 50  | 95  | 60 | 130 |
| Benzo[g,h,i]perylene       | 1 | 44.0135  | 0      | 50  | 88  | 70 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: SMB71480**

**8101509 0633**

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 10M71461.D             | AD07136-003(MSD) | 10/19/2018 7:14:00 PM |
| Duplicate(If applicable): 10M71460.D | AD07136-003(MS)  | 10/19/2018 6:52:00 PM |
| Inst Blank(If applicable):           |                  |                       |
| Method: 8270D                        | Matrix: Soil     | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD  | Limit |
|-----------------------------|--------|----------------------|-----------------------|------|-------|
| Pyridine                    | 1      | 19.474               | 23.1032               | 17   | 30    |
| N-Nitrosodimethylamine      | 1      | 39.5078              | 34.3013               | 14   | 30    |
| Benzaldehyde                | 1      | 71.3589              | 73.1107               | 2.4  | 30    |
| Aniline                     | 1      | 26.6193              | 26.0648               | 2.1  | 30    |
| Pentachloroethane           | 1      | 41.5957              | 40.8681               | 1.8  | 30    |
| bis(2-Chloroethyl)ether     | 1      | 39.8034              | 37.9532               | 4.8  | 30    |
| Phenol                      | 1      | 92.2058              | 87.559                | 5.2  | 40    |
| 2-Chlorophenol              | 1      | 89.6034              | 85.5731               | 4.6  | 40    |
| N-Decane                    | 1      | 32.3133              | 34.1942               | 5.7  | 30    |
| 1,3-Dichlorobenzene         | 1      | 37.5716              | 36.6728               | 2.4  | 30    |
| 1,4-Dichlorobenzene         | 1      | 36.3549              | 37.5176               | 3.1  | 40    |
| 1,2-Dichlorobenzene         | 1      | 35.4587              | 35.5485               | 0.25 | 30    |
| Benzyl alcohol              | 1      | 43.0866              | 42.2052               | 2.1  | 30    |
| bis(2-chloroisopropyl)ether | 1      | 34.9248              | 34.7892               | 0.39 | 30    |
| 2-Methylphenol              | 1      | 87.2462              | 85.7146               | 1.8  | 40    |
| Acetophenone                | 1      | 47.6852              | 46.8707               | 1.7  | 30    |
| Hexachloroethane            | 1      | 36.6893              | 38.2785               | 4.2  | 30    |
| N-Nitroso-di-n-propylamine  | 1      | 42.3294              | 40.6172               | 4.1  | 40    |
| 3&4-Methylphenol            | 1      | 97.1521              | 94.9835               | 2.3  | 30    |
| Nitrobenzene                | 1      | 41.0967              | 40.5831               | 1.3  | 30    |
| Isophorone                  | 1      | 40.762               | 41.2265               | 1.1  | 30    |
| 2-Nitrophenol               | 1      | 85.1588              | 87.613                | 2.8  | 30    |
| 2,4-Dimethylphenol          | 1      | 85.8001              | 87.1908               | 1.6  | 40    |
| Benzoic Acid                | 1      | 44.2023              | 45.4584               | 2.8  | 30    |
| bis(2-Chloroethoxy)methane  | 1      | 41.2245              | 41.8846               | 1.6  | 30    |
| 2,4-Dichlorophenol          | 1      | 88.6255              | 89.4897               | 0.97 | 30    |
| 1,2,4-Trichlorobenzene      | 1      | 39.0631              | 39.8779               | 2.1  | 40    |
| Naphthalene                 | 1      | 40.4026              | 39.6058               | 2    | 40    |
| 4-Chloroaniline             | 1      | 32.5696              | 32.6478               | 0.24 | 30    |
| Hexachlorobutadiene         | 1      | 38.4966              | 39.2935               | 2    | 30    |
| Caprolactam                 | 1      | 52.1146              | 51.0936               | 2    | 30    |
| 4-Chloro-3-methylphenol     | 1      | 94.4724              | 95.2708               | 0.84 | 40    |
| 2-Methylnaphthalene         | 1      | 41.6256              | 42.0726               | 1.1  | 30    |
| 1-Methylnaphthalene         | 1      | 47.0952              | 45.9973               | 2.4  | 30    |
| 1,1'-Biphenyl               | 1      | 38.0481              | 40.923                | 7.3  | 30    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 43.5229              | 49.2296               | 12   | 30    |
| Hexachlorocyclopentadiene   | 1      | 20.688               | 24.3635               | 16   | 30    |
| 2,4,6-Trichlorophenol       | 1      | 93.8013              | 98.4871               | 4.9  | 30    |
| 2,4,5-Trichlorophenol       | 1      | 93.3347              | 96.2235               | 3    | 30    |
| 2-Chloronaphthalene         | 1      | 42.3291              | 44.4398               | 4.9  | 30    |
| 1,4-Dimethylnaphthalene     | 1      | 39.9849              | 43.6087               | 8.7  | 30    |
| Diphenyl Ether              | 1      | 45.9768              | 50.945                | 10   | 30    |
| 2-Nitroaniline              | 1      | 44.5067              | 45.1334               | 1.4  | 30    |
| Coumarin                    | 1      | 46.0893              | 48.3697               | 4.8  | 30    |
| Acenaphthylene              | 1      | 44.3178              | 48.224                | 8.4  | 30    |
| Dimethylphthalate           | 1      | 43.279               | 43.1029               | 0.41 | 30    |
| 2,6-Dinitrotoluene          | 1      | 46.0087              | 46.7449               | 1.6  | 30    |
| Acenaphthene                | 1      | 42.7284              | 45.007                | 5.2  | 40    |
| 3-Nitroaniline              | 1      | 33.4218              | 34.7015               | 3.8  | 30    |
| 2,4-Dinitrophenol           | 1      | 78.3257              | 76.4823               | 2.4  | 30    |
| Dibenzofuran                | 1      | 42.5902              | 43.7587               | 2.7  | 30    |
| 2,4-Dinitrotoluene          | 1      | 40.3454              | 41.4652               | 2.7  | 40    |
| 4-Nitrophenol               | 1      | 90.2347              | 88.9843               | 1.4  | 40    |
| 2,3,4,6-Tetrachlorophenol   | 1      | 84.4188              | 93.3059               | 10   | 30    |
| Fluorene                    | 1      | 42.6159              | 44.6241               | 4.6  | 40    |
| 4-Chlorophenyl-phenylether  | 1      | 42.3303              | 43.3181               | 2.3  | 30    |
| Diethylphthalate            | 1      | 43.3161              | 43.8555               | 1.2  | 30    |
| 4-Nitroaniline              | 1      | 39.9267              | 42.5611               | 6.4  | 30    |
| Atrazine                    | 1      | 48.9531              | 50.0199               | 2.2  | 30    |
| 4,6-Dinitro-2-methylphenol  | 1      | 93.7333              | 87.0177               | 7.4  | 30    |
| n-Nitrosodiphenylamine      | 1      | 37.4593              | 35.7089               | 4.8  | 30    |
| 1,2-Diphenylhydrazine       | 1      | 46.1069              | 45.7115               | 0.86 | 30    |
| 4-Bromophenyl-phenylether   | 1      | 45.0178              | 43.4579               | 3.5  | 30    |

**Form3**  
**RPD Data Laboratory Limits**

QC Batch: SMB71480

|                            |   |          |          |      |    |
|----------------------------|---|----------|----------|------|----|
| Hexachlorobenzene          | 1 | 43.1155  | 41.4945  | 3.8  | 30 |
| N-Octadecane               | 1 | 40.0609  | 40.1622  | 0.25 | 30 |
| Pentachlorophenol          | 1 | 105.1929 | 101.0389 | 4    | 40 |
| Phenanthrene               | 1 | 43.76    | 42.7047  | 2.4  | 30 |
| Anthracene                 | 1 | 44.9908  | 42.8769  | 4.8  | 30 |
| Carbazole                  | 1 | 44.0964  | 44.0177  | 0.18 | 30 |
| Di-n-butylphthalate        | 1 | 43.5521  | 42.0591  | 3.5  | 30 |
| Fluoranthene               | 1 | 46.7431  | 44.8359  | 4.2  | 30 |
| Pyrene                     | 1 | 44.5291  | 41.6923  | 6.6  | 40 |
| Benzidine                  | 1 | 0        | 0        | NA   | 30 |
| Butylbenzylphthalate       | 1 | 46.0475  | 45.2858  | 1.7  | 40 |
| 3,3'-Dichlorobenzidine     | 1 | 28.1281  | 27.5678  | 2    | 30 |
| Benzo[a]anthracene         | 1 | 44.8842  | 41.8312  | 7    | 30 |
| Chrysene                   | 1 | 41.3473  | 39.6551  | 4.2  | 30 |
| bis(2-Ethylhexyl)phthalate | 1 | 47.4486  | 44.1528  | 7.2  | 30 |
| Di-n-octylphthalate        | 1 | 45.8937  | 44.734   | 2.6  | 30 |
| Benzo[b]fluoranthene       | 1 | 48.8028  | 47.294   | 3.1  | 30 |
| Benzo[k]fluoranthene       | 1 | 47.0116  | 44.772   | 4.9  | 30 |
| Benzo[a]pyrene             | 1 | 43.5192  | 42.5841  | 2.2  | 30 |
| Indeno[1,2,3-cd]pyrene     | 1 | 45.4832  | 43.4521  | 4.6  | 30 |
| Dibenzo[a,h]anthracene     | 1 | 47.4901  | 44.3127  | 6.9  | 30 |
| Benzo[g,h,i]perylene       | 1 | 44.0135  | 40.8198  | 7.5  | 30 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07136-003  
Data File: 10M71459.D  
Acq On : 10/19/18 18:30

Operator : AH/JB  
Sam Mult : 1 Vial# : 22  
Misc : S,BNA

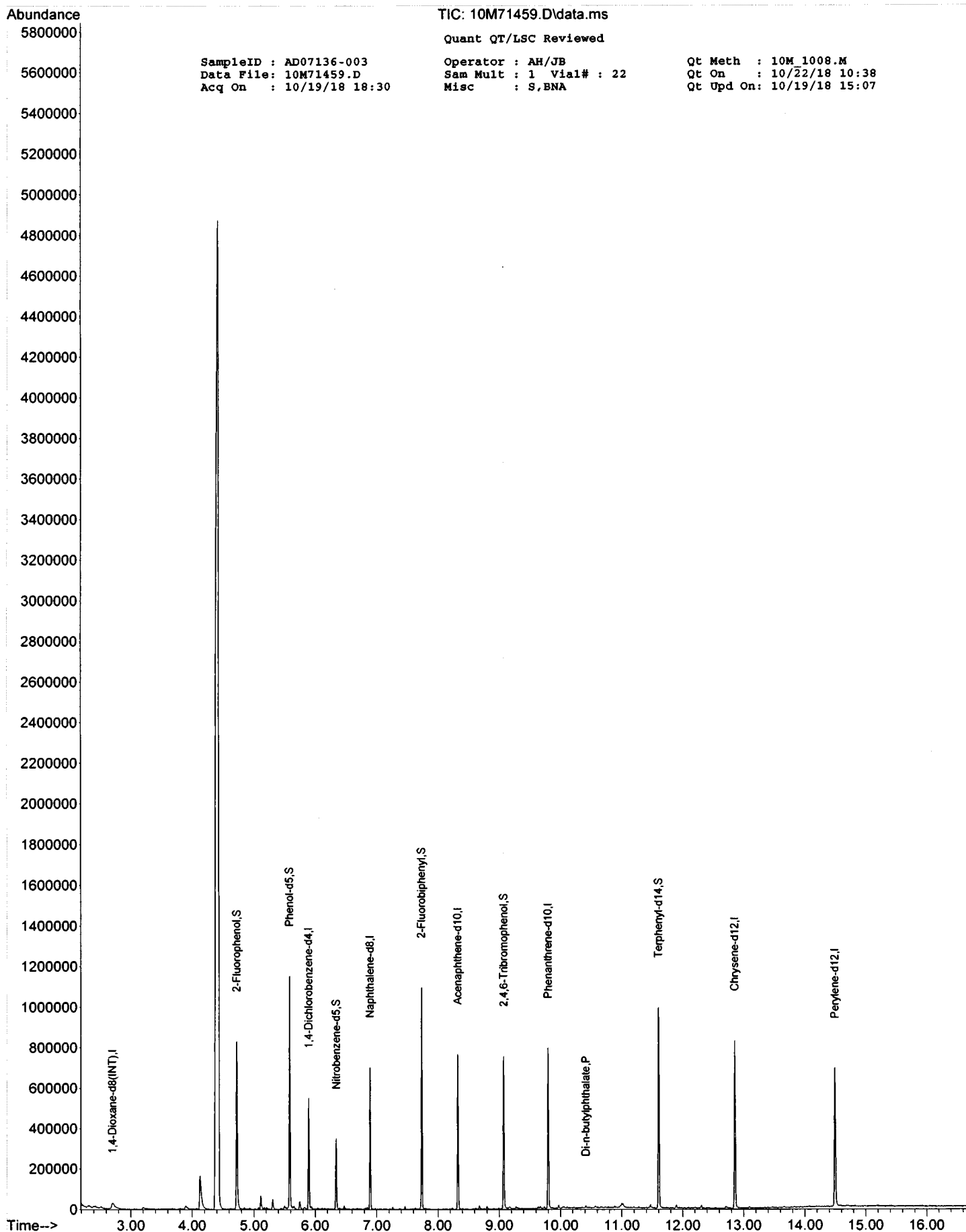
Qt Meth : 10M\_1008.M  
Qt On : 10/22/18 10:38  
Qt Upd On: 10/19/18 15:07

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc   | Units   | Dev(Min)  |
|-----------------------------|--------|------|----------|--------|---------|-----------|
| -----                       |        |      |          |        |         |           |
| Internal Standards          |        |      |          |        |         |           |
| 7) 1,4-Dioxane-d8(INT)      | 2.700  | 96   | 41251    | 40.00  | ng      | -0.03     |
| 21) 1,4-Dichlorobenzene-d4  | 5.894  | 152  | 79431    | 40.00  | ng      | 0.00      |
| 31) Naphthalene-d8          | 6.894  | 136  | 285711   | 40.00  | ng      | 0.00      |
| 50) Acenaphthene-d10        | 8.327  | 164  | 178478   | 40.00  | ng      | 0.00      |
| 77) Phenanthrene-d10        | 9.798  | 188  | 304096   | 40.00  | ng      | 0.00      |
| 91) Chrysene-d12            | 12.857 | 240  | 319863   | 40.00  | ng      | 0.00      |
| 103) Perylene-d12           | 14.494 | 264  | 291423   | 40.00  | ng      | 0.00      |
| System Monitoring Compounds |        |      |          |        |         |           |
| 11) 2-Fluorophenol          | 4.722  | 112  | 252365   | 105.68 | ng      | 0.00      |
| Spiked Amount 100.000       |        |      | Recovery | =      | 105.68% |           |
| 16) Phenol-d5               | 5.583  | 99   | 347735   | 107.59 | ng      | 0.00      |
| Spiked Amount 100.000       |        |      | Recovery | =      | 107.59% |           |
| 32) Nitrobenzene-d5         | 6.343  | 128  | 47336    | 51.49  | ng      | 0.00      |
| Spiked Amount 50.000        |        |      | Recovery | =      | 102.98% |           |
| 55) 2-Fluorobiphenyl        | 7.733  | 172  | 306439   | 53.63  | ng      | 0.00      |
| Spiked Amount 50.000        |        |      | Recovery | =      | 107.26% |           |
| 80) 2,4,6-Tribromophenol    | 9.076  | 330  | 75784    | 106.50 | ng      | 0.00      |
| Spiked Amount 100.000       |        |      | Recovery | =      | 106.50% |           |
| 94) Terphenyl-d14           | 11.601 | 244  | 302104   | 51.55  | ng      | 0.00      |
| Spiked Amount 50.000        |        |      | Recovery | =      | 103.10% |           |
| Target Compounds            |        |      |          |        |         |           |
| 89) Di-n-butylphthalate     | 10.413 | 149  | 5151     | 0.5347 | ng      | Qvalue 90 |
| -----                       |        |      |          |        |         |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : AD07136-003(MS)  
Data File: 10M71460.D  
Acq On : 10/19/18 18:52

Operator : AH/JB  
Sam Mult : 1 Vial# : 23  
Misc : S,BNA

Qt Meth : 10M 1008.M  
Qt On : 10/22/18 10:39  
Qt Upd On: 10/19/18 15:07

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min)  |
|--------------------------------|--------|------|------------|---------|-------|-----------|
| Internal Standards             |        |      |            |         |       |           |
| 7) 1,4-Dioxane-d8 (INT)        | 2.716  | 96   | 42937      | 40.00   | ng    | -0.01     |
| 21) 1,4-Dichlorobenzene-d4     | 5.894  | 152  | 87372      | 40.00   | ng    | 0.00      |
| 31) Naphthalene-d8             | 6.899  | 136  | 311164     | 40.00   | ng    | 0.00      |
| 50) Acenaphthene-d10           | 8.333  | 164  | 189222     | 40.00   | ng    | 0.00      |
| 77) Phenanthrene-d10           | 9.803  | 188  | 347697     | 40.00   | ng    | 0.00      |
| 91) Chrysene-d12               | 12.863 | 240  | 342555     | 40.00   | ng    | 0.00      |
| 103) Perylene-d12              | 14.494 | 264  | 313686     | 40.00   | ng    | 0.00      |
| System Monitoring Compounds    |        |      |            |         |       |           |
| 11) 2-Fluorophenol             | 4.722  | 112  | 283444     | 114.04  | ng    | 0.00      |
| Spiked Amount 100.000          |        |      | Recovery = | 114.04% |       |           |
| 16) Phenol-d5                  | 5.589  | 99   | 392331     | 116.62  | ng    | 0.00      |
| Spiked Amount 100.000          |        |      | Recovery = | 116.62% |       |           |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 56270      | 55.74   | ng    | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery = | 111.48% |       |           |
| 55) 2-Fluorobiphenyl           | 7.734  | 172  | 348727     | 57.56   | ng    | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery = | 115.12% |       |           |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 92503      | 113.90  | ng    | 0.00      |
| Spiked Amount 100.000          |        |      | Recovery = | 113.90% |       |           |
| 94) Terphenyl-d14              | 11.601 | 244  | 348737     | 55.56   | ng    | 0.00      |
| Spiked Amount 50.000           |        |      | Recovery = | 111.12% |       |           |
| Target Compounds               |        |      |            |         |       |           |
| 8) 1,4-Dioxane                 | 2.749  | 88   | 22686      | 21.9239 | ng    | Qvalue 85 |
| 9) Pyridine                    | 3.246  | 79   | 53442      | 23.1032 | ng    | 61        |
| 10) N-Nitrosodimethylamine     | 3.176  | 74   | 49081      | 34.3013 | ng    | 94        |
| 12) Benzaldehyde               | 5.525  | 77   | 87469      | 73.1107 | ng    | 77        |
| 13) Aniline                    | 5.621  | 93   | 90421      | 26.0648 | ng    | 24        |
| 14) Pentachloroethane          | 5.658  | 117  | 38434      | 40.8681 | ng    | 76        |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 94320      | 37.9532 | ng    | 77        |
| 17) Phenol                     | 5.599  | 94   | 291731     | 87.5590 | ng    | 87        |
| 18) 2-Chlorophenol             | 5.722  | 128  | 238137     | 85.5731 | ng    | 74        |
| 19) N-Decane                   | 5.749  | 57   | 74682      | 34.1942 | ng    | 79        |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 113163     | 36.6728 | ng    | 95        |
| 22) 1,4-Dichlorobenzene        | 5.910  | 146  | 120623     | 37.5176 | ng    | 98        |
| 23) 1,2-Dichlorobenzene        | 6.033  | 146  | 111682     | 35.5485 | ng    | 94        |
| 24) Benzyl alcohol             | 6.011  | 108  | 74821      | 42.2052 | ng    | 68        |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 103760     | 34.7892 | ng    | 85        |
| 26) 2-Methylphenol             | 6.097  | 108  | 217799     | 85.7146 | ng    | 93        |
| 27) Acetophenone               | 6.220  | 105  | 168661     | 46.8707 | ng    | 96        |
| 28) Hexachloroethane           | 6.305  | 117  | 47660      | 38.2785 | ng    | 86        |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 68113      | 40.6172 | ng    | 80        |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 229236     | 94.9835 | ng    | 89        |
| 33) Nitrobenzene               | 6.359  | 77   | 109716     | 40.5831 | ng    | 79        |
| 34) Isophorone                 | 6.541  | 82   | 191831     | 41.2265 | ng    | 87        |
| 35) 2-Nitrophenol              | 6.605  | 139  | 129626     | 87.6130 | ng    | 89        |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 240801     | 87.1908 | ng    | 96        |
| 37) Benzoic Acid               | 6.707  | 105  | 97308      | 45.4584 | ng    | 88        |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 122255     | 41.8846 | ng    | 94        |
| 39) 2,4-Dichlorophenol         | 6.787  | 162  | 215630     | 89.4897 | ng    | 85        |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 104165     | 39.8779 | ng    | 94        |
| 41) Naphthalene                | 6.915  | 128  | 328096     | 39.6058 | ng    | 99        |
| 42) 4-Chloroaniline            | 6.953  | 127  | 87345      | 32.6478 | ng    | 94        |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 57458      | 39.2935 | ng    | 95        |
| 44) Caprolactam                | 7.231  | 113  | 43167      | 51.0936 | ng    | 61        |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 210327     | 95.2708 | ng    | 83        |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 229504     | 42.0726 | ng    | 99        |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 246807     | 45.9973 | ng    | 90        |
| 48) Methylnaphthalenes (To...  | 7.530  | 142  | 480548m    | 88.9812 | ng    |           |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 277420     | 40.9230 | ng    | 93        |
| 51) 1,2,4,5-Tetrachloroben...  | 7.584  | 216  | 127687     | 49.2296 | ng    | 97        |
| 52) Hexachlorocyclopentadiene  | 7.568  | 237  | 22214      | 24.3635 | ng    | 96        |
| 53) 2,4,6-Trichlorophenol      | 7.669  | 196  | 155195m    | 98.4871 | ng    |           |
| 54) 2,4,5-Trichlorophenol      | 7.707  | 196  | 161052     | 96.2235 | ng    | 97        |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 222049     | 44.4398 | ng    | 89        |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 179842     | 43.6087 | ng    | 84        |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 179842     | 43.6087 | ng    | 84        |
| 59) Diphenyl Ether             | 7.905  | 170  | 188599     | 50.9450 | ng    | 80        |
| 60) 2-Nitroaniline             | 7.926  | 65   | 80141      | 45.1334 | ng    | 45        |
| 61) Coumarin                   | 8.113  | 146  | 88999      | 48.3697 | ng    | 68        |
| 62) Acenaphthylene             | 8.210  | 152  | 355395     | 48.2240 | ng    | 98        |
| 63) Dimethylphthalate          | 8.065  | 163  | 251538     | 43.1029 | ng    | 98        |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 56770      | 46.7449 | ng    | 67        |
| 65) Acenaphthene               | 8.359  | 153  | 233899     | 45.0070 | ng    | 96        |



## Quantitation Report (QT Reviewed)

SampleID : AD07136-003 (MS) Operator : AH/JB Qt Meth : 10M\_1008.M  
 Data File: 10M71460.D Sam Mult : 1 Vial# : 23 Qt On : 10/22/18 10:39  
 Acq On : 10/19/18 18:52 Misc : S,BNA Qt Upd On: 10/19/18 15:07

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.284  | 138  | 51629    | 34.7015  | ng    | 70       |
| 67) 2,4-Dinitrophenol          | 8.375  | 184  | 55717    | 76.4823  | ng    | 40       |
| 68) Dibenzofuran               | 8.514  | 168  | 329215   | 43.7587  | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 79142    | 41.4652  | ng    | 62       |
| 70) 4-Nitrophenol              | 8.413  | 65   | 95676    | 88.9843  | ng    | 66       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.621  | 232  | 136073   | 93.3059  | ng    | 87       |
| 72) Fluorene                   | 8.841  | 166  | 265888   | 44.6241  | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.825  | 204  | 123153   | 43.3181  | ng    | 82       |
| 74) Diethylphthalate           | 8.702  | 149  | 252965   | 43.8555  | ng    | 94       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 68692    | 42.5611  | ng    | 85       |
| 76) Atrazine                   | 9.466  | 200  | 96822    | 50.0199  | ng    | 96       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 90987    | 87.0177  | ng    | 52       |
| 79) n-Nitrosodiphenylamine     | 8.942  | 169  | 187194   | 35.7089  | ng    | 100      |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 292360   | 45.7115  | ng    | 84       |
| 82) 4-Bromophenyl-phenylether  | 9.317  | 248  | 69978    | 43.4579  | ng    | 84       |
| 83) Hexachlorobenzene          | 9.392  | 284  | 71763    | 41.4945  | ng    | 67       |
| 84) N-Octadecane               | 9.638  | 57   | 118153   | 40.1622  | ng    | 82       |
| 85) Pentachlorophenol          | 9.589  | 266  | 92390    | 101.0389 | ng    | 96       |
| 86) Phenanthrene               | 9.825  | 178  | 392305   | 42.7047  | ng    | 99       |
| 87) Anthracene                 | 9.884  | 178  | 399753   | 42.8769  | ng    | 99       |
| 88) Carbazole                  | 10.049 | 167  | 373370   | 44.0177  | ng    | 95       |
| 89) Di-n-butylphthalate        | 10.419 | 149  | 453378   | 42.0591  | ng    | 97       |
| 90) Fluoranthene               | 11.162 | 202  | 434402   | 44.8359  | ng    | 88       |
| 92) Pyrene                     | 11.429 | 202  | 440173   | 41.6923  | ng    | 84       |
| 93) Benzidine                  | 11.322 | 184  | 3480     | 0.8807   | ng    | 89       |
| 97) Butylbenzylphthalate       | 12.184 | 149  | 199987   | 45.2858  | ng    | 75       |
| 99) 3,3'-Dichlorobenzidine     | 12.815 | 252  | 88009    | 27.5678  | ng    | 94       |
| 100) Benzo[a]anthracene        | 12.847 | 228  | 397580   | 41.8312  | ng    | 99       |
| 101) Chrysene                  | 12.890 | 228  | 370128   | 39.6551  | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 289334   | 44.1528  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 472178   | 44.7340  | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 402613   | 47.2940  | ng    | 93       |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 375495m  | 44.7720  | ng    |          |
| 107) Benzo[a]pyrene            | 14.435 | 252  | 352033   | 42.5841  | ng    | 90       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.858 | 276  | 378097   | 43.4521  | ng    | 83       |
| 109) Dibenzo[a,h]anthracene    | 15.874 | 278  | 319858   | 44.3127  | ng    | 89       |
| 110) Benzo[g,h,i]perylene      | 16.254 | 276  | 313681   | 40.8198  | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD07136-003(MSD)  
Data File: 10M71461.D  
Acq On : 10/19/18 19:14

Operator : AH/JB  
Sam Mult : 1 Vial# : 24  
Misc : S,BNA

Qt Meth : 10M\_1008.M  
Qt On : 10/22/18 10:39  
Qt Upd On: 10/19/18 15:07

Data Path : G:\GCMSData\2018\GCMS\_10\Data\10-19-18\  
Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|------------|---------|-------|----------|
| Internal Standards             |        |      |            |         |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.700  | 96   | 39690      | 40.00   | ng    | -0.03    |
| 21) 1,4-Dichlorobenzene-d4     | 5.893  | 152  | 83743      | 40.00   | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.899  | 136  | 310137     | 40.00   | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.332  | 164  | 196273     | 40.00   | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.803  | 188  | 345741     | 40.00   | ng    | 0.00     |
| 91) Chrysene-d12               | 12.863 | 240  | 338499     | 40.00   | ng    | 0.00     |
| 103) Perylene-d12              | 14.494 | 264  | 312488     | 40.00   | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |         |       |          |
| 11) 2-Fluorophenol             | 4.722  | 112  | 267802     | 116.56  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 116.56% |       |          |
| 16) Phenol-d5                  | 5.588  | 99   | 386661     | 124.34  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 124.34% |       |          |
| 32) Nitrobenzene-d5            | 6.343  | 128  | 53571      | 53.48   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 106.96% |       |          |
| 55) 2-Fluorobiphenyl           | 7.739  | 172  | 330343     | 52.57   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 105.14% |       |          |
| 80) 2,4,6-Tribromophenol       | 9.076  | 330  | 94292      | 116.84  | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 116.84% |       |          |
| 94) Terphenyl-d14              | 11.606 | 244  | 368420     | 59.40   | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 118.80% |       |          |
| Target Compounds               |        |      |            |         |       |          |
| 8) 1,4-Dioxane                 | 2.754  | 88   | 17950      | 18.7661 | ng    | 67       |
| 9) Pyridine                    | 3.246  | 79   | 41452      | 19.4740 | ng    | 71       |
| 10) N-Nitrosodimethylamine     | 3.176  | 74   | 52256      | 39.5078 | ng    | 92       |
| 12) Benzaldehyde               | 5.524  | 77   | 78917      | 71.3589 | ng    | 75       |
| 13) Aniline                    | 5.620  | 93   | 85370      | 26.6193 | ng    | 19       |
| 14) Pentachloroethane          | 5.658  | 117  | 36160      | 41.5957 | ng    | 74       |
| 15) bis(2-Chloroethyl)ether    | 5.674  | 93   | 91435      | 39.8034 | ng    | 73       |
| 17) Phenol                     | 5.599  | 94   | 283981     | 92.2058 | ng    | 88       |
| 18) 2-Chlorophenol             | 5.722  | 128  | 230496     | 89.6034 | ng    | 71       |
| 19) N-Decane                   | 5.749  | 57   | 65237m     | 32.3133 | ng    |          |
| 20) 1,3-Dichlorobenzene        | 5.845  | 146  | 107169     | 37.5716 | ng    | 97       |
| 22) 1,4-Dichlorobenzene        | 5.909  | 146  | 112030     | 36.3549 | ng    | 99       |
| 23) 1,2-Dichlorobenzene        | 6.032  | 146  | 106773     | 35.4587 | ng    | 92       |
| 24) Benzyl alcohol             | 6.011  | 108  | 73211      | 43.0866 | ng    | 65       |
| 25) bis(2-chloroisopropyl)...  | 6.113  | 45   | 99838      | 34.9248 | ng    | 81       |
| 26) 2-Methylphenol             | 6.096  | 108  | 212483     | 87.2462 | ng    | 96       |
| 27) Acetophenone               | 6.220  | 105  | 164465     | 47.6852 | ng    | 95       |
| 28) Hexachloroethane           | 6.305  | 117  | 43784      | 36.6893 | ng    | 90       |
| 29) N-Nitroso-di-n-propyla...  | 6.214  | 70   | 68036      | 42.3294 | ng    | 81       |
| 30) 3&4-Methylphenol           | 6.214  | 108  | 224731     | 97.1521 | ng    | 81       |
| 33) Nitrobenzene               | 6.359  | 77   | 110738     | 41.0967 | ng    | 76       |
| 34) Isophorone                 | 6.540  | 82   | 189044     | 40.7620 | ng    | 85       |
| 35) 2-Nitrophenol              | 6.605  | 139  | 125579     | 85.1588 | ng    | 90       |
| 36) 2,4-Dimethylphenol         | 6.626  | 107  | 236178     | 85.8001 | ng    | 94       |
| 37) Benzoic Acid               | 6.706  | 105  | 93894      | 44.2023 | ng    | 85       |
| 38) bis(2-Chloroethoxy)met...  | 6.696  | 93   | 119931     | 41.2245 | ng    | 93       |
| 39) 2,4-Dichlorophenol         | 6.786  | 162  | 212843     | 88.6255 | ng    | 85       |
| 40) 1,2,4-Trichlorobenzene     | 6.851  | 180  | 101700     | 39.0631 | ng    | 96       |
| 41) Naphthalene                | 6.915  | 128  | 333512     | 40.4026 | ng    | 97       |
| 42) 4-Chloroaniline            | 6.952  | 127  | 86848      | 32.5696 | ng    | 92       |
| 43) Hexachlorobutadiene        | 6.995  | 225  | 56107      | 38.4966 | ng    | 95       |
| 44) Caprolactam                | 7.230  | 113  | 43973      | 52.1146 | ng    | 56       |
| 45) 4-Chloro-3-methylphenol    | 7.311  | 107  | 207876     | 94.4724 | ng    | 77       |
| 46) 2-Methylnaphthalene        | 7.450  | 142  | 226316     | 41.6256 | ng    | 95       |
| 47) 1-Methylnaphthalene        | 7.530  | 142  | 251864     | 47.0952 | ng    | 94       |
| 48) Methylnaphthalenes (To...  | 7.530  | 142  | 473938m    | 88.0479 | ng    |          |
| 49) 1,1'-Biphenyl              | 7.824  | 154  | 257080     | 38.0481 | ng    | 92       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.583  | 216  | 117092     | 43.5229 | ng    | 96       |
| 52) Hexachlorocyclopentadiene  | 7.567  | 237  | 19400      | 20.6880 | ng    | 95       |
| 53) 2,4,6-Trichlorophenol      | 7.669  | 196  | 153319     | 93.8013 | ng    | 96       |
| 54) 2,4,5-Trichlorophenol      | 7.706  | 196  | 162038m    | 93.3347 | ng    |          |
| 56) 2-Chloronaphthalene        | 7.851  | 162  | 219384     | 42.3291 | ng    | 91       |
| 57) 1,4-Dimethylnaphthalene    | 8.129  | 156  | 171042     | 39.9849 | ng    | 89       |
| 58) Dimethylnaphthalenes (...) | 8.129  | 156  | 171042     | 39.9849 | ng    | 89       |
| 59) Diphenyl Ether             | 7.904  | 170  | 176549     | 45.9768 | ng    | 85       |
| 60) 2-Nitroaniline             | 7.926  | 65   | 81973      | 44.5067 | ng    | 53       |
| 61) Coumarin                   | 8.113  | 146  | 87963      | 46.0893 | ng    | 64       |
| 62) Acenaphthylene             | 8.209  | 152  | 338778     | 44.3178 | ng    | 98       |
| 63) Dimethylphthalate          | 8.065  | 163  | 261977     | 43.2790 | ng    | 98       |
| 64) 2,6-Dinitrotoluene         | 8.129  | 165  | 57958      | 46.0087 | ng    | 71       |
| 65) Acenaphthene               | 8.359  | 153  | 230332     | 42.7284 | ng    | 94       |

## Quantitation Report (QT Reviewed)

SampleID : AD07136-003(MSD) Operator : AH/JB Qt Meth : 10M\_1008.M  
 Data File: 10M71461.D Sam Mult : 1 Vial# : 24 Qt On : 10/22/18 10:39  
 Acq On : 10/19/18 19:14 Misc : S,BNA Qt Upd On: 10/19/18 15:07

Data Path : G:\GcMsData\2018\GCMS\_10\Data\10-19-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_10\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 66) 3-Nitroaniline             | 8.279  | 138  | 51642    | 33.4218  | ng    | 75       |
| 67) 2,4-Dinitrophenol          | 8.375  | 184  | 59553    | 78.3257  | ng    | 42       |
| 68) Dibenzofuran               | 8.514  | 168  | 332515   | 42.5902  | ng    | 90       |
| 69) 2,4-Dinitrotoluene         | 8.493  | 165  | 79870    | 40.3454  | ng    | 65       |
| 70) 4-Nitrophenol              | 8.412  | 65   | 100722   | 90.2347  | ng    | 58       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.626  | 232  | 127700   | 84.4188  | ng    | 87       |
| 72) Fluorene                   | 8.840  | 166  | 263384   | 42.6159  | ng    | 98       |
| 73) 4-Chlorophenyl-phenyle...  | 8.824  | 204  | 124829   | 42.3303  | ng    | 82       |
| 74) Diethylphthalate           | 8.701  | 149  | 259164   | 43.3161  | ng    | 97       |
| 75) 4-Nitroaniline             | 8.851  | 138  | 66754    | 39.9267  | ng    | 94       |
| 76) Atrazine                   | 9.471  | 200  | 98288    | 48.9531  | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.878  | 198  | 98310    | 93.7333  | ng    | 43       |
| 79) n-Nitrosodiphenylamine     | 8.937  | 169  | 195265   | 37.4593  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.985  | 77   | 293230   | 46.1069  | ng    | 85       |
| 82) 4-Bromophenyl-phenylether  | 9.316  | 248  | 72082    | 45.0178  | ng    | 89       |
| 83) Hexachlorobenzene          | 9.391  | 284  | 74147    | 43.1155  | ng    | 69       |
| 84) N-Octadecane               | 9.637  | 57   | 117192   | 40.0609  | ng    | 81       |
| 85) Pentachlorophenol          | 9.589  | 266  | 96385    | 105.1929 | ng    | 97       |
| 86) Phenanthrene               | 9.824  | 178  | 399738   | 43.7600  | ng    | 99       |
| 87) Anthracene                 | 9.883  | 178  | 417102   | 44.9908  | ng    | 99       |
| 88) Carbazole                  | 10.049 | 167  | 371934   | 44.0964  | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.418 | 149  | 466466   | 43.5521  | ng    | 97       |
| 90) Fluoranthene               | 11.162 | 202  | 450333   | 46.7431  | ng    | 86       |
| 92) Pyrene                     | 11.429 | 202  | 464557   | 44.5291  | ng    | 81       |
| 93) Benzidine                  | 11.322 | 184  | 2423     | 0.6207   | ng    | 98       |
| 97) Butylbenzylphthalate       | 12.183 | 149  | 201281   | 46.0475  | ng    | 76       |
| 99) 3,3'-Dichlorobenzidine     | 12.814 | 252  | 88722    | 28.1281  | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.846 | 228  | 421546   | 44.8842  | ng    | 97       |
| 101) Chrysene                  | 12.889 | 228  | 381353   | 41.3473  | ng    | 98       |
| 102) bis(2-Ethylhexyl)phtha... | 12.868 | 149  | 307250   | 47.4486  | ng    | 95       |
| 104) Di-n-octylphthalate       | 13.617 | 149  | 482588   | 45.8937  | ng    | 99       |
| 105) Benzo[b]fluoranthene      | 14.066 | 252  | 413871   | 48.8028  | ng    | 91       |
| 106) Benzo[k]fluoranthene      | 14.093 | 252  | 392772m  | 47.0116  | ng    |          |
| 107) Benzo[a]pyrene            | 14.430 | 252  | 358389   | 43.5192  | ng    | 93       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.863 | 276  | 394259   | 45.4832  | ng    | 90       |
| 109) Dibenzo[a,h]anthracene    | 15.879 | 278  | 341484   | 47.4901  | ng    | 89       |
| 110) Benzo[g,h,i]perylene      | 16.254 | 276  | 336931   | 44.0135  | ng    | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71497**

8101509 0643

|                                      |                 |                       |
|--------------------------------------|-----------------|-----------------------|
| Data File                            | Sample ID:      | Analysis Date         |
| Spike or Dup: 5M105928.D             | AD07161-001(MS) | 10/23/2018 10:45:00 A |
| Non Spike(If applicable): 5M105927.D | AD07161-001     | 10/23/2018 10:21:00 A |
| Inst Blank(If applicable):           |                 |                       |
| Method: 625.1                        | Matrix: Aqueous | QC Type: MS           |

| Analyte:                    | Col | Spike Conc | Sample Conc | Expected Conc | Recovery | Lower Limit | Upper Limit |
|-----------------------------|-----|------------|-------------|---------------|----------|-------------|-------------|
| 1,4-Dioxane                 | 1   | 79.05      | 0           | 100           | 79       | 20          | 160         |
| Pyridine                    | 1   | 42.8366    | 0           | 100           | 43       | 1           | 150         |
| N-Nitrosodimethylamine      | 1   | 74.2596    | 0           | 100           | 74       | 20          | 150         |
| Benzaldehyde                | 1   | 138.2068   | 0           | 100           | 138      | 20          | 234         |
| Aniline                     | 1   | 66.4807    | 0           | 100           | 66       | 20          | 150         |
| Pentachloroethane           | 1   | 87.705     | 0           | 100           | 88       | 5           | 140         |
| bis(2-Chloroethyl)ether     | 1   | 77.0152    | 0           | 100           | 77       | 12          | 158         |
| Phenol                      | 1   | 76.0985    | 0           | 100           | 76       | 5           | 120         |
| 2-Chlorophenol              | 1   | 86.984     | 0           | 100           | 87       | 23          | 134         |
| N-Decane                    | 1   | 75.8828    | 0           | 100           | 76       | 40          | 130         |
| 1,3-Dichlorobenzene         | 1   | 72.8177    | 0           | 100           | 73       | 20          | 130         |
| 1,4-Dichlorobenzene         | 1   | 75.3521    | 0           | 100           | 75       | 25          | 130         |
| 1,2-Dichlorobenzene         | 1   | 76.9314    | 0           | 100           | 77       | 25          | 130         |
| Benzyl alcohol              | 1   | 100.2758   | 0           | 100           | 100      | 35          | 130         |
| bis(2-chloroisopropyl)ether | 1   | 69.7337    | 0           | 100           | 70       | 36          | 166         |
| 2-Methylphenol              | 1   | 91.9522    | 0           | 100           | 92       | 35          | 130         |
| Acetophenone                | 1   | 99.8858    | 0           | 100           | 100      | 50          | 130         |
| Hexachloroethane            | 1   | 74.7076    | 0           | 100           | 75       | 40          | 120         |
| N-Nitroso-di-n-propylamine  | 1   | 76.4543    | 0           | 100           | 76       | 1           | 230         |
| 3&4-Methylphenol            | 1   | 86.7057    | 0           | 100           | 87       | 30          | 130         |
| Nitrobenzene                | 1   | 83.2033    | 0           | 100           | 83       | 35          | 180         |
| Isophorone                  | 1   | 85.3608    | 0           | 100           | 85       | 21          | 196         |
| 2-Nitrophenol               | 1   | 93.5174    | 0           | 100           | 94       | 29          | 182         |
| 2,4-Dimethylphenol          | 1   | 80.9145    | 0           | 100           | 81       | 32          | 120         |
| Benzoic Acid                | 1   | 38.437     | 0           | 100           | 38       | 1           | 130         |
| bis(2-Chloroethoxy)methane  | 1   | 80.3537    | 0           | 100           | 80       | 33          | 184         |
| 2,4-Dichlorophenol          | 1   | 91.7772    | 0           | 100           | 92       | 39          | 135         |
| 1,2,4-Trichlorobenzene      | 1   | 80.8283    | 0           | 100           | 81       | 44          | 142         |
| Naphthalene                 | 1   | 80.0422    | 0           | 100           | 80       | 21          | 133         |
| 4-Chloroaniline             | 1   | 103.1922   | 0           | 100           | 103      | 30          | 170         |
| Hexachlorobutadiene         | 1   | 82.8454    | 0           | 100           | 83       | 24          | 120         |
| Caprolactam                 | 1   | 99.4056    | 0           | 100           | 99       | 5           | 130         |
| 4-Chloro-3-methylphenol     | 1   | 93.8997    | 0           | 100           | 94       | 22          | 147         |
| 2-Methylnaphthalene         | 1   | 100.3154   | 0           | 100           | 100      | 40          | 130         |
| 1-Methylnaphthalene         | 1   | 104.404    | 0           | 100           | 104      | 50          | 130         |
| 1,1'-Biphenyl               | 1   | 89.4267    | 0           | 100           | 89       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene  | 1   | 104.4884   | 0           | 100           | 104      | 60          | 140         |
| Hexachlorocyclopentadiene   | 1   | 78.9205    | 0           | 100           | 79       | 20          | 130         |
| 2,4,6-Trichlorophenol       | 1   | 95.9188    | 0           | 100           | 96       | 37          | 144         |
| 2,4,5-Trichlorophenol       | 1   | 95.8201    | 0           | 100           | 96       | 50          | 130         |
| 2-Chloronaphthalene         | 1   | 87.2742    | 0           | 100           | 87       | 60          | 120         |
| 1,4-Dimethylnaphthalene     | 1   | 83.1617    | 0           | 100           | 83       | 50          | 130         |
| Diphenyl Ether              | 1   | 106.3235   | 0           | 100           | 106      | 50          | 140         |
| 2-Nitroaniline              | 1   | 97.8076    | 0           | 100           | 98       | 40          | 150         |
| Coumarin                    | 1   | 97.0873    | 0           | 100           | 97       | 1           | 180         |
| Acenaphthylene              | 1   | 94.5488    | 0           | 100           | 95       | 33          | 145         |
| Dimethylphthalate           | 1   | 88.9533    | 0           | 100           | 89       | 1           | 120         |
| 2,6-Dinitrotoluene          | 1   | 82.6502    | 0           | 100           | 83       | 50          | 158         |
| Acenaphthene                | 1   | 89.1847    | 0           | 100           | 89       | 47          | 145         |
| 3-Nitroaniline              | 1   | 114.4031   | 0           | 100           | 114      | 40          | 150         |
| 2,4-Dinitrophenol           | 1   | 97.1961    | 0           | 100           | 97       | 1           | 191         |
| Dibenzofuran                | 1   | 99.8598    | 0           | 100           | 100      | 50          | 130         |
| 2,4-Dinitrotoluene          | 1   | 87.1642    | 0           | 100           | 87       | 39          | 139         |
| 4-Nitrophenol               | 1   | 75.3343    | 0           | 100           | 75       | 1           | 132         |
| 2,3,4,6-Tetrachlorophenol   | 1   | 89.0021    | 0           | 100           | 89       | 50          | 130         |
| Fluorene                    | 1   | 88.352     | 0           | 100           | 88       | 59          | 121         |
| 4-Chlorophenyl-phenylether  | 1   | 88.6811    | 0           | 100           | 89       | 1           | 132         |
| Diethylphthalate            | 1   | 86.2868    | 0           | 100           | 86       | 1           | 120         |
| 4-Nitroaniline              | 1   | 102.1912   | 0           | 100           | 102      | 40          | 150         |
| Atrazine                    | 1   | 96.9905    | 0           | 100           | 97       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol  | 1   | 106.8505   | 0           | 100           | 107      | 1           | 181         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |         |   |     |    |    |     |
|----------------------------|---|---------|---|-----|----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 71.3249 | 0 | 100 | 71 | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 85.5388 | 0 | 100 | 86 | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 91.4732 | 0 | 100 | 91 | 53 | 127 |
| Hexachlorobenzene          | 1 | 90.6183 | 0 | 100 | 91 | 1  | 152 |
| N-Octadecane               | 1 | 80.5188 | 0 | 100 | 81 | 50 | 130 |
| Pentachlorophenol          | 1 | 97.7678 | 0 | 100 | 98 | 14 | 176 |
| Phenanthrene               | 1 | 87.0894 | 0 | 100 | 87 | 54 | 120 |
| Anthracene                 | 1 | 88.5778 | 0 | 100 | 89 | 27 | 133 |
| Carbazole                  | 1 | 98.0528 | 0 | 100 | 98 | 40 | 130 |
| Di-n-butylphthalate        | 1 | 83.6981 | 0 | 100 | 84 | 1  | 120 |
| Fluoranthene               | 1 | 88.1544 | 0 | 100 | 88 | 26 | 137 |
| Pyrene                     | 1 | 94.7395 | 0 | 100 | 95 | 52 | 120 |
| Benzidine                  | 1 | 20.4431 | 0 | 100 | 20 | 1  | 130 |
| Butylbenzylphthalate       | 1 | 85.8754 | 0 | 100 | 86 | 1  | 152 |
| 3,3'-Dichlorobenzidine     | 1 | 83.0334 | 0 | 100 | 83 | 1  | 262 |
| Benzo[a]anthracene         | 1 | 89.8715 | 0 | 100 | 90 | 33 | 143 |
| Chrysene                   | 1 | 84.295  | 0 | 100 | 84 | 17 | 168 |
| bis(2-Ethylhexyl)phthalate | 1 | 80.3978 | 0 | 100 | 80 | 8  | 158 |
| Di-n-octylphthalate        | 1 | 80.2598 | 0 | 100 | 80 | 4  | 146 |
| Benzo[b]fluoranthene       | 1 | 97.6704 | 0 | 100 | 98 | 42 | 159 |
| Benzo[k]fluoranthene       | 1 | 95.7484 | 0 | 100 | 96 | 11 | 162 |
| Benzo[a]pyrene             | 1 | 86.0635 | 0 | 100 | 86 | 17 | 163 |
| Indeno[1,2,3-cd]pyrene     | 1 | 89.8322 | 0 | 100 | 90 | 1  | 171 |
| Dibenzo[a,h]anthracene     | 1 | 90.1092 | 0 | 100 | 90 | 1  | 227 |
| Benzo[g,h,i]perylene       | 1 | 87.6259 | 0 | 100 | 88 | 1  | 219 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: WMB71497**

**8101509 0645**

| Data File                            |     | Sample ID:       |             | Analysis Date         |          |             |             |
|--------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 5M105929.D             |     | AD07161-001(MSD) |             | 10/23/2018 11:08:00 A |          |             |             |
| Non Spike(If applicable): 5M105927.D |     | AD07161-001      |             | 10/23/2018 10:21:00 A |          |             |             |
| Inst Blank(If applicable):           |     |                  |             |                       |          |             |             |
| Method: 625.1                        |     | Matrix: Aqueous  |             | QC Type: MSD          |          |             |             |
| Analyte:                             | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| 1,4-Dioxane                          | 1   | 68.2816          | 0           | 100                   | 68       | 20          | 160         |
| Pyridine                             | 1   | 44.349           | 0           | 100                   | 44       | 1           | 150         |
| N-Nitrosodimethylamine               | 1   | 71.8197          | 0           | 100                   | 72       | 20          | 150         |
| Benzaldehyde                         | 1   | 125.3219         | 0           | 100                   | 125      | 20          | 234         |
| Aniline                              | 1   | 69.1928          | 0           | 100                   | 69       | 20          | 150         |
| Pentachloroethane                    | 1   | 80.7511          | 0           | 100                   | 81       | 5           | 140         |
| bis(2-Chloroethyl)ether              | 1   | 75.1887          | 0           | 100                   | 75       | 43          | 126         |
| Phenol                               | 1   | 74.6329          | 0           | 100                   | 75       | 17          | 120         |
| 2-Chlorophenol                       | 1   | 78.1276          | 0           | 100                   | 78       | 36          | 120         |
| N-Decane                             | 1   | 68.0295          | 0           | 100                   | 68       | 40          | 130         |
| 1,3-Dichlorobenzene                  | 1   | 69.1102          | 0           | 100                   | 69       | 20          | 130         |
| 1,4-Dichlorobenzene                  | 1   | 70.7609          | 0           | 100                   | 71       | 25          | 130         |
| 1,2-Dichlorobenzene                  | 1   | 71.9242          | 0           | 100                   | 72       | 25          | 130         |
| Benzyl alcohol                       | 1   | 92.7663          | 0           | 100                   | 93       | 35          | 130         |
| bis(2-chloroisopropyl)ether          | 1   | 67.7582          | 0           | 100                   | 68       | 63          | 139         |
| 2-Methylphenol                       | 1   | 86.8524          | 0           | 100                   | 87       | 35          | 130         |
| Acetophenone                         | 1   | 94.2778          | 0           | 100                   | 94       | 50          | 130         |
| Hexachloroethane                     | 1   | 69.4415          | 0           | 100                   | 69       | 55          | 120         |
| N-Nitroso-di-n-propylamine           | 1   | 76.4395          | 0           | 100                   | 76       | 14          | 198         |
| 3&4-Methylphenol                     | 1   | 81.178           | 0           | 100                   | 81       | 30          | 130         |
| Nitrobenzene                         | 1   | 82.7286          | 0           | 100                   | 83       | 54          | 158         |
| Isophorone                           | 1   | 88.7169          | 0           | 100                   | 89       | 47          | 180         |
| 2-Nitrophenol                        | 1   | 89.8817          | 0           | 100                   | 90       | 45          | 167         |
| 2,4-Dimethylphenol                   | 1   | 78.5171          | 0           | 100                   | 79       | 42          | 120         |
| Benzoic Acid                         | 1   | 41.4355          | 0           | 100                   | 41       | 1           | 130         |
| bis(2-Chloroethoxy)methane           | 1   | 83.3905          | 0           | 100                   | 83       | 49          | 165         |
| 2,4-Dichlorophenol                   | 1   | 88.7551          | 0           | 100                   | 89       | 53          | 122         |
| 1,2,4-Trichlorobenzene               | 1   | 78.1487          | 0           | 100                   | 78       | 57          | 130         |
| Naphthalene                          | 1   | 78.8212          | 0           | 100                   | 79       | 36          | 120         |
| 4-Chloroaniline                      | 1   | 99.6196          | 0           | 100                   | 100      | 30          | 170         |
| Hexachlorobutadiene                  | 1   | 81.2486          | 0           | 100                   | 81       | 38          | 120         |
| Caprolactam                          | 1   | 99.1742          | 0           | 100                   | 99       | 5           | 130         |
| 4-Chloro-3-methylphenol              | 1   | 92.8232          | 0           | 100                   | 93       | 41          | 128         |
| 2-Methylnaphthalene                  | 1   | 97.0789          | 0           | 100                   | 97       | 40          | 130         |
| 1-Methylnaphthalene                  | 1   | 103.286          | 0           | 100                   | 103      | 50          | 130         |
| 1,1'-Biphenyl                        | 1   | 86.8566          | 0           | 100                   | 87       | 50          | 130         |
| 1,2,4,5-Tetrachlorobenzene           | 1   | 96.3947          | 0           | 100                   | 96       | 60          | 140         |
| Hexachlorocyclopentadiene            | 1   | 81.2069          | 0           | 100                   | 81       | 20          | 130         |
| 2,4,6-Trichlorophenol                | 1   | 90.732           | 0           | 100                   | 91       | 52          | 129         |
| 2,4,5-Trichlorophenol                | 1   | 91.8772          | 0           | 100                   | 92       | 50          | 130         |
| 2-Chloronaphthalene                  | 1   | 87.747           | 0           | 100                   | 88       | 65          | 120         |
| 1,4-Dimethylnaphthalene              | 1   | 82.7931          | 0           | 100                   | 83       | 50          | 130         |
| Diphenyl Ether                       | 1   | 100.8384         | 0           | 100                   | 101      | 50          | 140         |
| 2-Nitroaniline                       | 1   | 95.1044          | 0           | 100                   | 95       | 40          | 150         |
| Coumarin                             | 1   | 98.7609          | 0           | 100                   | 99       | 1           | 180         |
| Acenaphthylene                       | 1   | 94.4233          | 0           | 100                   | 94       | 54          | 126         |
| Dimethylphthalate                    | 1   | 90.3794          | 0           | 100                   | 90       | 1           | 120         |
| 2,6-Dinitrotoluene                   | 1   | 87.5912          | 0           | 100                   | 88       | 68          | 137         |
| Acenaphthene                         | 1   | 86.3864          | 0           | 100                   | 86       | 60          | 132         |
| 3-Nitroaniline                       | 1   | 110.7095         | 0           | 100                   | 111      | 40          | 150         |
| 2,4-Dinitrophenol                    | 1   | 98.3072          | 0           | 100                   | 98       | 1           | 173         |
| Dibenzofuran                         | 1   | 96.1558          | 0           | 100                   | 96       | 50          | 130         |
| 2,4-Dinitrotoluene                   | 1   | 88.613           | 0           | 100                   | 89       | 48          | 127         |
| 4-Nitrophenol                        | 1   | 72.8742          | 0           | 100                   | 73       | 13          | 129         |
| 2,3,4,6-Tetrachlorophenol            | 1   | 85.4238          | 0           | 100                   | 85       | 50          | 130         |
| Fluorene                             | 1   | 90.0064          | 0           | 100                   | 90       | 70          | 120         |
| 4-Chlorophenyl-phenylether           | 1   | 88.9804          | 0           | 100                   | 89       | 38          | 145         |
| Diethylphthalate                     | 1   | 90.7178          | 0           | 100                   | 91       | 1           | 120         |
| 4-Nitroaniline                       | 1   | 97.3619          | 0           | 100                   | 97       | 40          | 150         |
| Atrazine                             | 1   | 96.2728          | 0           | 100                   | 96       | 40          | 150         |
| 4,6-Dinitro-2-methylphenol           | 1   | 108.4842         | 0           | 100                   | 108      | 53          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



## Recovery Data Laboratory Limits

QC Batch: WMB71497

|                            |   |         |   |     |     |    |     |
|----------------------------|---|---------|---|-----|-----|----|-----|
| n-Nitrosodiphenylamine     | 1 | 74.5203 | 0 | 100 | 75  | 30 | 130 |
| 1,2-Diphenylhydrazine      | 1 | 89.0789 | 0 | 100 | 89  | 40 | 130 |
| 4-Bromophenyl-phenylether  | 1 | 94.5851 | 0 | 100 | 95  | 65 | 120 |
| Hexachlorobenzene          | 1 | 92.6342 | 0 | 100 | 93  | 8  | 142 |
| N-Octadecane               | 1 | 77.9372 | 0 | 100 | 78  | 50 | 130 |
| Pentachlorophenol          | 1 | 99.9717 | 0 | 100 | 100 | 38 | 152 |
| Phenanthrene               | 1 | 88.9241 | 0 | 100 | 89  | 65 | 120 |
| Anthracene                 | 1 | 92.0549 | 0 | 100 | 92  | 43 | 120 |
| Carbazole                  | 1 | 98.5842 | 0 | 100 | 99  | 40 | 130 |
| Di-n-butylphthalate        | 1 | 87.89   | 0 | 100 | 88  | 8  | 120 |
| Fluoranthene               | 1 | 91.0675 | 0 | 100 | 91  | 43 | 121 |
| Pyrene                     | 1 | 96.823  | 0 | 100 | 97  | 70 | 120 |
| Benzidine                  | 1 | 25.6712 | 0 | 100 | 26  | 1  | 134 |
| Butylbenzylphthalate       | 1 | 90.5018 | 0 | 100 | 91  | 1  | 140 |
| 3,3'-Dichlorobenzidine     | 1 | 87.6906 | 0 | 100 | 88  | 8  | 213 |
| Benzo[a]anthracene         | 1 | 94.1764 | 0 | 100 | 94  | 42 | 133 |
| Chrysene                   | 1 | 87.0349 | 0 | 100 | 87  | 44 | 140 |
| bis(2-Ethylhexyl)phthalate | 1 | 84.5013 | 0 | 100 | 85  | 29 | 137 |
| Di-n-octylphthalate        | 1 | 82.2926 | 0 | 100 | 82  | 19 | 132 |
| Benzo[b]fluoranthene       | 1 | 97.9836 | 0 | 100 | 98  | 42 | 140 |
| Benzo[k]fluoranthene       | 1 | 99.8666 | 0 | 100 | 100 | 25 | 146 |
| Benzo[a]pyrene             | 1 | 89.5215 | 0 | 100 | 90  | 32 | 148 |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.5163 | 0 | 100 | 92  | 1  | 151 |
| Dibenzo[a,h]anthracene     | 1 | 90.6074 | 0 | 100 | 91  | 1  | 200 |
| Benzo[g,h,i]perylene       | 1 | 90.1772 | 0 | 100 | 90  | 1  | 195 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: WMB71497**

**8101509 0647**

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 5M105929.D             | AD07161-001(MSD) | 10/23/2018 11:08:00 A |
| Duplicate(If applicable): 5M105928.D | AD07161-001(MS)  | 10/23/2018 10:45:00 A |
| Inst Blank(If applicable):           |                  |                       |
| Method: 625.1                        | Matrix: Aqueous  | QC Type: MSD          |

| Analyte:                    | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBSD<br>Conc | RPD  | Limit |
|-----------------------------|--------|----------------------|------------------------|------|-------|
| 1,4-Dioxane                 | 1      | 68.2816              | 79.05                  | 15   | 20    |
| Pyridine                    | 1      | 44.349               | 42.8366                | 3.5  | 40    |
| N-Nitrosodimethylamine      | 1      | 71.8197              | 74.2596                | 3.3  | 20    |
| Benzaldehyde                | 1      | 125.3219             | 138.2068               | 9.8  | 20    |
| Aniline                     | 1      | 69.1928              | 66.4807                | 4    | 20    |
| Pentachloroethane           | 1      | 80.7511              | 87.705                 | 8.3  | 20    |
| bis(2-Chloroethyl)ether     | 1      | 75.1887              | 77.0152                | 2.4  | 108   |
| Phenol                      | 1      | 74.6329              | 76.0985                | 1.9  | 64    |
| 2-Chlorophenol              | 1      | 78.1276              | 86.984                 | 11   | 61    |
| N-Decane                    | 1      | 68.0295              | 75.8828                | 11   | 20    |
| 1,3-Dichlorobenzene         | 1      | 69.1102              | 72.8177                | 5.2  | 20    |
| 1,4-Dichlorobenzene         | 1      | 70.7609              | 75.3521                | 6.3  | 40    |
| 1,2-Dichlorobenzene         | 1      | 71.9242              | 76.9314                | 6.7  | 20    |
| Benzyl alcohol              | 1      | 92.7663              | 100.2758               | 7.8  | 20    |
| bis(2-chloroisopropyl)ether | 1      | 67.7582              | 69.7337                | 2.9  | 76    |
| 2-Methylphenol              | 1      | 86.8524              | 91.9522                | 5.7  | 40    |
| Acetophenone                | 1      | 94.2778              | 99.8858                | 5.8  | 20    |
| Hexachloroethane            | 1      | 69.4415              | 74.7076                | 7.3  | 52    |
| N-Nitroso-di-n-propylamine  | 1      | 76.4395              | 76.4543                | 0.02 | 87    |
| 3&4-Methylphenol            | 1      | 81.178               | 86.7057                | 6.6  | 40    |
| Nitrobenzene                | 1      | 82.7286              | 83.2033                | 0.57 | 62    |
| Isophorone                  | 1      | 88.7169              | 85.3608                | 3.9  | 93    |
| 2-Nitrophenol               | 1      | 89.8817              | 93.5174                | 4    | 55    |
| 2,4-Dimethylphenol          | 1      | 78.5171              | 80.9145                | 3    | 58    |
| Benzoic Acid                | 1      | 41.4355              | 38.437                 | 7.5  | 20    |
| bis(2-Chloroethoxy)methane  | 1      | 83.3905              | 80.3537                | 3.7  | 54    |
| 2,4-Dichlorophenol          | 1      | 88.7551              | 91.7772                | 3.3  | 50    |
| 1,2,4-Trichlorobenzene      | 1      | 78.1487              | 80.8283                | 3.4  | 50    |
| Naphthalene                 | 1      | 78.8212              | 80.0422                | 1.5  | 65    |
| 4-Chloroaniline             | 1      | 99.6196              | 103.1922               | 3.5  | 20    |
| Hexachlorobutadiene         | 1      | 81.2486              | 82.8454                | 1.9  | 62    |
| Caprolactam                 | 1      | 99.1742              | 99.4056                | 0.23 | 20    |
| 4-Chloro-3-methylphenol     | 1      | 92.8232              | 93.8997                | 1.2  | 73    |
| 2-Methylnaphthalene         | 1      | 97.0789              | 100.3154               | 3.3  | 20    |
| 1-Methylnaphthalene         | 1      | 103.286              | 104.404                | 1.1  | 20    |
| 1,1'-Biphenyl               | 1      | 86.8566              | 89.4267                | 2.9  | 20    |
| 1,2,4,5-Tetrachlorobenzene  | 1      | 96.3947              | 104.4884               | 8.1  | 20    |
| Hexachlorocyclopentadiene   | 1      | 81.2069              | 78.9205                | 2.9  | 20    |
| 2,4,6-Trichlorophenol       | 1      | 90.732               | 95.9188                | 5.6  | 58    |
| 2,4,5-Trichlorophenol       | 1      | 91.8772              | 95.8201                | 4.2  | 40    |
| 2-Chloronaphthalene         | 1      | 87.747               | 87.2742                | 0.54 | 24    |
| 1,4-Dimethylnaphthalene     | 1      | 82.7931              | 83.1617                | 0.44 | 20    |
| Diphenyl Ether              | 1      | 100.8384             | 106.3235               | 5.3  | 20    |
| 2-Nitroaniline              | 1      | 95.1044              | 97.8076                | 2.8  | 20    |
| Coumarin                    | 1      | 98.7609              | 97.0873                | 1.7  | 20    |
| Acenaphthylene              | 1      | 94.4233              | 94.5488                | 0.13 | 74    |
| Dimethylphthalate           | 1      | 90.3794              | 88.9533                | 1.6  | 183   |
| 2,6-Dinitrotoluene          | 1      | 87.5912              | 82.6502                | 5.8  | 48    |
| Acenaphthene                | 1      | 86.3864              | 89.1847                | 3.2  | 48    |
| 3-Nitroaniline              | 1      | 110.7095             | 114.4031               | 3.3  | 20    |
| 2,4-Dinitrophenol           | 1      | 98.3072              | 97.1961                | 1.1  | 132   |
| Dibenzofuran                | 1      | 96.1558              | 99.8598                | 3.8  | 20    |
| 2,4-Dinitrotoluene          | 1      | 88.613               | 87.1642                | 1.6  | 42    |
| 4-Nitrophenol               | 1      | 72.8742              | 75.3343                | 3.3  | 131   |
| 2,3,4,6-Tetrachlorophenol   | 1      | 85.4238              | 89.0021                | 4.1  | 20    |
| Fluorene                    | 1      | 90.0064              | 88.352                 | 1.9  | 38    |
| 4-Chlorophenyl-phenylether  | 1      | 88.9804              | 88.6811                | 0.34 | 61    |
| Diethylphthalate            | 1      | 90.7178              | 86.2868                | 5    | 100   |
| 4-Nitroaniline              | 1      | 97.3619              | 102.1912               | 4.8  | 20    |
| Atrazine                    | 1      | 96.2728              | 96.9905                | 0.74 | 20    |
| 4,6-Dinitro-2-methylphenol  | 1      | 108.4842             | 106.8505               | 1.5  | 203   |
| n-Nitrosodiphenylamine      | 1      | 74.5203              | 71.3249                | 4.4  | 20    |
| 1,2-Diphenylhydrazine       | 1      | 89.0789              | 85.5388                | 4.1  | 20    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0648**

QC Batch: WMB71497

|                            |   |         |         |      |     |
|----------------------------|---|---------|---------|------|-----|
| 4-Bromophenyl-phenylether  | 1 | 94.5851 | 91.4732 | 3.3  | 43  |
| Hexachlorobenzene          | 1 | 92.6342 | 90.6183 | 2.2  | 55  |
| N-Octadecane               | 1 | 77.9372 | 80.5188 | 3.3  | 20  |
| Pentachlorophenol          | 1 | 99.9717 | 97.7678 | 2.2  | 86  |
| Phenanthrene               | 1 | 88.9241 | 87.0894 | 2.1  | 39  |
| Anthracene                 | 1 | 92.0549 | 88.5778 | 3.8  | 66  |
| Carbazole                  | 1 | 98.5842 | 98.0528 | 0.54 | 20  |
| Di-n-butylphthalate        | 1 | 87.89   | 83.6981 | 4.9  | 47  |
| Fluoranthene               | 1 | 91.0675 | 88.1544 | 3.3  | 66  |
| Pyrene                     | 1 | 96.823  | 94.7395 | 2.2  | 49  |
| Benzidine                  | 1 | 25.6712 | 20.4431 | 23 * | 20  |
| Butylbenzylphthalate       | 1 | 90.5018 | 85.8754 | 5.2  | 60  |
| 3,3'-Dichlorobenzidine     | 1 | 87.6906 | 83.0334 | 5.5  | 108 |
| Benzo[a]anthracene         | 1 | 94.1764 | 89.8715 | 4.7  | 53  |
| Chrysene                   | 1 | 87.0349 | 84.295  | 3.2  | 87  |
| bis(2-Ethylhexyl)phthalate | 1 | 84.5013 | 80.3978 | 5    | 82  |
| Di-n-octylphthalate        | 1 | 82.2926 | 80.2598 | 2.5  | 69  |
| Benzo[b]fluoranthene       | 1 | 97.9836 | 97.6704 | 0.32 | 71  |
| Benzo[k]fluoranthene       | 1 | 99.8666 | 95.7484 | 4.2  | 63  |
| Benzo[a]pyrene             | 1 | 89.5215 | 86.0635 | 3.9  | 72  |
| Indeno[1,2,3-cd]pyrene     | 1 | 91.5163 | 89.8322 | 1.9  | 99  |
| Dibenzo[a,h]anthracene     | 1 | 90.6074 | 90.1092 | 0.55 | 126 |
| Benzo[g,h,i]perylene       | 1 | 90.1772 | 87.6259 | 2.9  | 97  |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07161-001  
 Data File: 5M105927.D  
 Acq On : 10/23/18 10:21

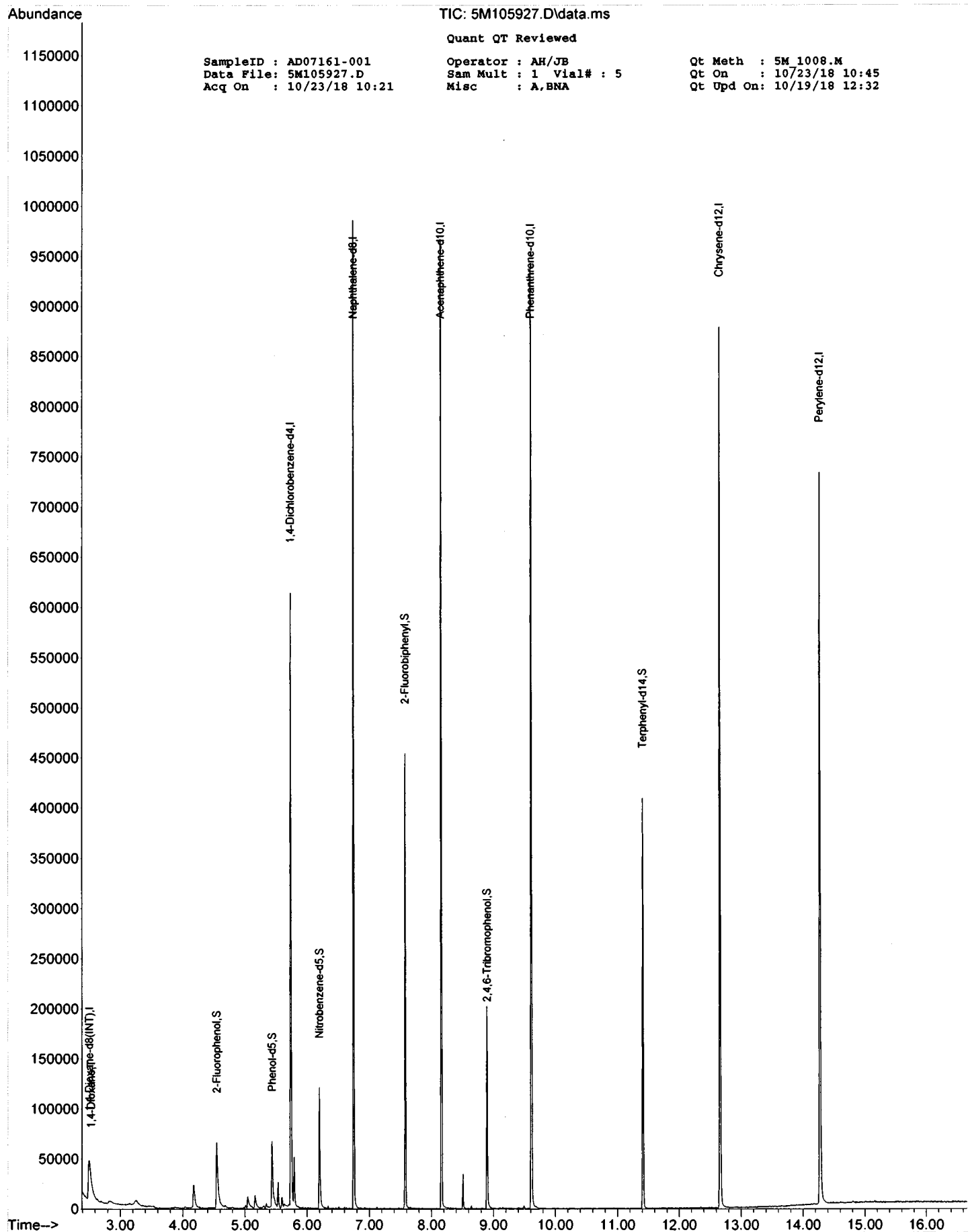
Operator : AH/JB  
 Sam Mult : 1 Vial# : 5  
 Misc : A,BNA

Qt Meth : 5M\_1008.M  
 Qt On : 10/23/18 10:45  
 Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                    | R.T.   | QIon | Response   | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|------------|--------|-------|----------|
| Internal Standards          |        |      |            |        |       |          |
| 7) 1,4-Dioxane-d8 (INT)     | 2.505  | 96   | 52520      | 40.00  | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4  | 5.737  | 152  | 96344      | 40.00  | ng    | 0.00     |
| 31) Naphthalene-d8          | 6.747  | 136  | 351855     | 40.00  | ng    | 0.00     |
| 50) Acenaphthene-d10        | 8.157  | 164  | 205521     | 40.00  | ng    | 0.00     |
| 77) Phenanthrene-d10        | 9.610  | 188  | 354822     | 40.00  | ng    | 0.00     |
| 91) Chrysene-d12            | 12.661 | 240  | 317341     | 40.00  | ng    | 0.00     |
| 103) Perylene-d12           | 14.274 | 264  | 262415     | 40.00  | ng    | 0.00     |
| System Monitoring Compounds |        |      |            |        |       |          |
| 11) 2-Fluorophenol          | 4.546  | 112  | 37791      | 13.86  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 13.86% |       |          |
| 16) Phenol-d5               | 5.438  | 99   | 38265      | 9.10   | ng    | 0.01     |
| Spiked Amount 100.000       |        |      | Recovery = | 9.10%  |       |          |
| 32) Nitrobenzene-d5         | 6.196  | 128  | 18396      | 17.72  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 35.44% |       |          |
| 55) 2-Fluorobiphenyl        | 7.580  | 172  | 127870     | 19.45  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 38.90% |       |          |
| 80) 2,4,6-Tribromophenol    | 8.900  | 330  | 17574      | 27.70  | ng    | 0.00     |
| Spiked Amount 100.000       |        |      | Recovery = | 27.70% |       |          |
| 94) Terphenyl-d14           | 11.411 | 244  | 120873     | 23.81  | ng    | 0.00     |
| Spiked Amount 50.000        |        |      | Recovery = | 47.62% |       |          |
| Target Compounds            |        |      |            |        |       |          |
| 8) 1,4-Dioxane              | 2.532  | 88   | 960        | 0.7316 | ng    | 21       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD07161-001(MS)  
Data File: 5M105928.D  
Acq On : 10/23/18 10:45

Operator : AH/JB  
Sam Mult : 1 Vial# : 6  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/23/18 11:21  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-23-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                      | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|-------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards            |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)       | 2.505  | 96   | 52526      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4    | 5.737  | 152  | 94175      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8            | 6.747  | 136  | 349064     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10          | 8.162  | 164  | 201461     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10          | 9.615  | 188  | 340989     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12              | 12.666 | 240  | 335379     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12             | 14.279 | 264  | 269230     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds   |        |      |            |          |       |          |
| 11) 2-Fluorophenol            | 4.540  | 112  | 135671     | 49.75    | ng    | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery = | 49.75%   |       |          |
| 16) Phenol-d5                 | 5.427  | 99   | 204646     | 48.67    | ng    | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery = | 48.67%   |       |          |
| 32) Nitrobenzene-d5           | 6.196  | 128  | 28554      | 27.72    | ng    | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery = | 55.44%   |       |          |
| 55) 2-Fluorobiphenyl          | 7.580  | 172  | 171495     | 26.61    | ng    | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery = | 53.22%   |       |          |
| 80) 2,4,6-Tribromophenol      | 8.900  | 330  | 40186      | 62.89    | ng    | 0.00     |
| Spiked Amount 100.000         |        |      | Recovery = | 62.89%   |       |          |
| 94) Terphenyl-d14             | 11.410 | 244  | 186478     | 34.76    | ng    | 0.00     |
| Spiked Amount 50.000          |        |      | Recovery = | 69.52%   |       |          |
| Target Compounds              |        |      |            |          |       |          |
| 8) 1,4-Dioxane                | 2.537  | 88   | 106570     | 79.0500  | ng    | 87       |
| 9) Pyridine                   | 3.012  | 79   | 142336     | 42.8366  | ng    | 72       |
| 10) N-Nitrosodimethylamine    | 2.932  | 74   | 140488     | 74.2596  | ng    | 79       |
| 12) Benzaldehyde              | 5.368  | 77   | 219730     | 138.2068 | ng    | 80       |
| 13) Aniline                   | 5.459  | 93   | 298275m    | 66.4807  | ng    |          |
| 14) Pentachloroethane         | 5.497  | 117  | 91952      | 87.7050  | ng    | 78       |
| 15) bis(2-Chloroethyl) ether  | 5.518  | 93   | 253663     | 77.0152  | ng    | 83       |
| 17) Phenol                    | 5.438  | 94   | 338936     | 76.0985  | ng    | 85       |
| 18) 2-Chlorophenol            | 5.561  | 128  | 272973     | 86.9840  | ng    | 81       |
| 19) N-Decane                  | 5.593  | 57   | 273403     | 75.8828  | ng    | 89       |
| 20) 1,3-Dichlorobenzene       | 5.689  | 146  | 256531     | 72.8177  | ng    | 96       |
| 22) 1,4-Dichlorobenzene       | 5.753  | 146  | 265139     | 75.3521  | ng    | 97       |
| 23) 1,2-Dichlorobenzene       | 5.876  | 146  | 251671     | 76.9314  | ng    | 99       |
| 24) Benzyl alcohol            | 5.860  | 108  | 193283     | 100.2758 | ng    | 72       |
| 25) bis(2-chloroisopropyl)... | 5.967  | 45   | 309676     | 69.7337  | ng    | 100      |
| 26) 2-Methylphenol            | 5.951  | 108  | 260033     | 91.9522  | ng    | 96       |
| 27) Acetophenone              | 6.073  | 105  | 411719     | 99.8858  | ng    | 80       |
| 28) Hexachloroethane          | 6.148  | 117  | 97672      | 74.7076  | ng    | 83       |
| 29) N-Nitroso-di-n-propyla... | 6.073  | 70   | 168141     | 76.4543  | ng    | 73       |
| 30) 3&4-Methylphenol          | 6.073  | 108  | 258110     | 86.7057  | ng    | 85       |
| 33) Nitrobenzene              | 6.212  | 77   | 267864     | 83.2033  | ng    | 78       |
| 34) Isophorone                | 6.394  | 82   | 475708     | 85.3608  | ng    | 90       |
| 35) 2-Nitrophenol             | 6.458  | 139  | 152819     | 93.5174  | ng    | 88       |
| 36) 2,4-Dimethylphenol        | 6.485  | 107  | 259651     | 80.9145  | ng    | 95       |
| 37) Benzoic Acid              | 6.576  | 105  | 70846m     | 38.4370  | ng    |          |
| 38) bis(2-Chloroethoxy)met... | 6.560  | 93   | 291416     | 80.3537  | ng    | 96       |
| 39) 2,4-Dichlorophenol        | 6.640  | 162  | 234466     | 91.7772  | ng    | 86       |
| 40) 1,2,4-Trichlorobenzene    | 6.704  | 180  | 219549     | 80.8283  | ng    | 98       |
| 41) Naphthalene               | 6.763  | 128  | 747138     | 80.0422  | ng    | 99       |
| 42) 4-Chloroaniline           | 6.805  | 127  | 319498     | 103.1922 | ng    | 92       |
| 43) Hexachlorobutadiene       | 6.848  | 225  | 120514     | 82.8454  | ng    | 96       |
| 44) Caprolactam               | 7.094  | 113  | 100398     | 99.4056  | ng    | 70       |
| 45) 4-Chloro-3-methylphenol   | 7.169  | 107  | 243563     | 93.8997  | ng    | 87       |
| 46) 2-Methylnaphthalene       | 7.297  | 142  | 601831     | 100.3154 | ng    | 100      |
| 47) 1-Methylnaphthalene       | 7.372  | 142  | 616116     | 104.4040 | ng    | 93       |
| 49) 1,1'-Biphenyl             | 7.665  | 154  | 629447     | 89.4267  | ng    | 95       |
| 51) 1,2,4,5-Tetrachloroben... | 7.425  | 216  | 291735     | 104.4884 | ng    | 97       |
| 52) Hexachlorocyclopentadiene | 7.414  | 237  | 85128      | 78.9205  | ng    | 99       |
| 53) 2,4,6-Trichlorophenol     | 7.516  | 196  | 162733     | 95.9188  | ng    | 98       |
| 54) 2,4,5-Trichlorophenol     | 7.553  | 196  | 172760     | 95.8201  | ng    | 98       |
| 56) 2-Chloronaphthalene       | 7.687  | 162  | 472923     | 87.2742  | ng    | 92       |
| 57) 1,4-Dimethylnaphthalene   | 7.965  | 156  | 377957     | 83.1617  | ng    | 89       |
| 59) Diphenyl Ether            | 7.746  | 170  | 427467     | 106.3235 | ng    | 83       |
| 60) 2-Nitroaniline            | 7.772  | 65   | 218143     | 97.8076  | ng    | 56       |
| 61) Coumarin                  | 7.954  | 146  | 202438     | 97.0873  | ng    | 73       |
| 62) Acenaphthylene            | 8.039  | 152  | 770286     | 94.5488  | ng    | 99       |
| 63) Dimethylphthalate         | 7.911  | 163  | 539949     | 88.9533  | ng    | 99       |
| 64) 2,6-Dinitrotoluene        | 7.970  | 165  | 116543     | 82.6502  | ng    | 71       |
| 65) Acenaphthene              | 8.189  | 153  | 500170     | 89.1847  | ng    | 96       |
| 66) 3-Nitroaniline            | 8.125  | 138  | 171193     | 114.4031 | ng    | 73       |
| 67) 2,4-Dinitrophenol         | 8.216  | 184  | 66471      | 97.1961  | ng    | 45       |

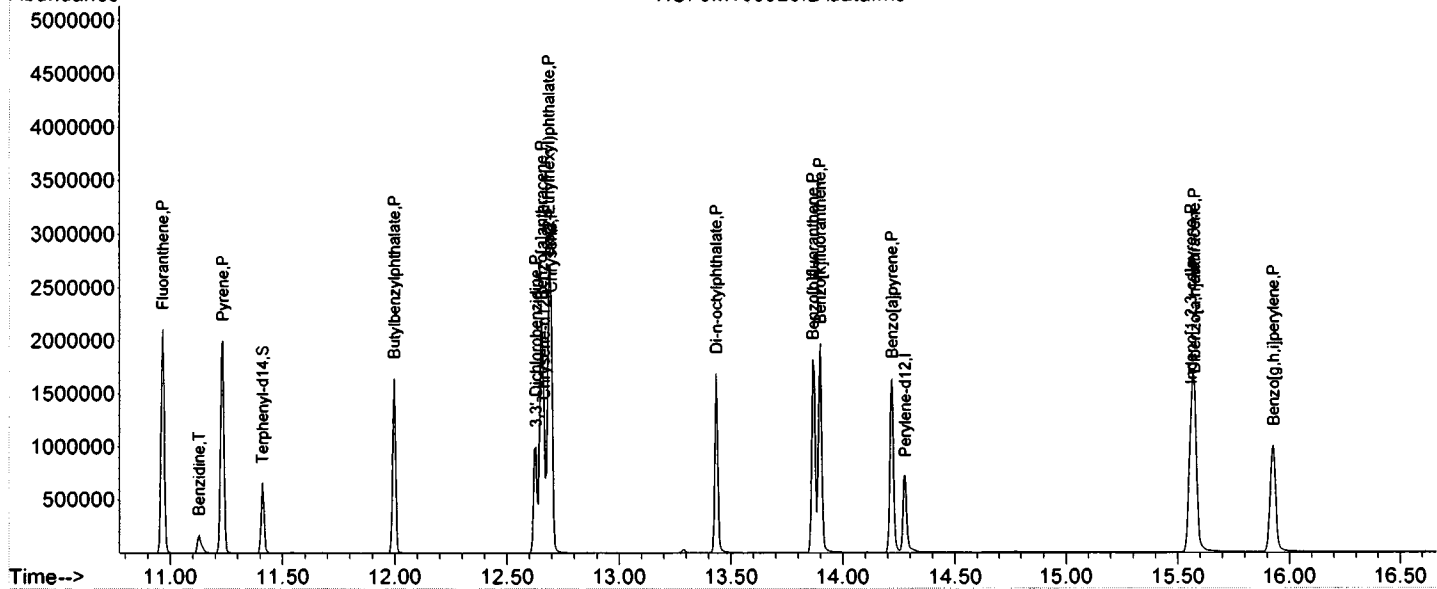
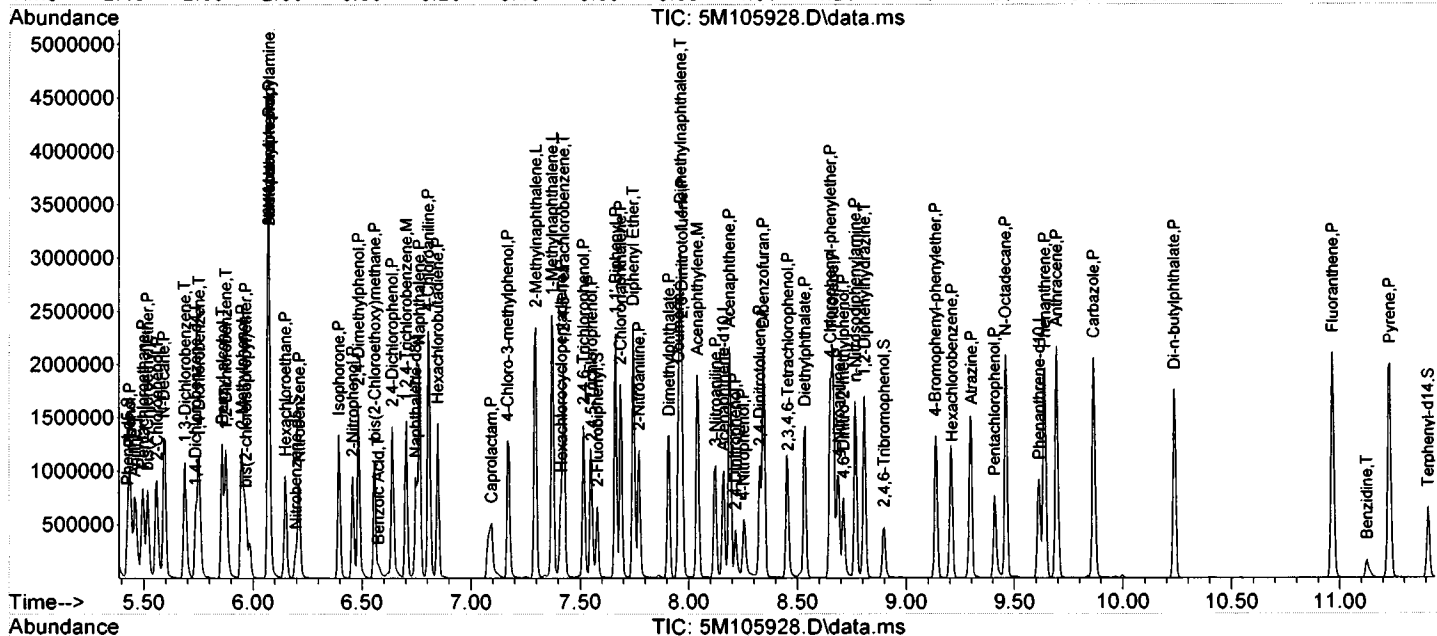
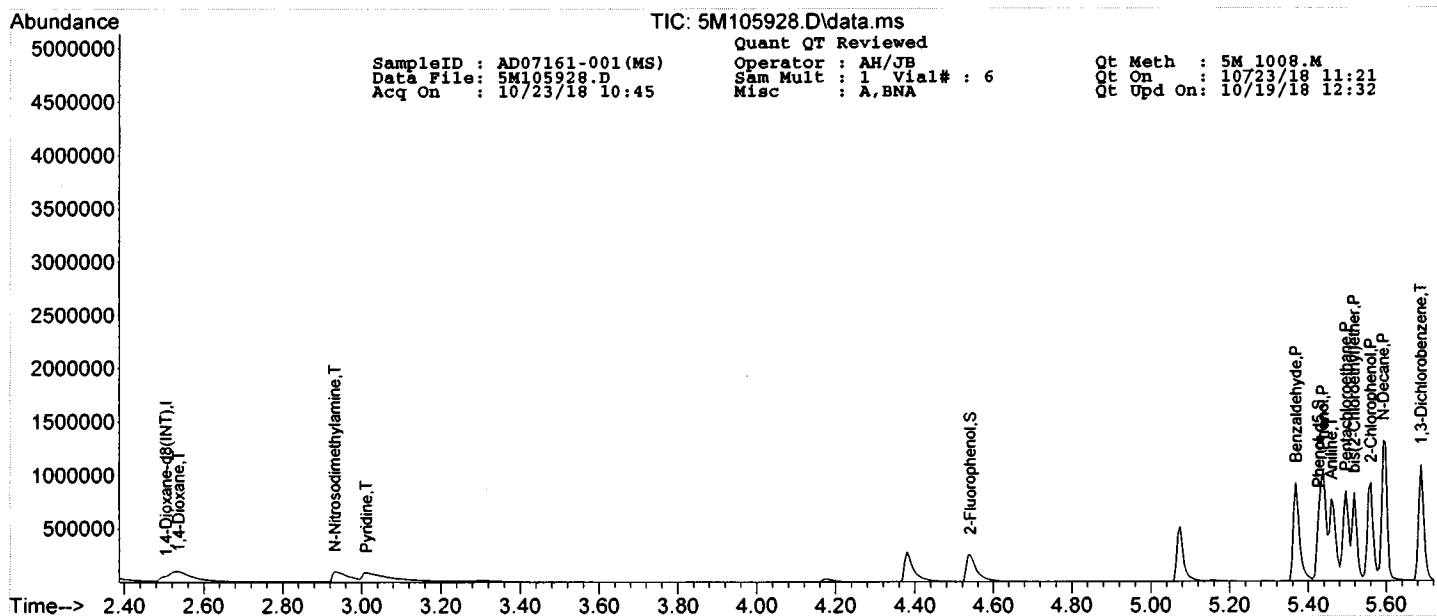
## Quantitation Report (QT Reviewed)

SampleID : AD07161-001(MS) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105928.D Sam Mult : 1 Vial# : 6 Qt On : 10/23/18 11:21  
 Acq On : 10/23/18 10:45 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 68) Dibenzofuran               | 8.344  | 168  | 810630   | 99.8598  | ng    | 89       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 167095   | 87.1642  | ng    | 70       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 87980    | 75.3343  | ng    | 94       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.456  | 232  | 137515   | 89.0021  | ng    | 86       |
| 72) Fluorene                   | 8.664  | 166  | 547006   | 88.3520  | ng    | 100      |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 248987   | 88.6811  | ng    | 83       |
| 74) Diethylphthalate           | 8.536  | 149  | 518360   | 86.2868  | ng    | 96       |
| 75) 4-Nitroaniline             | 8.691  | 138  | 185817   | 102.1912 | ng    | 76       |
| 76) Atrazine                   | 9.300  | 200  | 176856   | 96.9905  | ng    | 95       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 102530   | 106.8505 | ng    | 58       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 379864   | 71.3249  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 649685   | 85.5388  | ng    | 87       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 146693   | 91.4732  | ng    | 88       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 139582   | 90.6183  | ng    | 70       |
| 84) N-Octadecane               | 9.460  | 57   | 367728   | 80.5188  | ng    | 84       |
| 85) Pentachlorophenol          | 9.407  | 266  | 78330    | 97.7678  | ng    | 97       |
| 86) Phenanthrene               | 9.642  | 178  | 805439   | 87.0894  | ng    | 100      |
| 87) Anthracene                 | 9.696  | 178  | 821930   | 88.5778  | ng    | 99       |
| 88) Carbazole                  | 9.866  | 167  | 844015   | 98.0528  | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 915427   | 83.6981  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 872817   | 88.1544  | ng    | 95       |
| 92) Pyrene                     | 11.234 | 202  | 905953   | 94.7395  | ng    | 89       |
| 93) Benzidine                  | 11.127 | 184  | 69524    | 20.4431  | ng    | 87       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 378034   | 85.8754  | ng    | 76       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 219796   | 83.0334  | ng    | 97       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 815025   | 89.8715  | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 732104   | 84.2950  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 526162   | 80.3978  | ng    | 94       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 797939   | 80.2598  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.868 | 252  | 740239   | 97.6704  | ng    | 97       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 730177m  | 95.7484  | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 662168   | 86.0635  | ng    | 94       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 757455   | 89.8322  | ng    | 96       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 656281   | 90.1092  | ng    | 92       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 624370   | 87.6259  | ng    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





SampleID : AD07161-001(MSD)  
Data File: 5M105929.D  
Acq On : 10/23/18 11:08

Operator : AH/JB  
Sam Mult : 1 Vial# : 7  
Misc : A,BNA

Qt Meth : 5M\_1008.M  
Qt On : 10/23/18 12:49  
Qt Upd On: 10/19/18 12:32

Data Path : G:\GCMSData\2018\GCMS\_5\Data\10-23-18\  
Qt Path : G:\GCMSData\2018\GCMS\_5\MethodQt\  
Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response   | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|------------|----------|-------|----------|
| Internal Standards             |        |      |            |          |       |          |
| 7) 1,4-Dioxane-d8 (INT)        | 2.499  | 96   | 54034      | 40.00    | ng    | 0.00     |
| 21) 1,4-Dichlorobenzene-d4     | 5.737  | 152  | 99212      | 40.00    | ng    | 0.00     |
| 31) Naphthalene-d8             | 6.747  | 136  | 363582     | 40.00    | ng    | 0.00     |
| 50) Acenaphthene-d10           | 8.162  | 164  | 215321     | 40.00    | ng    | 0.00     |
| 77) Phenanthrene-d10           | 9.615  | 188  | 353822     | 40.00    | ng    | 0.00     |
| 91) Chrysene-d12               | 12.666 | 240  | 352868     | 40.00    | ng    | 0.00     |
| 103) Perylene-d12              | 14.279 | 264  | 287142     | 40.00    | ng    | 0.00     |
| System Monitoring Compounds    |        |      |            |          |       |          |
| 11) 2-Fluorophenol             | 4.540  | 112  | 113073     | 40.31    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 40.31%   |       |          |
| 16) Phenol-d5                  | 5.427  | 99   | 174843     | 40.42    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 40.42%   |       |          |
| 32) Nitrobenzene-d5            | 6.196  | 128  | 27690      | 25.81    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 51.62%   |       |          |
| 55) 2-Fluorobiphenyl           | 7.580  | 172  | 159228     | 23.12    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 46.24%   |       |          |
| 80) 2,4,6-Tribromophenol       | 8.899  | 330  | 39525      | 59.85    | ng    | 0.00     |
| Spiked Amount 100.000          |        |      | Recovery = | 59.85%   |       |          |
| 94) Terphenyl-d14              | 11.410 | 244  | 181596     | 32.17    | ng    | 0.00     |
| Spiked Amount 50.000           |        |      | Recovery = | 64.34%   |       |          |
| Target Compounds               |        |      |            |          |       |          |
| 8) 1,4-Dioxane                 | 2.537  | 88   | 94349m     | 68.2816  | ng    | Qvalue   |
| 9) Pyridine                    | 3.007  | 79   | 151592     | 44.3490  | ng    | 74       |
| 10) N-Nitrosodimethylamine     | 2.932  | 74   | 139773     | 71.8197  | ng    | 79       |
| 12) Benzaldehyde               | 5.368  | 77   | 204965     | 125.3219 | ng    | 78       |
| 13) Aniline                    | 5.459  | 93   | 319712     | 69.1928  | ng    | 43       |
| 14) Pentachloroethane          | 5.497  | 117  | 87092      | 80.7511  | ng    | 78       |
| 15) bis(2-Chloroethyl) ether   | 5.518  | 93   | 254757     | 75.1887  | ng    | 84       |
| 17) Phenol                     | 5.438  | 94   | 341571     | 74.6329  | ng    | 85       |
| 18) 2-Chlorophenol             | 5.561  | 128  | 252219     | 78.1276  | ng    | 81       |
| 19) N-Decane                   | 5.593  | 57   | 252145     | 68.0295  | ng    | 88       |
| 20) 1,3-Dichlorobenzene        | 5.689  | 146  | 250460     | 69.1102  | ng    | 96       |
| 22) 1,4-Dichlorobenzene        | 5.753  | 146  | 262301     | 70.7609  | ng    | 98       |
| 23) 1,2-Dichlorobenzene        | 5.876  | 146  | 247875     | 71.9242  | ng    | 97       |
| 24) Benzyl alcohol             | 5.860  | 108  | 188372     | 92.7663  | ng    | 70       |
| 25) bis(2-chloroisopropyl) ... | 5.967  | 45   | 316997     | 67.7582  | ng    | 100      |
| 26) 2-Methylphenol             | 5.951  | 108  | 258748     | 86.8524  | ng    | 97       |
| 27) Acetophenone               | 6.073  | 105  | 409388     | 94.2778  | ng    | 78       |
| 28) Hexachloroethane           | 6.148  | 117  | 95643      | 69.4415  | ng    | 84       |
| 29) N-Nitroso-di-n-propyla...  | 6.073  | 70   | 177102     | 76.4395  | ng    | 73       |
| 30) 3&4-Methylphenol           | 6.073  | 108  | 256184     | 81.1780  | ng    | 85       |
| 33) Nitrobenzene               | 6.212  | 77   | 277413     | 82.7286  | ng    | 79       |
| 34) Isophorone                 | 6.394  | 82   | 514974     | 88.7169  | ng    | 90       |
| 35) 2-Nitrophenol              | 6.458  | 139  | 152283     | 89.8817  | ng    | 89       |
| 36) 2,4-Dimethylphenol         | 6.485  | 107  | 262141     | 78.5171  | ng    | 94       |
| 37) Benzoic Acid               | 6.576  | 105  | 80985m     | 41.4355  | ng    |          |
| 38) bis(2-Chloroethoxy)met...  | 6.560  | 93   | 315008     | 83.3905  | ng    | 96       |
| 39) 2,4-Dichlorophenol         | 6.640  | 162  | 235666     | 88.7551  | ng    | 88       |
| 40) 1,2,4-Trichlorobenzene     | 6.704  | 180  | 221099     | 78.1487  | ng    | 97       |
| 41) Naphthalene                | 6.763  | 128  | 766341     | 78.8212  | ng    | 99       |
| 42) 4-Chloroaniline            | 6.805  | 127  | 322883     | 99.6196  | ng    | 91       |
| 43) Hexachlorocyclopentadiene  | 6.848  | 225  | 123107     | 81.2486  | ng    | 95       |
| 44) Caprolactam                | 7.094  | 113  | 104302     | 99.1742  | ng    | 68       |
| 45) 4-Chloro-3-methylphenol    | 7.169  | 107  | 250526     | 92.8232  | ng    | 84       |
| 46) 2-Methylnaphthalene        | 7.297  | 142  | 606637     | 97.0789  | ng    | 99       |
| 47) 1-Methylnaphthalene        | 7.372  | 142  | 634869     | 103.2860 | ng    | 94       |
| 49) 1,1'-Biphenyl              | 7.665  | 154  | 636784     | 86.8566  | ng    | 96       |
| 51) 1,2,4,5-Tetrachloroben...  | 7.425  | 216  | 287653     | 96.3947  | ng    | 97       |
| 52) Hexachlorocyclopentadiene  | 7.409  | 237  | 94238      | 81.2069  | ng    | 98       |
| 53) 2,4,6-Trichlorophenol      | 7.516  | 196  | 163893     | 90.7320  | ng    | 99       |
| 54) 2,4,5-Trichlorophenol      | 7.548  | 196  | 176224     | 91.8772  | ng    | 98       |
| 56) 2-Chloronaphthalene        | 7.687  | 162  | 508197     | 87.7470  | ng    | 93       |
| 57) 1,4-Dimethylnaphthalene    | 7.965  | 156  | 402169     | 82.7931  | ng    | 91       |
| 59) Diphenyl Ether             | 7.746  | 170  | 433306     | 100.8384 | ng    | 84       |
| 60) 2-Nitroaniline             | 7.772  | 65   | 226433     | 95.1044  | ng    | 56       |
| 61) Coumarin                   | 7.954  | 146  | 220095     | 98.7609  | ng    | 76       |
| 62) Acenaphthylene             | 8.039  | 152  | 822187     | 94.4233  | ng    | 99       |
| 63) Dimethylphthalate          | 7.911  | 163  | 586348     | 90.3794  | ng    | 99       |
| 64) 2,6-Dinitrotoluene         | 7.970  | 165  | 132158     | 87.5912  | ng    | 70       |
| 65) Acenaphthene               | 8.189  | 153  | 517807     | 86.3864  | ng    | 97       |
| 66) 3-Nitroaniline             | 8.125  | 138  | 177426     | 110.7095 | ng    | 73       |
| 67) 2,4-Dinitrophenol          | 8.216  | 184  | 72120      | 98.3072  | ng    | 45       |

## Quantitation Report (QT Reviewed)

SampleID : AD07161-001(MSD) Operator : AH/JB Qt Meth : 5M\_1008.M  
 Data File: 5M105929.D Sam Mult : 1 Vial# : 7 Qt On : 10/23/18 12:49  
 Acq On : 10/23/18 11:08 Misc : A,BNA Qt Upd On: 10/19/18 12:32

Data Path : G:\GcMsData\2018\GCMS\_5\Data\10-23-18\  
 Qt Path : G:\GCMSDATA\2018\GCMS\_5\MethodQt\  
 Qt Resp Via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 68) Dibenzofuran               | 8.344  | 168  | 834207   | 96.1558  | ng    | 88       |
| 69) 2,4-Dinitrotoluene         | 8.328  | 165  | 181755   | 88.6130  | ng    | 70       |
| 70) 4-Nitrophenol              | 8.253  | 65   | 90496    | 72.8742  | ng    | 93       |
| 71) 2,3,4,6-Tetrachlorophenol  | 8.451  | 232  | 140758   | 85.4238  | ng    | 86       |
| 72) Fluorene                   | 8.664  | 166  | 595586   | 90.0064  | ng    | 99       |
| 73) 4-Chlorophenyl-phenyle...  | 8.654  | 204  | 267015   | 88.9804  | ng    | 85       |
| 74) Diethylphthalate           | 8.536  | 149  | 582472   | 90.7178  | ng    | 98       |
| 75) 4-Nitroaniline             | 8.691  | 138  | 188436   | 97.3619  | ng    | 77       |
| 76) Atrazine                   | 9.300  | 200  | 187454   | 96.2728  | ng    | 97       |
| 78) 4,6-Dinitro-2-methylph...  | 8.713  | 198  | 108511   | 108.4842 | ng    | 56       |
| 79) n-Nitrosodiphenylamine     | 8.766  | 169  | 411819   | 74.5203  | ng    | 99       |
| 81) 1,2-Diphenylhydrazine      | 8.809  | 77   | 702036   | 89.0789  | ng    | 87       |
| 82) 4-Bromophenyl-phenylether  | 9.135  | 248  | 157392   | 94.5851  | ng    | 87       |
| 83) Hexachlorobenzene          | 9.209  | 284  | 148057   | 92.6342  | ng    | 71       |
| 84) N-Octadecane               | 9.460  | 57   | 369219   | 77.9372  | ng    | 85       |
| 85) Pentachlorophenol          | 9.407  | 266  | 83678    | 99.9717  | ng    | 98       |
| 86) Phenanthrene               | 9.642  | 178  | 853358   | 88.9241  | ng    | 100      |
| 87) Anthracene                 | 9.695  | 178  | 886342   | 92.0549  | ng    | 99       |
| 88) Carbazole                  | 9.866  | 167  | 880525   | 98.5842  | ng    | 98       |
| 89) Di-n-butylphthalate        | 10.235 | 149  | 999912   | 87.8900  | ng    | 98       |
| 90) Fluoranthene               | 10.967 | 202  | 937888   | 91.0675  | ng    | 95       |
| 92) Pyrene                     | 11.234 | 202  | 974158   | 96.8230  | ng    | 89       |
| 93) Benzidine                  | 11.127 | 184  | 92007    | 25.6712  | ng    | 85       |
| 97) Butylbenzylphthalate       | 11.998 | 149  | 422094   | 90.5018  | ng    | 75       |
| 99) 3,3'-Dichlorobenzidine     | 12.628 | 252  | 243760   | 87.6906  | ng    | 96       |
| 100) Benzo[a]anthracene        | 12.655 | 228  | 898602   | 94.1764  | ng    | 99       |
| 101) Chrysene                  | 12.698 | 228  | 795318   | 87.0349  | ng    | 99       |
| 102) bis(2-Ethylhexyl)phtha... | 12.687 | 149  | 582625   | 84.5013  | ng    | 96       |
| 104) Di-n-octylphthalate       | 13.435 | 149  | 876234   | 82.2926  | ng    | 100      |
| 105) Benzo[b]fluoranthene      | 13.873 | 252  | 792019   | 97.9836  | ng    | 94       |
| 106) Benzo[k]fluoranthene      | 13.900 | 252  | 812251m  | 99.8666  | ng    |          |
| 107) Benzo[a]pyrene            | 14.220 | 252  | 738732   | 89.5215  | ng    | 95       |
| 108) Indeno[1,2,3-cd]pyrene    | 15.561 | 276  | 825303   | 91.5163  | ng    | 94       |
| 109) Dibenzo[a,h]anthracene    | 15.577 | 278  | 704295   | 90.6074  | ng    | 93       |
| 110) Benzo[g,h,i]perylene      | 15.930 | 276  | 688129   | 90.1772  | ng    | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



**GC/MS Base Neutral/Acid Extractable Data  
Logbook Data**

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-269657



| Prepared By: Hamid, Akmal                     |                            | Department: Organics     | ApprovedBy: akmal     |            |
|-----------------------------------------------|----------------------------|--------------------------|-----------------------|------------|
| Description: 8270 EXTRA MIX#1(2nd Source)(DAN |                            | BatchNumber:             | ApproveDate: 12/18/17 |            |
| Prep Date: 12/18/2017                         |                            | Concentration: 10000 ppm | Checked: Yes          |            |
| Expiration Date: 12/18/2018                   |                            | Final Volume: 25 ml      |                       |            |
| Veritech Lot# /Rec#                           | Lot Description            | Amount Used              | Conc of Std           | Final Conc |
| 9154                                          | Caprolactum                | .25 g                    | NEAT neat             | 10000 ppm  |
| 9155                                          | 1,2,4,5-Tetrachlorobenzene | .25 g                    | NEAT neat             | 10000 ppm  |
| 10779                                         | Atrazine                   | .25 g                    | Neat neat             | 10000 ppm  |
| 9402                                          | ACETOPHENONE               | .25 g                    | NEAT neat             | 10000 ppm  |
| 9149                                          | Diphenyl Ether             | .25 g                    | NEAT neat             | 10000 ppm  |
| 10781                                         | 1-Methylnaphthalene        | .2626 g                  | 95.2% neat            | 10000 ppm  |
| 10780                                         | 1,4-Dioxane                | .25 g                    | NEAT neat             | 10000 ppm  |
| 11299                                         | Acetone                    | 25 ml                    | neta neta             |            |

## Veritech Lot Number: V-269658



| Prepared By: Hamid, Akmal     |                 | Department: Organics     | ApprovedBy: akmal     |            |
|-------------------------------|-----------------|--------------------------|-----------------------|------------|
| Description: Benzaldehyde Std |                 | BatchNumber:             | ApproveDate: 12/18/17 |            |
| Prep Date: 12/18/2017         |                 | Concentration: 10000 ppm | Checked: Yes          |            |
| Expiration Date: 12/18/2018   |                 | Final Volume: 25 ml      |                       |            |
| Veritech Lot# /Rec#           | Lot Description | Amount Used              | Conc of Std           | Final Conc |
| 9150                          | Benzaldehyde    | .25 g                    | NEAT neat             | 10000 ppm  |
| 11299                         | Acetone         | 25 ml                    | neta neta             |            |

## Veritech Lot Number: V-269839



| Prepared By: Hamid, Akmal             |                            | Department: Organics     | ApprovedBy: jean      |            |
|---------------------------------------|----------------------------|--------------------------|-----------------------|------------|
| Description: 8270 EXTRA MIX#1(DANGER) |                            | BatchNumber:             | ApproveDate: 02/27/18 |            |
| Prep Date: 12/18/2017                 |                            | Concentration: 10000 ppm | Checked: Yes          |            |
| Expiration Date: 12/18/2018           |                            | Final Volume: 10 ml      |                       |            |
| Veritech Lot# /Rec#                   | Lot Description            | Amount Used              | Conc of Std           | Final Conc |
| 9154                                  | Caprolactum                | .1 g                     | NEAT neat             | 10000 ppm  |
| 9155                                  | 1,2,4,5-Tetrachlorobenzene | .1 g                     | NEAT neat             | 10000 ppm  |
| 10779                                 | Atrazine                   | .1 g                     | Neat neat             | 10000 ppm  |
| 9402                                  | ACETOPHENONE               | .1 g                     | NEAT neat             | 10000 ppm  |
| 9149                                  | Diphenyl Ether             | .1 g                     | NEAT neat             | 10000 ppm  |
| 10780                                 | 1,4-Dioxane                | .1 g                     | NEAT neat             | 10000 ppm  |
| 10789                                 | methylene chloride         | 10 ml                    | neat neat             |            |

## Veritech Lot Number: V-270853



| Prepared By: Hamid, Akmal   |                    | Department: Organics    | ApprovedBy: jean      |            |
|-----------------------------|--------------------|-------------------------|-----------------------|------------|
| Description: BNA-Pest Mix   |                    | BatchNumber:            | ApproveDate: 02/27/18 |            |
| Prep Date: 1/5/2018         |                    | Concentration: 5000 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018 |                    | Final Volume: 10 ml     |                       |            |
| Veritech Lot# /Rec#         | Lot Description    | Amount Used             | Conc of Std           | Final Conc |
| 11366                       | 4,4'-DDD           | .05 g                   | NEAT neat             | 5000 ppm   |
| 7908                        | 4,4'-DDE           | .05 g                   | neat neat             | 5000 ppm   |
| 9939                        | 4,4'-DDT           | .05 g                   | neat neat             | 5000 ppm   |
| 10789                       | methylene chloride | 10 ml                   | neat neat             |            |

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-280889



| Prepared By: Hamid, Akmal      |                         | Department: Organics    | ApprovedBy: akmal     |            |
|--------------------------------|-------------------------|-------------------------|-----------------------|------------|
| Description: BNA Internal Std. |                         | BatchNumber:            | ApproveDate: 06/01/18 |            |
| Prep Date: 6/1/2018            |                         | Concentration: 2000 ppm | Checked: Yes          |            |
| Expiration Date: 6/1/2019      |                         | Final Volume: 250 ml    |                       |            |
| Veritech Lot# /Rec#            | Lot Description         | Amount Used             | Conc of Std           | Final Conc |
| 9325                           | Naphthlene,d8           | .5 g                    | NEAT neat             | 2000 ppm   |
| 9326                           | Phenanthrene, d10       | .5 g                    | NEAT neat             | 2000 ppm   |
| 10002                          | Chrysene (D12, 98%)     | .5 g                    | NEAT neat             | 2000 ppm   |
| 10003                          | Perylene (D12, 98%)     | .5 g                    | NEAT neat             | 2000 ppm   |
| 6948                           | 1,4-Dichlorobenzene(D4) | .5 g                    | neat neat             | 2000 ppm   |
| 9329                           | Acenaphthene, d10       | .5 g                    | NEAT neat             | 2000 ppm   |
| 11103                          | 1,4-Dioxane-D8          | .5 g                    | NEAT neat             | 2000 ppm   |
| 10789                          | methylene chloride      | 250 ml                  | neat neat             |            |

## Veritech Lot Number: V-282441



| Prepared By: Bis, Yolanta   |                    | Department: Organics  | ApprovedBy: akmal     |            |
|-----------------------------|--------------------|-----------------------|-----------------------|------------|
| Description: DFTPP Mix      |                    | BatchNumber:          | ApproveDate: 07/05/18 |            |
| Prep Date: 6/26/2018        |                    | Concentration: 50 ppm | Checked: Yes          |            |
| Expiration Date: 12/26/2018 |                    | Final Volume: 1 ml    |                       |            |
| Veritech Lot# /Rec#         | Lot Description    | Amount Used           | Conc of Std           | Final Conc |
| 11490                       | DFTPP              | 20 ul                 | 2500 ppm              | 50 ppm     |
| 11565                       | DDT-Endrin Mix     | 200 ul                | 500 ppm               | 100 ppm    |
| 11035                       | Pentachlorophenol  | 20 ul                 | 5000 ppm              | 100 ppm    |
| 11034                       | Benzidine          | 20 ul                 | 5000 ppm              | 100 ppm    |
| 11729                       | methylene chloride | 740 ul                | neat neat             |            |

## Veritech Lot Number: V-285891



| Prepared By: Hamid, Akmal     |                      | Department: Organics        | ApprovedBy: akmal     |            |
|-------------------------------|----------------------|-----------------------------|-----------------------|------------|
| Description: BNA Surrog. Std. |                      | BatchNumber:                | ApproveDate: 08/18/18 |            |
| Prep Date: 8/18/2018          |                      | Concentration: 1000-2000 pp | Checked: Yes          |            |
| Expiration Date: 8/18/2019    |                      | Final Volume: 1000 ml       |                       |            |
| Veritech Lot# /Rec#           | Lot Description      | Amount Used                 | Conc of Std           | Final Conc |
| 7755                          | 2-Fluorobiphenyl     | 1 g                         | Neat neat             | 1000 ppm   |
| 10573                         | p-Terphenyl-d14      | 1 g                         | NEAT neat             | 1000 ppm   |
| 10521                         | Phenol-2,3,4,5,6-d5  | 2 g                         | NEAT neat             | 2000 ppm   |
| 10572                         | 2,4,6-Tribromophenol | 2 g                         | NEAT neat             | 2000 ppm   |
| 8746                          | Nitrobenzene-d5      | 800 ul                      | NEAT neat             | 1000 ppm   |
| 8747                          | 2-Fluorophenol       | 1.6 ml                      | NEAT neat             | 2000 ppm   |
| 11911                         | Acetone              | 1000 ml                     | neat neat             |            |

## Veritech Lot Number: V-289043



| Prepared By: Hamid, Akmal  |                         | Department: Organics    | ApprovedBy: akmal     |            |
|----------------------------|-------------------------|-------------------------|-----------------------|------------|
| Description: BNA-6 MIX     |                         | BatchNumber:            | ApproveDate: 10/03/18 |            |
| Prep Date: 10/3/2018       |                         | Concentration: 5000 ppm | Checked: Yes          |            |
| Expiration Date: 10/3/2019 |                         | Final Volume: 10 ml     |                       |            |
| Veritech Lot# /Rec#        | Lot Description         | Amount Used             | Conc of Std           | Final Conc |
| 9726                       | Biphenyl                | .05 g                   | Neat neat             | 5000 ppm   |
| 9755                       | Coumarin                | .05 g                   | neat neat             | 5000 ppm   |
| 11200                      | n-Octadecane            | .05 g                   | NEAT neat             | 5000 ppm   |
| 9756                       | Pentachloroethane       | .05 g                   | neat neat             | 5000 ppm   |
| 9435                       | 1,4-Dimethylnaphthalene | .0518 g                 | 95 %                  | 5000 ppm   |
| 11201                      | N-Decane                | .05 g                   | NEAT neat             | 5000 ppm   |
| 12001                      | acetone                 | 10 ml                   | neat neat             |            |

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-289376



| Prepared By: Bis, Yolanta             |                        | Department: Organics   | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|------------------------|-----------------------|------------|
| Description: BNA STOCK Std.A (DANGER) |                        | BatchNumber:           | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 250 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 1.2 ml   |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used            | Conc of Std           | Final Conc |
| 11125                                 | 8270 MegaMix           | 300 ul                 | 1000 ppm              | 250 ppm    |
| 11169                                 | Benzoic Acid           | 150 ul                 | 2000 ppm              | 250 ppm    |
| 11722                                 | EPA TCL Benzidines Mix | 150 ul                 | 2000 ppm              | 250 ppm    |
| V-285891                              | BNA Surrog. Std.       | 150 ul                 | 1000-2000 pp          | 125-250 pp |
| v-270853                              | BNA-Pest Mix           | 60 ul                  | 5000 ppm              | 250 ppm    |
| V-289043                              | BNA-6 MIX              | 60 ul                  | 5000 ppm              | 250 ppm    |
| 10789                                 | methylene chloride     | 330 ul                 | neat neat             |            |

## Veritech Lot Number: V-289382



| Prepared By: Bis, Yolanta             |                        | Department: Organics  | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|-----------------------|-----------------------|------------|
| Description: BNA 10 ppm curve(DANGER) |                        | BatchNumber: B-25853  | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 10 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 100 ul  |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used           | Conc of Std           | Final Conc |
| V-289392                              | BNA STOCK Std.(DANGER) | 5 ul                  | 200 ppm               | 10 ppm     |
| V-280889                              | BNA Internal Std.      | 2 ul                  | 2000 ppm              | 40 ppm     |
| 10789                                 | methylene chloride     | 93 ul                 | neat neat             |            |

## Veritech Lot Number: V-289383



| Prepared By: Bis, Yolanta             |                        | Department: Organics  | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|-----------------------|-----------------------|------------|
| Description: BNA 20 ppm curve(DANGER) |                        | BatchNumber: B-25853  | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 20 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 100 ul  |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used           | Conc of Std           | Final Conc |
| V-289392                              | BNA STOCK Std.(DANGER) | 10 ul                 | 200 ppm               | 20 ppm     |
| V-280889                              | BNA Internal Std.      | 2 ul                  | 2000 ppm              | 40 ppm     |
| 10789                                 | methylene chloride     | 88 ul                 | neat neat             |            |

## Veritech Lot Number: V-289384



| Prepared By: Bis, Yolanta             |                        | Department: Organics  | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|-----------------------|-----------------------|------------|
| Description: BNA 50 ppm curve(DANGER) |                        | BatchNumber: B-25853  | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 50 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 600 ul  |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used           | Conc of Std           | Final Conc |
| V-289392                              | BNA STOCK Std.(DANGER) | 150 ul                | 200 ppm               | 50 ppm     |
| V-280889                              | BNA Internal Std.      | 12 ul                 | 2000 ppm              | 40 ppm     |
| 10789                                 | methylene chloride     | 438 ul                | neat neat             |            |

## Veritech Lot Number: V-289385



| Prepared By: Bis, Yolanta             |                        | Department: Organics  | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|-----------------------|-----------------------|------------|
| Description: BNA 80 ppm curve(DANGER) |                        | BatchNumber: B-25853  | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 80 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 100 ul  |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used           | Conc of Std           | Final Conc |
| V-289392                              | BNA STOCK Std.(DANGER) | 40 ul                 | 200 ppm               | 80 ppm     |
| V-280889                              | BNA Internal Std.      | 2 ul                  | 2000 ppm              | 40 ppm     |
| 10789                                 | methylene chloride     | 58 ul                 | neat neat             |            |

## Veritech Internally Prepared Standard Log

**Veritech Lot Number: V-289386**

| Prepared By: Bis, Yolanta              |                        | Department: Organics   | ApprovedBy: akmal     |            |
|----------------------------------------|------------------------|------------------------|-----------------------|------------|
| Description: BNA 120 ppm curve(DANGER) |                        | BatchNumber: B-25853   | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                   |                        | Concentration: 120 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018            |                        | Final Volume: 100 ul   |                       |            |
| Veritech Lot# /Rec#                    | Lot Description        | Amount Used            | Conc of Std           | Final Conc |
| V-289392                               | BNA STOCK Std.(DANGER) | 60 ul                  | 200 ppm               | 120 ppm    |
| V-280889                               | BNA Internal Std.      | 2 ul                   | 2000 ppm              | 40 ppm     |
| 10789                                  | methylene chloride     | 38 ul                  | neat neat             |            |

**Veritech Lot Number: V-289387**

| Prepared By: Bis, Yolanta              |                        | Department: Organics   | ApprovedBy: akmal     |            |
|----------------------------------------|------------------------|------------------------|-----------------------|------------|
| Description: BNA 160 ppm curve(DANGER) |                        | BatchNumber: B-25853   | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                   |                        | Concentration: 160 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018            |                        | Final Volume: 100 ul   |                       |            |
| Veritech Lot# /Rec#                    | Lot Description        | Amount Used            | Conc of Std           | Final Conc |
| V-289392                               | BNA STOCK Std.(DANGER) | 80 ul                  | 200 ppm               | 160 ppm    |
| V-280889                               | BNA Internal Std.      | 2 ul                   | 2000 ppm              | 40 ppm     |
| 10789                                  | methylene chloride     | 18 ul                  | neat neat             |            |

**Veritech Lot Number: V-289388**

| Prepared By: Bis, Yolanta              |                        | Department: Organics   | ApprovedBy: akmal     |            |
|----------------------------------------|------------------------|------------------------|-----------------------|------------|
| Description: BNA 196 ppm curve(DANGER) |                        | BatchNumber: B-25853   | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                   |                        | Concentration: 196 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018            |                        | Final Volume: 100 ul   |                       |            |
| Veritech Lot# /Rec#                    | Lot Description        | Amount Used            | Conc of Std           | Final Conc |
| V-289392                               | BNA STOCK Std.(DANGER) | 98 ul                  | 200 ppm               | 196 ppm    |
| V-280889                               | BNA Internal Std.      | 2 ul                   | 2000 ppm              | 40 ppm     |
| 10789                                  | methylene chloride     | 0                      | neat neat             |            |

**Veritech Lot Number: V-289389**

| Prepared By: Bis, Yolanta             |                        | Department: Organics  | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|-----------------------|-----------------------|------------|
| Description: BNA 50 ppm curve(DANGER) |                        | BatchNumber: B-25853  | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 50 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 100 ul  |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used           | Conc of Std           | Final Conc |
| V-289392                              | BNA STOCK Std.(DANGER) | 25 ul                 | 200 ppm               | 50 ppm     |
| 10789                                 | methylene chloride     | 75 ul                 | neat neat             |            |

**Veritech Lot Number: V-289390**

| Prepared By: Bis, Yolanta            |                          | Department: Organics | ApprovedBy: akmal     |            |
|--------------------------------------|--------------------------|----------------------|-----------------------|------------|
| Description: BNA 2 ppm curve(DANGER) |                          | BatchNumber: B-25853 | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                 |                          | Concentration: 2 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018          |                          | Final Volume: 100 ul |                       |            |
| Veritech Lot# /Rec#                  | Lot Description          | Amount Used          | Conc of Std           | Final Conc |
| V-289389                             | BNA 50 ppm curve(DANGER) | 4 ul                 | 50 ppm                | 2 ppm      |
| V-280889                             | BNA Internal Std.        | 2 ul                 | 2000 ppm              | 40 ppm     |
| 10789                                | methylene chloride       | 94 ul                | neat neat             |            |



## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-289391



| Prepared By: Bis, Yolanta              |                          | Department: Organics   | ApprovedBy: akmal     |            |
|----------------------------------------|--------------------------|------------------------|-----------------------|------------|
| Description: BNA 0.5 ppm curve(DANGER) |                          | BatchNumber: B-25853   | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                   |                          | Concentration: 0.5 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018            |                          | Final Volume: 100 ul   |                       |            |
| Veritech Lot# /Rec#                    | Lot Description          | Amount Used            | Conc of Std           | Final Conc |
| V-289389                               | BNA 50 ppm curve(DANGER) | 1 ul                   | 50 ppm                | 2 ppm      |
| V-280889                               | BNA Internal Std.        | 2 ul                   | 2000 ppm              | 40 ppm     |
| 10789                                  | methylene chloride       | 97 ul                  | neat neat             |            |

## Veritech Lot Number: V-289392



| Prepared By: Bis, Yolanta           |                          | Department: Organics   | ApprovedBy: akmal     |            |
|-------------------------------------|--------------------------|------------------------|-----------------------|------------|
| Description: BNA STOCK Std.(DANGER) |                          | BatchNumber:           | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                |                          | Concentration: 200 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018         |                          | Final Volume: 500 ul   |                       |            |
| Veritech Lot# /Rec#                 | Lot Description          | Amount Used            | Conc of Std           | Final Conc |
| v-269839                            | 8270 EXTRA MIX#1(DANGER) | 10 ul                  | 10000 ppm             | 250 ppm    |
| V-289376                            | BNA STOCK Std.A (DANGER) | 400 ul                 | 250 ppm               | 250 ppm    |
| V-269658                            | Benzaldehyde Std         | 10 ul                  | 10000 ppm             | 250 ppm    |
| 10789                               | methylene chloride       | 80 ul                  | neat neat             |            |

## Veritech Lot Number: V-289420



| Prepared By: Bis, Yolanta             |                        | Department: Organics   | ApprovedBy: akmal     |            |
|---------------------------------------|------------------------|------------------------|-----------------------|------------|
| Description: BNA STOCK Std.A (DANGER) |                        | BatchNumber:           | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                  |                        | Concentration: 250 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018           |                        | Final Volume: 1.2 ml   |                       |            |
| Veritech Lot# /Rec#                   | Lot Description        | Amount Used            | Conc of Std           | Final Conc |
| 11745                                 | 8270 MegaMix           | 150 ul                 | 1000 ppm              | 250 ppm    |
| 11169                                 | Benzoic Acid           | 75 ul                  | 2000 ppm              | 250 ppm    |
| 11722                                 | EPA TCL Benzidines Mix | 75 ul                  | 2000 ppm              | 250 ppm    |
| V-285891                              | BNA Surrog.Std.        | 75 ul                  | 1000-2000 pp          | 125-250 pp |
| v-270853                              | BNA-Pest Mix           | 30 ul                  | 5000 ppm              | 250 ppm    |
| V-289043                              | BNA-6 MIX              | 30 ul                  | 5000 ppm              | 250 ppm    |
| 10789                                 | methylene chloride     | 165 ul                 | neat neat             |            |

## Veritech Lot Number: V-289433



| Prepared By: Bis, Yolanta              |                                      | Department: Organics  | ApprovedBy: akmal     |            |
|----------------------------------------|--------------------------------------|-----------------------|-----------------------|------------|
| Description: BNA ICV CAL@50ppm(DANGER) |                                      | BatchNumber:          | ApproveDate: 10/11/18 |            |
| Prep Date: 10/8/2018                   |                                      | Concentration: 50 ppm | Checked: Yes          |            |
| Expiration Date: 11/30/2018            |                                      | Final Volume: 0.2 ml  |                       |            |
| Veritech Lot# /Rec#                    | Lot Description                      | Amount Used           | Conc of Std           | Final Conc |
| V-289420                               | BNA STOCK Std.A (DANGER)             | 40 ul                 | 250 ppm               | 50 ppm     |
| v-269657                               | 8270 EXTRA MIX#1(2nd Source)(DANGER) | 1 ul                  | 10000 ppm             | 50 ppm     |
| V-269658                               | Benzaldehyde Std                     | 1 ul                  | 10000 ppm             | 50 ppm     |
| V-280889                               | BNA Internal Std.                    | 4 ul                  | 2000 ppm              | 40 ppm     |
| 10789                                  | methylene chloride                   | 154 ul                | neat neat             |            |

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-290101



Prepared By: Bis, Yolanta

Department: Organics

ApprovedBy: akmal

Description: DFTPP Mix

BatchNumber:

ApproveDate: 10/23/18

Prep Date: 10/18/2018

Concentration: 50 ppm

Checked: Yes

Expiration Date: 4/18/2019

Final Volume: 1 ml

| Veritech<br>Lot# /Rec# | Lot Description    | Amount Used | Conc of<br>Std | Final<br>Conc |
|------------------------|--------------------|-------------|----------------|---------------|
| 11490                  | DFTPP              | 20 ul       | 2500 ppm       | 50 ppm        |
| 11585                  | DDT-ENDRIN Mix     | 200 ul      | 500 ppm        | 100 ppm       |
| 11035                  | Pentachlorophenol  | 20 ul       | 5000 ppm       | 100 ppm       |
| 11034                  | Benzidine          | 20 ul       | 5000 ppm       | 100 ppm       |
| 10789                  | methylene chloride | 740 ul      | neat neat      |               |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6948



| Description             |
|-------------------------|
| 1,4-Dichlorobenzene(D4) |

ApprovedBy: akmal  
 ApproveDate: 04/23/12  
 Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:          | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-------------------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM-268-0    | PR-18488/07257CB2 | 04/19/12  | 04/19/20  | Hamid, Akmal | 1           | 5g           | neat  | neat   |

## Veritech Control/Receipt Number: 7755



| Description      |
|------------------|
| 2-Fluorobiphenyl |

ApprovedBy: jean  
 ApproveDate: 03/11/13  
 Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 102741-10G   | MKBN8688V | 03/07/13  | 03/07/23  | Hamid, Akmal | 1           | 10G          | Neat  | Neat   |

## Veritech Control/Receipt Number: 7908



| Description |
|-------------|
| 4,4'-DDE    |

ApprovedBy: akmal  
 ApproveDate: 05/22/13  
 Checked: Yes

| Manufacturer | Catalog Num:  | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|---------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| ChemService  | N-10875-100MG | 1487800  | 05/22/13  | 11/30/18  | Hamid, Akmal | 5           | 100m         | neat  | neat   |

## Veritech Control/Receipt Number: 8746



| Description     |
|-----------------|
| Nitrobenzene-d5 |

ApprovedBy: akmal  
 ApproveDate: 06/10/14  
 Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 151955-5g    | MBBB1337V | 06/10/14  | 03/17/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 8747



| Description    |
|----------------|
| 2-Fluorophenol |

ApprovedBy: akmal  
 ApproveDate: 06/10/14  
 Checked: Yes

| Manufacturer  | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|---------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Sigma-Aldrich | F12804       | STBC5591V | 06/10/14  | 03/17/25  | Hamid, Akmal | 1           | 10G          | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9149



| Description    |
|----------------|
| Diphenyl Ether |

ApprovedBy: akmal  
 ApproveDate: 12/15/14  
 Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 240834-5g    | MKBH5698V | 12/12/14  | 12/31/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9150



| Description  |
|--------------|
| Benzaldehyde |

ApprovedBy: akmal  
 ApproveDate: 12/15/14  
 Checked: Yes

| Manufacturer  | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|---------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Sigma-Aldrich | B1334-5g     | MKBP5021V | 12/12/14  | 12/31/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 9154



Description  
Caprolactum

ApprovedBy: jean  
ApproveDate: 03/05/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | C2204-5G     | MKBC5149V | 12/15/14  | 12/31/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9155



Description  
1,2,4,5-Tetrachlorobenzene

ApprovedBy: jean  
ApproveDate: 03/05/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 131857-5G    | 06024IV  | 12/15/14  | 12/31/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9325



Description  
Naphthlene,d8

ApprovedBy: akmal  
ApproveDate: 03/12/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM-365-1    | PR-25998 | 03/11/15  | 06/30/24  | Hamid, Akmal | 2           | 1G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9326



Description  
Phenanthrene, d10

ApprovedBy: akmal  
ApproveDate: 03/12/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:          | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-------------------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM370-1     | PR-23065/081711PN | 03/11/15  | 09/07/21  | Hamid, Akmal | 2           | 1G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9329



Description  
Acenaphthene, d10

ApprovedBy: akmal  
ApproveDate: 03/12/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM-108-1    | PR-25443 | 03/11/15  | 10/25/23  | Hamid, Akmal | 2           | 1G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9402



Description  
ACETOPHENONE

ApprovedBy: akmal  
ApproveDate: 04/14/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CHEM SERVICE | N-11020-1G   | 3707800  | 04/14/15  | 01/31/23  | Hamid, Akmal | 1           | 1G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 9435



Description  
1,4-Dimethylnaphthalene

ApprovedBy: akmal  
ApproveDate: 04/24/15  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | D170305-5G   | STBD6188V | 04/24/15  | 04/24/25  | Hamid, Akmal | 5           | 5G           | 95    | %      |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 9726



Description

Biphenyl

ApprovedBy: akmal

ApproveDate: 10/09/15

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service | N-11207-1G   | 3936400  | 10/01/15  | 12/31/20  | Hamid, Akmal | 2           | 1ml          | Neat  | Neat   |

## Veritech Control/Receipt Number: 9755



Description

Coumarin

ApprovedBy: akmal

ApproveDate: 10/16/15

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service | N-11508-1G   | 4171300  | 10/16/15  | 07/31/23  | Hamid, Akmal | 1           | 1g           | neat  | neat   |

## Veritech Control/Receipt Number: 9756



Description

Pentachloroethane

ApprovedBy: akmal

ApproveDate: 10/16/15

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service | N-12829-1G   | 4377000  | 10/16/15  | 11/30/19  | Hamid, Akmal | 1           | 1g           | neat  | neat   |

## Veritech Control/Receipt Number: 9939



Description

4,4'-DDT

ApprovedBy: akmal

ApproveDate: 01/27/16

Checked: Yes

| Manufacturer | Catalog Num:  | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|---------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service | N-10876-100MG | 4679800  | 01/27/16  | 01/31/23  | Hamid, Akmal | 2           | 100m         | neat  | neat   |

## Veritech Control/Receipt Number: 10002



Description

Chrysene (D12, 98%)

ApprovedBy: akmal

ApproveDate: 02/12/16

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM-261-1    | PR-26960 | 02/12/16  | 11/19/25  | Hamid, Akmal | 1           | 1g           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 10003



Description

Perylene (D12, 98%)

ApprovedBy: akmal

ApproveDate: 02/12/16

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | DLM-366-1    | PR-24113 | 02/12/16  | 10/10/22  | Hamid, Akmal | 1           | 1g           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 10521



Description

Phenol-2,3,4,5,6-d5

ApprovedBy: akmal

ApproveDate: 11/02/16

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 425370-5G    | MBBC0235V | 11/02/16  | 11/02/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 10572



Description

2,4,6-Tribromophenol

ApprovedBy: akmal

ApproveDate: 11/28/16

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 137715-5G    | 29699MJV | 11/07/16  | 11/07/25  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 10573



Description

p-Terphenyl-d14

ApprovedBy: akmal

ApproveDate: 11/28/16

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Aldrich      | 364630-500MG | EB2136V  | 11/07/16  | 11/07/25  | Hamid, Akmal | 2           | 500M         | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 10779



Description

Atrazine

ApprovedBy: akmal

ApproveDate: 03/03/17

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 49085        | LC25183V | 03/02/17  | 02/29/20  | Hamid, Akmal | 5           | 100m         | Neat  | Neat   |

## Veritech Control/Receipt Number: 10780



Description

1,4-Dioxane

ApprovedBy: akmal

ApproveDate: 03/03/17

Checked: Yes

| Manufacturer  | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|---------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Sigma-Aldrich | 76887-5ML-F  | BCBR4405V | 03/02/17  | 12/31/18  | Hamid, Akmal | 1           | 5ML          | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 10781



Description

1-Methylnaphthalene

ApprovedBy: akmal

ApproveDate: 03/03/17

Checked: Yes

| Manufacturer  | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|---------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Sigma-Aldrich | 38383-100MG  | BCBQ5833V | 03/02/17  | 09/30/19  | Hamid, Akmal | 3           | 100M         | 95.2% | NEAT   |

## Veritech Control/Receipt Number: 10789



Description

methylene chloride

ApprovedBy: akmal

ApproveDate: 03/09/17

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-------|--------|
| Fisher       | D151-4       | 170232   | 03/07/17  | 02/28/22  | Lopez, Jose | 4           | 4L           | neat  | neat   |

## Veritech Control/Receipt Number: 11034



Description

Benzidine

ApprovedBy: akmal

ApproveDate: 06/27/17

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 40005        | XA22234V | 06/27/17  | 10/31/19  | Hamid, Akmal | 1           | 1ML          | 5000  | PPM    |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 11035



Description  
Pentachlorophenol

ApprovedBy: akmal  
ApproveDate: 06/27/17  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 40062        | XA25377V | 06/27/17  | 02/29/20  | Hamid, Akmal | 1           | 1ML          | 5000  | PPM    |

## Veritech Control/Receipt Number: 11103



Description  
1,4-Dioxane-D8

ApprovedBy: akmal  
ApproveDate: 08/23/17  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| CIL          | I-19942      | DLM-28-5 | 08/04/17  | 04/30/22  | Hamid, Akmal | 1           | 5G           | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 11125



Description  
8270 MegaMix

ApprovedBy: akmal  
ApproveDate: 08/23/17  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Restek       | 31850        | A0129012 | 08/23/17  | 01/31/19  | Hamid, Akmal | 4           | 1ML          | 1000  | PPM    |

## Veritech Control/Receipt Number: 11169



Description  
Benzoic Acid

ApprovedBy: akmal  
ApproveDate: 09/13/17  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | CRM47508     | XA20010V | 09/13/17  | 04/30/19  | Hamid, Akmal | 2           | 1ML          | 2000  | PPM    |

## Veritech Control/Receipt Number: 11200



Description  
n-Octadecane

ApprovedBy: akmal  
ApproveDate: 09/29/17  
Checked: Yes

| Manufacturer     | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|------------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service Inc | N-12582-1G   | 6095500  | 09/28/17  | 05/31/21  | Hamid, Akmal | 2           | 1ML          | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 11201



Description  
N-Decane

ApprovedBy: akmal  
ApproveDate: 09/29/17  
Checked: Yes

| Manufacturer     | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|------------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Chem Service Inc | N-12526-1G   | 6585700  | 09/28/17  | 05/31/22  | Hamid, Akmal | 2           | 1ML          | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 11299



Description  
Acetone

ApprovedBy: akmal  
ApproveDate: 11/30/17  
Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-------|--------|
| J.T Baker    | 9254-03      | 176288   | 11/30/17  | 05/08/20  | Lopez, Jose | 16          | 4L           | neta  | neta   |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 11366



Description

4,4' -DDD

ApprovedBy: akmal

ApproveDate: 01/03/18

Checked: Yes

| Manufacturer  | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|---------------|--------------|-----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Sigma-Aldrich | 35486-250mg  | BCBS3969V | 01/02/18  | 06/30/21  | Hamid, Akmal | 2           | 250M         | NEAT  | NEAT   |

## Veritech Control/Receipt Number: 11490



Description

DFTTP

ApprovedBy: akmal

ApproveDate: 02/12/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| RESTEK       | 31001        | A0132483 | 02/12/18  | 11/30/20  | Hamid, Akmal | 1           | 1ML          | 2500  | PPM    |

## Veritech Control/Receipt Number: 11565



Description

DDT-Endrin Mix

ApprovedBy: akmal

ApproveDate: 04/02/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 48282        | LRAB7729 | 03/26/18  | 02/28/21  | Hamid, Akmal | 2           | 1ml          | 500   | PPM    |

## Veritech Control/Receipt Number: 11585



Description

DDT-ENDRIN Mix

ApprovedBy: akmal

ApproveDate: 04/04/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 48282        | LRAB7729 | 04/04/18  | 02/28/21  | Hamid, Akmal | 2           | 1ML          | 500   | PPM    |

## Veritech Control/Receipt Number: 11722



Description

EPA TCL Benzidines Mix

ApprovedBy: akmal

ApproveDate: 05/25/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Supelco      | 48906        | XA26144V | 05/24/18  | 04/30/20  | Hamid, Akmal | 2           | 1ml          | 2000  | PPM    |

## Veritech Control/Receipt Number: 11729



Description

methylene chloride

ApprovedBy: akmal

ApproveDate: 06/01/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-------|--------|
| J.T Baker    | 9264-03      | 191771   | 06/01/18  | 03/21/19  | Lopez, Jose | 120         | 4L           | neat  | neat   |

## Veritech Control/Receipt Number: 11745



Description

8270 MegaMix

ApprovedBy: akmal

ApproveDate: 06/06/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:      | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------|--------|
| Restek       | 31850        | A0132384 | 06/06/18  | 05/31/19  | Hamid, Akmal | 2           | 1ML          | 1000  | PPM    |



## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 11911



Description

Acetone

ApprovedBy: akmal

ApproveDate: 08/18/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-------|--------|
| J.T.Baker    | 9254-03      | 179319   | 08/14/18  | 06/13/20  | Lopez, Jose | 32          | 4L           | neat  | neat   |

## Veritech Control/Receipt Number: 12001



Description

acetone

ApprovedBy: akmal

ApproveDate: 09/26/18

Checked: Yes

| Manufacturer | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc: | Units: |
|--------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-------|--------|
| J.T.Baker    | 9254-03      | 179319   | 09/25/18  | 06/13/20  | Lopez, Jose | 24          | 4L           | neat  | neat   |

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 11759



Description  
BASE NEUTRAL COMP MIX

ApprovedBy: jean  
ApproveDate: 06/08/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
ACCUSTANDAR CLP-HC-BN-PAK 217031389-01 06/08/18 12/16/18 Revolus, Jean

Num of Volume  
Cont /Cont Conc: Units:  
15 1ml 2000 PPM

## Veritech Control/Receipt Number: 11761



Description  
Toxic Substances Mix #2

ApprovedBy: jean  
ApproveDate: 06/08/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
ACCUSTANDAR Z-014E-PAK 218031110 06/08/18 04/14/20 Revolus, Jean

Num of Volume  
Cont /Cont Conc: Units:  
15 1ml 20000 PPM

## Veritech Control/Receipt Number: 12011



Description  
Acid Composite Mix

ApprovedBy: akmal  
ApproveDate: 10/01/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
ACCUSTANDAR CLP-HC-A-R-PAK 217121025-01 09/27/18 06/13/21 Revolus, Jean

Num of Volume  
Cont /Cont Conc: Units:  
15 1ml 2000 PPM

## Veritech Control/Receipt Number: 12028



Description  
methylene chloride

ApprovedBy: jean  
ApproveDate: 10/10/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
J.T.Baker 9264-03 206560 10/05/18 10/18/19 Lopez, Jose

Num of Volume  
Cont /Cont Conc: Units:  
156 4L neat neat

## Veritech Control/Receipt Number: 12030



Description  
sodium sulfate

ApprovedBy: jean  
ApproveDate: 10/10/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
Seidler SC3375-1C 743502 10/05/18 10/04/23 Lopez, Jose

Num of Volume  
Cont /Cont Conc: Units:  
4 100L neat neat

## Veritech Control/Receipt Number: 12049



Description  
Base/Neutral Comp Mix

ApprovedBy: akmal  
ApproveDate: 10/23/18  
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:  
ACCUSTANDAR CLP-HC-BN-PAK 218091380 10/05/18 11/02/19 Revolus, Jean

Num of Volume  
Cont /Cont Conc: Units:  
10 1ml 2000 PPM

## Veritech Standard Receipt Log

| Veritech Control/Receipt Number: 11761 |              |           |           |           |               |             |              |                       |        |  |  |
|----------------------------------------|--------------|-----------|-----------|-----------|---------------|-------------|--------------|-----------------------|--------|-------------------------------------------------------------------------------------|--|
| Description                            |              |           |           |           |               |             |              | ApprovedBy: jean      |        |                                                                                     |  |
| Toxic Substances Mix #2                |              |           |           |           |               |             |              | ApproveDate: 06/08/18 |        |                                                                                     |  |
|                                        |              |           |           |           |               |             |              | Checked: Yes          |        |                                                                                     |  |
| Manufacturer                           | Catalog Num: | Lot Num:  | Date Rec: | Exp Date: | Rec By:       | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                     |  |
| ACCUSTANDAR                            | Z-014E-PAK   | 218031110 | 06/08/18  | 04/14/20  | Revolus, Jean | 15          | 1ml          | 20000                 | PPM    |                                                                                     |  |

| Veritech Control/Receipt Number: 12001 |              |          |           |           |             |             |              |                       |        |  |  |
|----------------------------------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-----------------------|--------|-------------------------------------------------------------------------------------|--|
| Description                            |              |          |           |           |             |             |              | ApprovedBy: akmal     |        |                                                                                     |  |
| acetone                                |              |          |           |           |             |             |              | ApproveDate: 09/26/18 |        |                                                                                     |  |
|                                        |              |          |           |           |             |             |              | Checked: Yes          |        |                                                                                     |  |
| Manufacturer                           | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                     |  |
| J.T.Baker                              | 9254-03      | 179319   | 09/25/18  | 06/13/20  | Lopez, Jose | 24          | 4L           | neat                  | neat   |                                                                                     |  |

| Veritech Control/Receipt Number: 12011 |                |              |           |           |               |             |              |                       |        |  |  |
|----------------------------------------|----------------|--------------|-----------|-----------|---------------|-------------|--------------|-----------------------|--------|-------------------------------------------------------------------------------------|--|
| Description                            |                |              |           |           |               |             |              | ApprovedBy: akmal     |        |                                                                                     |  |
| Acid Composite Mix                     |                |              |           |           |               |             |              | ApproveDate: 10/01/18 |        |                                                                                     |  |
|                                        |                |              |           |           |               |             |              | Checked: Yes          |        |                                                                                     |  |
| Manufacturer                           | Catalog Num:   | Lot Num:     | Date Rec: | Exp Date: | Rec By:       | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                     |  |
| ACCUSTANDAR                            | CLP-HC-A-R-PAK | 217121025-01 | 09/27/18  | 06/13/21  | Revolus, Jean | 15          | 1ml          | 2000                  | PPM    |                                                                                     |  |

| Veritech Control/Receipt Number: 12028 |              |          |           |           |             |             |              |                       |        |  |  |
|----------------------------------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-----------------------|--------|-------------------------------------------------------------------------------------|--|
| Description                            |              |          |           |           |             |             |              | ApprovedBy: jean      |        |                                                                                     |  |
| methylene chloride                     |              |          |           |           |             |             |              | ApproveDate: 10/10/18 |        |                                                                                     |  |
|                                        |              |          |           |           |             |             |              | Checked: Yes          |        |                                                                                     |  |
| Manufacturer                           | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                     |  |
| J.T.Baker                              | 9264-03      | 206560   | 10/05/18  | 10/18/19  | Lopez, Jose | 156         | 4L           | neat                  | neat   |                                                                                     |  |

| Veritech Control/Receipt Number: 12030 |              |          |           |           |             |             |              |                       |        |  |  |
|----------------------------------------|--------------|----------|-----------|-----------|-------------|-------------|--------------|-----------------------|--------|---------------------------------------------------------------------------------------|--|
| Description                            |              |          |           |           |             |             |              | ApprovedBy: jean      |        |                                                                                       |  |
| sodium sulfate                         |              |          |           |           |             |             |              | ApproveDate: 10/10/18 |        |                                                                                       |  |
|                                        |              |          |           |           |             |             |              | Checked: Yes          |        |                                                                                       |  |
| Manufacturer                           | Catalog Num: | Lot Num: | Date Rec: | Exp Date: | Rec By:     | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                       |  |
| Seidler                                | SC3375-1C    | 743502   | 10/05/18  | 10/04/23  | Lopez, Jose | 4           | 100L         | neat                  | neat   |                                                                                       |  |

| Veritech Control/Receipt Number: 12049 |               |           |           |           |               |             |              |                       |        |  |  |
|----------------------------------------|---------------|-----------|-----------|-----------|---------------|-------------|--------------|-----------------------|--------|---------------------------------------------------------------------------------------|--|
| Description                            |               |           |           |           |               |             |              | ApprovedBy: akmal     |        |                                                                                       |  |
| Base/Neutral Comp Mix                  |               |           |           |           |               |             |              | ApproveDate: 10/23/18 |        |                                                                                       |  |
|                                        |               |           |           |           |               |             |              | Checked: Yes          |        |                                                                                       |  |
| Manufacturer                           | Catalog Num:  | Lot Num:  | Date Rec: | Exp Date: | Rec By:       | Num of Cont | Volume /Cont | Conc:                 | Units: |                                                                                       |  |
| ACCUSTANDAR                            | CLP-HC-BN-PAK | 218091380 | 10/05/18  | 11/02/19  | Revolus, Jean | 10          | 1ml          | 2000                  | PPM    |                                                                                       |  |



QC71496

# Extraction of Semi-volatile – Aqueous Method 3510 C

Hampton 8101509 0673

Method Blank No. WMB- \_\_\_\_\_  
Blank Spike (MBS): \_\_\_\_\_  
Start extraction time: 8:00  
End extraction time: 3:00  
Recirculator: Start temp: \_\_\_\_\_  
End temp: \_\_\_\_\_

Date: 10/22/18  
Matrix Spike: \_\_\_\_\_  
Shaker Used: 4, 5, 6  
Condenser used: JIR 6, 7, 8  
Condenser Flow: 2500 CCM

| Sample Number          | # In Batch | Initial Volume | Final Volume | pH Verification |             | Fraction |     |    | Extracted By/<br>Comments<br>Extract | Ext.<br>by | TCLP<br>QC |
|------------------------|------------|----------------|--------------|-----------------|-------------|----------|-----|----|--------------------------------------|------------|------------|
|                        |            |                |              | NaOH<br>≥12     | H2SO4<br><2 | BN       | BNA | AE |                                      |            |            |
| MB 71496               | X          | 1000ml         | 1ml          | X               | X           |          | X   |    | EF-1 (10/18)                         | JIR        | 07157      |
| MBS 71496              |            | ↓              |              |                 |             |          |     |    | V-289820                             |            | -001       |
| MS07157-001            |            | 250ml          |              |                 |             |          |     |    |                                      |            |            |
| MS07157-001            |            |                |              |                 |             |          |     |    |                                      |            |            |
| AD07157-001            | 1          |                |              |                 |             |          |     |    | 1                                    |            | 1          |
| ↓ -002                 | 2          |                |              |                 |             |          |     |    | 2                                    |            | 2          |
| ↓ -003                 | 3          |                |              |                 |             |          |     |    | 3                                    |            | 3          |
| ↓ -004                 | 4          |                |              |                 |             |          |     |    | 4                                    |            | 4          |
| EF-1, V-289820 (10/18) |            |                |              |                 |             |          |     |    |                                      |            |            |
| AD07132-001            | 5          |                |              |                 |             |          |     |    | (1) EF-1 (10/18)                     |            | 5          |
| EF-1, V-289820 (10/17) |            |                |              |                 |             |          |     |    | V-289820                             |            |            |
| AD06943-001            | 6          |                |              |                 |             |          |     |    | (1) EF-1 (10/18)                     |            | 6          |
| EF-1, V-289820 (10/19) |            |                |              |                 |             |          |     |    | V-289820                             |            |            |
| AD07118-003            | R          | 1000ml         | ↓            | ↓               | ↓           |          | ↓   |    |                                      | ↓          |            |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 11759   | BN mix    |
| ↓          | ↓               | 12011   | Acid comp |
| ↓          | ↓               | 11761   | Toxic mix |
| ↓          | ↓               | 288615  | CLP mix   |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |         |
|------------|-----------------|---------|---------|
| 50         | 1000/2000       | 28589   | BN SURV |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone \_\_\_\_\_ Hexane \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> 12030

Other \_\_\_\_\_

Relinquished By: JIRDate: 10/22/18Received By: RLDate: 10/23/18

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0033



# Method 3510 C

8101509 0675

Method Blank No. WMB-  
Blank Spike (MBS):  
Start extraction time: 11:34 am  
End extraction time: 8:37 pm  
Recirculator: Start temp: 20.0, 14.8  
End temp: 20.0, 14.6

Date: 10/18/18  
Matrix Spike: 71471  
Shaker Used: 1, 2, 3  
Condenser used: 1, 2, 5  
Condenser Flow: 2500 CCM

| Sample Number | # In Batch | Initial Volume | Final Volume | pH Verification |             | Fraction |     |    | Extracted By/<br>Comments<br>Extract | Ext. | TCLP            |
|---------------|------------|----------------|--------------|-----------------|-------------|----------|-----|----|--------------------------------------|------|-----------------|
|               |            |                |              | NaOH<br>≥12     | H2SO4<br><2 | BN       | BNA | AE |                                      |      |                 |
| MB 71471      | X          | 1000           | 0.5          | X               | X           |          | X   |    | EF, 289820 10/16                     | g    | 07093-001 1/2 S |
| MBS 71471     | X          | ↓              | 1.0          |                 |             |          |     |    |                                      |      |                 |
| MS 07093-001  | X          | 250            |              |                 |             |          |     |    |                                      |      |                 |
| MSD 07093-001 | X          | ↓              |              |                 |             |          |     |    |                                      |      |                 |
| AD 07093-001  | 1          | ↓              |              |                 |             |          |     |    |                                      |      |                 |
| AD 07113-001  | 2          | 1000           |              |                 |             |          |     |    |                                      |      |                 |
| AD 07114-001  | 3          | ↓              |              |                 |             |          |     |    |                                      |      |                 |
| AD 07115-001  | 4          | ↓              |              |                 |             | X        |     |    |                                      |      |                 |
| ↓ -002        | 5          | ↓              |              |                 |             | ↓        |     |    |                                      |      |                 |
| AD 07118-001  | 6          | 970            | 0.5          |                 | X           |          | X   |    |                                      |      | 1/2 Sur         |
| ↓ -003        | 7          | 1000           |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -005        | 8          | ↓              |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -007        | 9          | ↓              |              |                 |             |          |     |    |                                      |      | ↓               |
| AD 07120-001  | 10         | ↓              | 1.0          |                 |             | X        |     |    |                                      |      |                 |
| ↓ -002        | 11         | 970            |              |                 |             |          |     |    |                                      |      |                 |
| AD 07121-001  | 12         | 960            | 0.5          |                 |             |          |     |    |                                      |      | 1/2 Sur         |
| ↓ -002        | 13         | 980            |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -003        | 14         | 975            |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -004        | 15         | 980            |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -006        | 16         | 1000           |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -007        | 17         | 990            |              |                 |             |          |     |    |                                      |      |                 |
| ↓ -008        | 18         | 1000           |              |                 |             |          |     |    |                                      |      |                 |
| AD 07056-C11  | R          | 1000           | 1.0          | X               | X           |          | X   |    |                                      | AP   |                 |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 11759   | BN Mix    |
| ↓          | ↓               | 12011   | Acid Comp |
| ↓          | ↓               | 11761   | Toxic Mix |
| ↓          | ↓               | 288615  | CLP Mix   |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |         |
|------------|-----------------|---------|---------|
| 50         | 1000/2000       | 285841  | BN Sur. |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone Hexane Na<sub>2</sub>SO<sub>4</sub> 12030

Other

Relinquished By: g

Date: 10/18/18

Received By: de

Date: 10/19/18

T:\QC\FORMS\LOGBOOK FORMS\extractions\BN Aqu\_ Ext Log 2018.doc



QC71479

Hampton-Clark 8101509 0676

Extraction of Semi-volatile - Aqueous  
Method 3510 C

Method Blank No. WMB- \_\_\_\_\_  
 Blank Spike (MBS): \_\_\_\_\_  
 Start extraction time: 10:39 am  
 End extraction time: 7:16 pm  
 Recirculator: Start temp: 20.0, 14.8  
 End temp: 20.1, 14.6

Date: 10/19/18  
 Matrix Spike: 71479  
 Shaker Used: 1, 2, 3  
 Condenser used: 1, 2, 5  
 Condenser Flow: 2500 CCM

| Sample Number     | # In Batch | Initial Volume | Final Volume | pH Verification |             | Fraction |     |    | Extracted By/<br>Comments<br>Extract<br>Fluid | Ext.<br>by | TCLP<br>QC           |
|-------------------|------------|----------------|--------------|-----------------|-------------|----------|-----|----|-----------------------------------------------|------------|----------------------|
|                   |            |                |              | NaOH<br>≥12     | H2SO4<br>≤2 | BN       | BNA | AE |                                               |            |                      |
| MB 71479          | X          | 1000           | 0.5          | X               | X           |          | X   |    | SPLP 289066 10/12                             | Jm         | 106939-001 1/2 Surr. |
| MBS 71479         | X          | ↓              | 1.0          |                 |             |          |     |    |                                               |            |                      |
| MS 06939-001      | X          | 250            | ↓            |                 |             |          |     |    |                                               |            |                      |
| MSD 06939-001     | X          | ↓              | ↓            |                 |             |          |     |    |                                               |            |                      |
| AD 06939-001      | 1          | 500            | 0.5          |                 | ↓           |          | ↓   |    |                                               |            | 1/2 Surr.            |
| SPLP 289066 10/12 | X          |                |              |                 |             | X        |     |    | SPLP 289066 W10                               |            |                      |
| AD 06821-001      | 2          |                |              |                 |             |          |     |    |                                               |            |                      |
| SPLP 289066 10/10 | X          |                |              |                 |             |          |     |    | SPLP 289066 10/17                             |            |                      |
| AD 06980-005      | 3          |                |              |                 |             |          |     |    |                                               |            |                      |
| SPLP 289066 10/17 | X          | ↓              | ↓            |                 |             |          |     |    |                                               |            | ↓                    |
| AD 07131-001      | 4          | 1000           | 1.0          |                 |             |          |     |    |                                               |            | 1/2 Surr.            |
| ↓ -002            | 5          | ↓              | ↓            |                 |             |          |     |    |                                               |            |                      |
| AD 07142-001      | 6          | 995            | 0.5          |                 |             |          |     |    |                                               |            |                      |
| AD 07133-001      | 7          | 1000           | 1.0          |                 |             |          |     |    |                                               |            |                      |
| ↓ -002            | 8          |                | ↓            |                 |             | ↓        |     |    |                                               |            |                      |
| AD 07137-001      | 9          |                | 0.5          |                 | X           |          | X   |    |                                               |            | 1/2 Surr.            |
| ↓ -003            | 10         |                |              |                 |             |          |     |    |                                               |            |                      |
| ↓ -005            | 11         |                |              |                 | ↓           |          | ↓   |    |                                               |            |                      |
| AD 07143-001      | 12         |                |              |                 |             | X        |     |    |                                               |            |                      |
| ↓ -002            | 13         |                |              |                 |             |          |     |    |                                               |            |                      |
| ↓ -003            | 14         |                |              |                 |             |          |     |    |                                               |            |                      |
| ↓ -004            | 15         |                |              |                 |             |          |     |    |                                               |            |                      |
| ↓ -005            | 16         |                | ↓            |                 |             |          |     |    |                                               |            | ↓                    |
| AD 07081-015      | R          | ↓              | 1.0          |                 |             |          |     |    |                                               |            |                      |
| ↓ -017            | R          | 960            |              |                 |             |          |     |    |                                               |            |                      |
| AD 07072-007      | R          | 1000           |              |                 |             | ↓        |     |    |                                               |            |                      |
| AD 07113-001      | R          | ↓              | ↓            | ↓               | X           |          | X   |    |                                               |            |                      |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 11759   | BN Mix    |
| ↓          | ↓               | 12011   | Acid Comp |
| ↓          | ↓               | 11761   | Toxic Mix |
| ↓          | ↓               | 288615  | CLP Mix   |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |          |
|------------|-----------------|---------|----------|
| 50         | 1000/2000       | 285891  | BN Surr. |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone \_\_\_\_\_ Hexane \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> 12030

Other \_\_\_\_\_

Relinquished By: JmDate: 10/19/18Received By: JcDate: 10/22/18

QC71480

**Analysis: BN/ BNA /AE**

Method Blank No. SMB- \_\_\_\_\_  
Blank Spike (SMBS): \_\_\_\_\_  
Blank Spike (SMBS): \_\_\_\_\_  
Start Ext Time: 11:08 AM  
End Ext. Time: 5:01 PM  
Recirculator: Start temp: 14.9  
End temp: 14.2

Date: 10/19/18  
Matrix Spike: 7/480  
Matrix Spike: \_\_\_\_\_  
Sonicator Used: 42  
Condenser Used: 3.4  
Condenser Flow: 2500 CCM

[illegible]

| Vol (ul's) | Conc.<br>(ppm/ppb) | Lot No. |          |
|------------|--------------------|---------|----------|
| 25         | 1000               | 288144  | AN TOX   |
|            |                    | 288614  | GLP MIX  |
|            | 2000               | 12011   | Abul com |
|            |                    |         |          |
|            |                    |         |          |
|            |                    |         |          |
|            |                    |         |          |

[illegible]

Reagent Lots:  $\text{MeCl}_2$  12029 Acetone 12001 Hexane \_\_\_\_\_  $\text{Na}_2\text{SO}_4$  12030 Ether \_\_\_\_\_  
MTBE \_\_\_\_\_  $\text{MeCl}_2$ :Acetone \_\_\_\_\_ Other \_\_\_\_\_

Relinquished By: LV  
Received By: JP

Date: 10/19/18  
Date: 10/22/18





QC71506

Hampton-Clarke 8101509 0678

Extraction of Semi-volatile - Aqueous  
Method 3510 C

Method Blank No. WMB- \_\_\_\_\_

Blank Spike (MBS): \_\_\_\_\_

Start extraction time: 11:29 amEnd extraction time: 8:27 pmRecirculator: Start temp: 20.0, 14.8End temp: 20.1, 14.7Date: 10/23/18Matrix Spike: 71506Shaker Used: 1,2,3Condenser used: 1,2,5Condenser Flow: 2500 CCM

| Sample Number     | # In Batch | Initial Volume | Final Volume | pH Verification |             | Fraction |     |    | Extracted By/<br>Comments<br>Extract<br>Fluid | Ext.<br>by | TCLP<br>QC          |
|-------------------|------------|----------------|--------------|-----------------|-------------|----------|-----|----|-----------------------------------------------|------------|---------------------|
|                   |            |                |              | NaOH<br>≥12     | H2SO4<br>≤2 | BN       | BNA | AE |                                               |            |                     |
| MB 71506          | X          | 1000           | 0.5          | X               | X           |          | X   |    | SPLP 289965 10/23                             | Jn         | 07249-006 1/2 Surr. |
| MBS 71506         | X          | ↓              | 1.0          |                 |             |          |     |    |                                               |            |                     |
| MS 07249-006      | X          | 250            | ↓            |                 |             |          |     |    |                                               |            |                     |
| MSD 07249-006     | X          | ↓              | ↓            |                 |             |          |     |    |                                               |            |                     |
| AD 07249-006      | 1          | 500            | 0.5          |                 | ↓           |          | ↓   |    | 1                                             |            | 1 1/2 Surr.         |
| ↓ -009            | 2          | ↓              | ↓            |                 |             | X        |     |    | 2                                             |            | 2                   |
| ↓ -010            | 3          | ↓              | ↓            |                 |             |          |     |    | 3                                             |            | 3                   |
| SPLP 289965 10/23 | X          | ↓              | ↓            |                 |             |          |     |    |                                               |            |                     |
| AD 07165-004      | 4          | 990            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -005            | 5          | 970            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -006            | 6          | 955            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -007            | 7          | ↓              | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -008            | 8          | 940            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -009            | 9          | 945            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -010            | 10         | 995            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -011            | 11         | 1000           | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -012            | 12         | 990            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -013            | 13         | 970            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -014            | 14         | 965            | ↓            |                 |             |          |     |    |                                               |            |                     |
| ↓ -015            | 15         | 1000           | ↓            |                 |             |          |     |    |                                               |            |                     |
| AD 07179-001      | 16         | ↓              | 1.0          |                 |             | ↓        |     |    |                                               |            |                     |
| ↓ -002            | 17         | ↓              | ↓            |                 |             |          |     |    |                                               |            |                     |
| AD 07166-023      | 18         | 925            | ↓            |                 | X           |          | X   |    |                                               |            |                     |
| AD 07224-005      | 19         | 950            | ↓            |                 |             | X        |     |    |                                               |            |                     |
| AD 07137-001      | R          | 1000           | 0.5          | ↓               | X           |          | X   |    |                                               |            | 1/2 Surr.           |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 12049   | BN Mix    |
| ↓          | ↓               | 12061   | Acid Comp |
| ↓          | ↓               | 11761   | Toxic Mix |
| ↓          | ↓               | 288615  | CLP Mix   |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |          |
|------------|-----------------|---------|----------|
| 50         | 1000/2000       | 285891  | BN Surr. |
|            |                 |         |          |
|            |                 |         |          |
|            |                 |         |          |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone \_\_\_\_\_ Hexane \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> 12030

Other \_\_\_\_\_

Relinquished By: JnDate: 10/23/18Received By: 2Date: 10/24/18

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QC71518

Extraction of Semi-volatile - Aqueous  
Method 3510 C8101509 0679  
Hampton-ClarkeMethod Blank No. WMB- \_\_\_\_\_  
Blank Spike (MBS): \_\_\_\_\_  
Start extraction time: 12:51 pm  
End extraction time: \_\_\_\_\_  
Recirculator: Start temp: \_\_\_\_\_  
End temp: \_\_\_\_\_Date: 10/24/18  
Matrix Spike: 71518  
Shaker Used: 1,2,3  
Condenser used: 1,2,5  
Condenser Flow: 2500 CCM

| Sample Number    | # In Batch | Initial Volume | Final Volume | pH Verification |             | Fraction |     |    | Extracted By/<br>Comments<br>Extract<br>Fluid | Ext. by | TCLP<br>QC     |
|------------------|------------|----------------|--------------|-----------------|-------------|----------|-----|----|-----------------------------------------------|---------|----------------|
|                  |            |                |              | NaOH<br>≥12     | H2SO4<br>≤2 | BN       | BNA | AE |                                               |         |                |
| MB 71518         | X          | 1000           | 0.5          | X               | X           |          | X   |    | EF, 289820 10/23                              | Jn      | 07252-002 1/25 |
| MBS 71518        | X          | ↓              | 1.0          |                 |             |          |     |    |                                               |         |                |
| MS 07252-002     | X          | 250            |              |                 |             |          |     |    |                                               |         |                |
| MSD 07252-002    | X          |                |              |                 |             |          |     |    |                                               |         |                |
| AD 07252-002     | 1          |                |              |                 |             |          |     |    | 1                                             |         | 1              |
| AD 07187-002     | 2          |                |              |                 |             |          |     |    | 2                                             |         | 2              |
| EF, 289820 10/23 | X          | ↓              |              |                 |             |          |     |    |                                               |         |                |
| AD 07180-001     | 3          | 1000           |              |                 |             | X        |     |    |                                               |         |                |
| ↓ -002           | 4          |                |              |                 |             | ↓        |     |    |                                               |         |                |
| AD 07186-009     | 5          |                |              |                 |             | ↓        |     |    |                                               |         |                |
| AD 07185-008     | 6          | ↓              | ↓            |                 | X           |          | X   |    |                                               |         |                |
| AD 07188-009     | 7          | 505            | 0.5          |                 | ↓           |          | ↓   |    |                                               |         | 1/25           |
| AD 07212-001     | 8          | 1000           | 1.0          |                 |             | X        |     |    |                                               |         |                |
| AD 07204-001     | 9          |                |              |                 | X           |          | X   |    |                                               |         |                |
| AD 07205-001     | 10         |                |              |                 | ↓           |          | ↓   |    |                                               |         |                |
| AD 07207-009     | 11         | ↓              | ↓            |                 | ↓           |          | ↓   |    |                                               |         |                |
| AD 07249-009     | R          | 500            | 0.5          |                 |             | X        |     |    |                                               |         | 1/25           |
| ↓ -010           | R          | ↓              |              |                 |             | ↓        |     |    |                                               |         |                |
| AD 07161-001     | R          | 400            |              |                 | X           |          | X   |    |                                               |         |                |
| AD 07142-003     | R          | 1000           |              |                 |             | X        |     |    |                                               |         |                |
| ↓ -004           | R          | 995            | ↓            | ↓               |             | ↓        |     |    |                                               |         | ↓              |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 12049   | BN Mix    |
| ↓          | ↓               | 12011   | Acid Comp |
|            |                 | 12010   | Toxic Mix |
| ↓          | ↓               | 288615  | CP Mix    |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |         |
|------------|-----------------|---------|---------|
| 50         | 1000/2000       | 285891  | BN Sur. |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone \_\_\_\_\_ Hexane \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> 12030

Other \_\_\_\_\_

Relinquished By: JnDate: 10/24/18Received By: 22Date: 10/25/18

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0036



8101509 0680

Extraction of Sediment Samples  
Method 3010C

Method Blank No. WMB-  
Blank Spike (MBS):  
Start extraction time: 12:26  
End extraction time: 4:54 pm  
Recirculator: Start temp: 20.0, 14.8  
End temp: 20.1, 14.6

Date: 10/25/18  
Blank Spike: 71532  
Sample ID: 4567  
Concentration: 1.25  
Concentration Flow: 2500 CCM

| Sample Number | # In Batch | Initial Volume | Final Volume | Verification |      | Fraction |     |    | Extracted By/<br>Comments<br>Date | Est. by | REL<br>QC  |
|---------------|------------|----------------|--------------|--------------|------|----------|-----|----|-----------------------------------|---------|------------|
|               |            |                |              | BN           | MSO4 | BN       | BNA | AE |                                   |         |            |
| MB 71532      | X          |                | 0.5          | X            | X    |          | X   |    |                                   | Jm      | 1/25 Surr. |
| MBS 71532     | X          |                |              |              | X    |          | X   |    |                                   |         |            |
| MS 07294-001  | X          | 500            |              |              |      | X        |     |    |                                   |         |            |
| MSH 07294-001 | X          |                |              |              |      | X        |     |    |                                   |         |            |
| AD 07294-001  | 1          |                |              |              |      | X        |     |    |                                   |         | 1/25 Surr. |
| AD 07212-002  | 2          |                |              |              |      |          |     |    |                                   |         |            |
| AD 07212-003  | 3          | 1000           | 0.5          | X            |      | X        |     |    |                                   | Jm      | 1/25 Surr. |
| -004          | 4          |                |              |              |      |          |     |    |                                   |         |            |
| -005          | 5          |                |              |              |      |          |     |    |                                   |         |            |
| AD 07142-005  | R          | 945            |              |              |      |          |     |    |                                   |         |            |
| -006          | R          | 940            |              |              |      |          |     |    |                                   |         |            |
| -007          | R          | 965            |              |              |      |          |     |    |                                   |         |            |
| -008          | R          | 960            |              |              |      |          |     |    |                                   |         |            |
| -009          | R          | 950            |              |              |      | X        |     |    |                                   |         |            |
| AD 07161-003  | R          | 865            | 0.25         |              | X    |          | X   |    |                                   |         | 1/4 Surr.  |
| -005          | R          |                |              |              |      |          |     |    |                                   |         |            |
| -007          | R          | 970            | 0.5          |              |      |          |     |    |                                   |         | 1/2 Surr.  |
| -008          | R          | 960            |              |              |      |          |     |    |                                   |         |            |
| AD 07165-002  | R          | 1000           |              |              |      | X        |     |    |                                   |         |            |
| -003          | R          | 970            |              |              |      |          |     |    |                                   |         |            |
| -007          | R          | 970            |              |              |      |          |     |    |                                   |         |            |
| -008          | R          | 920            |              |              |      |          |     |    |                                   |         |            |
| -009          | R          | 940            |              |              |      |          |     |    |                                   |         |            |
| -010          | R          | 965            |              |              |      |          |     |    |                                   |         |            |
| -015          | R          | 970            |              |              |      |          |     |    |                                   |         |            |

## Spike Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |           |
|------------|-----------------|---------|-----------|
| 50         | 2000            | 12049   | BN Mix    |
|            |                 | 12011   | Acid Comp |
|            |                 | 12010   | Toxic Mix |
|            |                 | 288615  | CLP Mix   |

## Surrogate Standard

| Vol (ul's) | Conc. (ppm/ppb) | Lot No. |          |
|------------|-----------------|---------|----------|
| 50         | 1000/2000       | 285891  | BN Surr. |

Reagent Lots: MeCl<sub>2</sub> 12028 Acetone \_\_\_\_\_ Hexane \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> 12030

Other \_\_\_\_\_

Relinquished By: Jm

Date: 10/25/18

Received By: [Signature]

Date: 10/26/18

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## RUN LOG

Instrument: GCMS 10Year: 2018  
81015090681

1-1-10M71228

| Data File | Sample Number    | Flags             | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|------------------|-------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 10M71228  | CAL DFTPP        | Ee1=2.2;Ed1=0.31; | OK, V-282441 | JB 10/09/18 |            | Aqueous | 1        | 1       |           | 10/08 08:27   |
| 10M71229  | CAL BNA@10PPM    |                   | OK, V-289382 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 08:51   |
| 10M71230  | CAL BNA@2PPM     |                   | OK, V-289390 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 09:15   |
| 10M71231  | CAL BNA@196PPM   |                   | OK, V-289388 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 09:38   |
| 10M71232  | CAL BNA@160PPM   |                   | OK, V-289387 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 10:00   |
| 10M71233  | CAL BNA@120PPM   |                   | OK, V-289386 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 10:22   |
| 10M71234  | CAL BNA@80PPM    |                   | OK, V-289385 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 10:44   |
| 10M71235  | CAL BNA@20PPM    |                   | OK, V-289383 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 11:06   |
| 10M71236  | CAL BNA@.5PPM    |                   | OK, V-289391 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 11:28   |
| 10M71237  | CAL BNA@50PPM    |                   | OK, V-289384 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 11:51   |
| 10M71238  | ICV BNA@50PPM Is |                   | OK, V-289433 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625/827   | 10/08 12:15   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Ans | Area Not Checked                                  | Ex      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Fsm     | Solvent Extraction Date Missing/Not checked         | CRN     | Warning c30/c20 not checked                     |
| R8m | Blank 600 series missing                          | Flm     | Totl/Solvent Extraction Date Missing/Not checked    | Cm      | C30/C20 failed for enh                          |
| R8m | Blank 8000 series missing                         | Flm     | Totl Extraction Performed Outside of Hold           | EVF     | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evnc    | Eval Mix missing dth or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Hn      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMet (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMet (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| CRf | 600 series sample/blank did not have missing cal  | Is      | Initial Cal Not Checked                             | Rln     | Can't Calculate Drift                           |
| CRf | 8000 series sample/blank did not have missing cal | Iv      | Pmth with calmr csv for init calibration check rfs  | S6      | 600 series surrogate out                        |
| Cme | Endrin Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS-5 Year: 2018  
Analyst: AHJG  
8101509-1682

1-1-5M105686

| Data File | Sample Number  | Flags             | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|----------------|-------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 5M105686  | CAL DFTPP      | Ee1=4 5;Ed1=0.58; | OK, V-282441 | JB 10/09/18 |            | Aqueous | 1        | 1       |           | 10/08 08:31   |
| 5M105687  | CAL BNA@10PPM  |                   | OK, V-289382 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 08:57   |
| 5M105688  | CAL BNA@2PPM   | IsC16C18          | RR           | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 09:20   |
| 5M105689  | CAL BNA@196PPM |                   | OK, V-289388 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 09:45   |
| 5M105690  | CAL BNA@160PPM |                   | OK, V-289387 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 10:11   |
| 5M105691  | CAL BNA@120PPM |                   | OK, V-289386 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 10:34   |
| 5M105692  | CAL BNA@80PPM  |                   | OK, V-289385 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 10:57   |
| 5M105693  | CAL BNA@20PPM  |                   | OK, V-289383 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 11:26   |
| 5M105694  | CAL BNA@.5PPM  |                   | OK, V-289391 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 11:49   |
| 5M105695  | CAL BNA@50PPM  |                   | OK, V-289384 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 12:12   |
| 5M105696  | CAL BNA@2PPM   |                   | OK, V-289390 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 12:40   |
| 5M105697  | ICV BNA@50PPM  | Is                | OK, V-289433 | JB 10/09/18 |            | Aqueous | 1        | 1       | 6251827   | 10/08 13:09   |

|     |                                                   |         |                                                     |          |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|----------|-------------------------------------------------|
| Ans | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn       | Warning Possible Carry Over                     |
| An  | Area Out                                          | Esm     | Solvent Extraction Date Missing/Not check'd         | CRN      | Warning c30/c20 not checked                     |
| B8m | Blank 8000 series missing                         | Etn     | Tcin/Solvent Extraction Date Missing/Not check'd    | Cm       | C30/C20 failed for enh                          |
| B8n | Blank 8000 series missing                         | Etn     | Tcin Extraction Performed Outside of Hold           | EvF      | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evmc     | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evmc     | Eval Mix missing dft or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26  | Rnd Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28  | Rnd Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn       | Retention Time Out Or %Diff Out                 |
| C8f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn      | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Pmh with calmt.csv for init calibration check rfs   | S6       | 600 series surrogate out                        |
| Cma | Endrin Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <> method         | S8       | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Iv      | Initial Cal Files Not Updated Properly for a sample | ISa6.Sb6 | Acid and/or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: CN619-7000-0683  
Analyst: AH/JB

1-1-9M88300

| Data File | Sample Number    | Flags            | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|------------------|------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 9M88300.D | CAL DFTPP        | Ee1=3.3;Ed1=0.4; | OK, V-282441 | JB 10/09/18 |            | Aqueous | 1        | 1       |           | 10/08 09:00   |
| 9M88301.D | CAL BNA@10PPM    |                  | OK, V-289382 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 10:20   |
| 9M88302.D | CAL BNA@2PPM     |                  | OK, V-289390 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 10:42   |
| 9M88303.D | CAL BNA@196PPM   |                  | OK, V-289388 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 11:05   |
| 9M88304.D | CAL BNA@160PPM   |                  | OK, V-289387 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 11:29   |
| 9M88305.D | CAL BNA@120PPM   |                  | OK, V-289386 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 11:52   |
| 9M88306.D | CAL BNA@80PPM    |                  | OK, V-289385 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 12:15   |
| 9M88307.D | CAL BNA@20PPM    |                  | OK, V-289383 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 12:38   |
| 9M88308.D | CAL BNA@.5PPM    |                  | OK, V-289391 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 13:02   |
| 9M88309.D | CAL BNA@50PPM    |                  | OK, V-289384 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 13:26   |
| 9M88310.D | ICV BNA@50PPM Is |                  | OK, V-289433 | JB 10/09/18 |            | Aqueous | 1        | 1       | 625\827   | 10/08 13:50   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Co      | Warning Possible Carry Over                     |
| Am  | Area Out                                          | Exm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/r20 not checked                     |
| B6m | Blank 600 series missing                          | Ein     | Totl/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for anh                          |
| B8m | Blank 8000 series missing                         | Eln     | Totl Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing ddt or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MSMSd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MSMSd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rn      | Can't Calculate Ddt                             |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Pmb with calmt.csv for init calibration check rfs   | S6      | 600 series surrogate out                        |
| Cme | Ending Cal missing for sample (8000 series)       | Iw      | Initial cal warning: In cal file <> method          | S8      | 8000 series surrogate out                       |
| Co  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Is6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS Year: 2018  
Analyst: AH/JB

1-1-7M95168

| Data File | Sample Number    | Flags            | Comments      | Reviewed By                         | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|------------------|------------------|---------------|-------------------------------------|------------|---------|----------|---------|-----------|---------------|
| 7M95168.D | CAL DFTPP        | Ee1=3.9;Ed1=4.5; | OK, V-282441  | JB 10/09/18                         |            | Aqueous | 1        | 1       |           | 10/08 12:40   |
| 7M95169.D | CAL BNA@10PPM    |                  | OK, V-289382  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 13:05   |
| 7M95170.D | CAL BNA@196PPM   |                  | OK, V-289388  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 13:29   |
| 7M95171.D | CAL BNA@160PPM   |                  | OK, V-289387  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 13:53   |
| 7M95172.D | CAL BNA@120PPM   |                  | OK, V-289386  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 14:16   |
| 7M95173.D | CAL BNA@80PPM    |                  | OK, V-289385  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 14:40   |
| 7M95174.D | CAL BNA@20PPM    |                  | OK, V-289383  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 15:03   |
| 7M95175.D | CAL BNA@2PPM     |                  | OK, V-289390  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 15:27   |
| 7M95176.D | CAL BNA@0.5PPM   |                  | OK, V-289391  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 15:50   |
| 7M95177.D | CAL BNA@50PPM    |                  | OK, V-289384  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 16:13   |
| 7M95178.D | ICV BNA@50PPM    |                  | OK, V-289433  | JB 10/09/18                         |            | Aqueous | 1        | 1       | 625\8270  | 10/08 16:37   |
| 7M95179.D | OMB71379         |                  | OK            | AH 10/09/18                         |            | OIL/OTH | 1        | 1       | 8270D     | 10/08 17:00   |
| 7M95180.D | OMB71380         |                  | OK            | AH 10/09/18                         |            | OIL/OTH | 1        | 1       | 8270D     | 10/08 17:23   |
| 7M95181.D | AD06831-001      | Sa8Sb8           | RE-EXTRACT    | JB 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 17:47   |
| 7M95182.D | AD06831-003      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 18:10   |
| 7M95183.D | AD06831-004      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 18:33   |
| 7M95184.D | AD06831-005      | Sa8Sb8           | RE-EXTRACT,OK | JB 10/09/18,AH 10/09/18,AH 10/09/18 | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 18:56   |
| 7M95185.D | AD06832-001      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 19:20   |
| 7M95186.D | AD06832-002      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 19:43   |
| 7M95187.D | AD06832-003      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 20:06   |
| 7M95188.D | AD06832-004      | Sa8              | OK OMB71380   | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 20:29   |
| 7M95189.D | AD06832-005      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 20:52   |
| 7M95190.D | 06832-005        |                  | OK            | AH 10/09/18                         |            | OIL/OTH | 1        | 1       | 8270D     | 10/08 21:15   |
| 7M95191.D | AD06832-006      | Sa8              | OK            | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 21:38   |
| 7M95192.D | AD06832-004(MS)  | Sa8              | OK OMB71380   | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 22:01   |
| 7M95193.D | AD06832-004(MSD) | Sa8              | OK OMB71380   | AH 10/09/18                         | BNA15-8270 | OIL/OTH | 1        | 1       | 8270D     | 10/08 22:24   |

Area Not Checked  
Area Out  
Blank 600 series missing  
Blank 8000 series missing  
Blank Not Found/Assigned  
Calibration Column 1 Out (600 Series)  
Calibration Column 1 Out (8000 Series)  
Calibration Column 2 Out (600 Series)  
Calibration Column 2 Out (8000 Series)  
600 series sample/blank did not have passing cal  
8000 series sample/blank did not have passing cal  
Endion Cal missing for sample (8000 series)  
Calibration Not Checked for sample/blank/eval

Extraction Performed Past Hold  
Solvent Extraction Date Missing/Not checked  
Toln/Solvent Extraction Date Missing/Not checked  
Toln Extraction Performed Outside of Hold  
Eval Time Exceeded  
Analysis Before Collection Date  
Sample Analyzed outside of hold time  
Initial cal 600 series failed Column 1 and or 2  
Initial cal 8000 series failed Column 1 and or 2  
Initial Cal Not Checked  
Pmb with calmt csv for init calibration check rfs  
Initial cal warning in cal file <> method  
Initial Cal Files Not Updated Properly for a sample

Warning Possible Carry Over  
Warning c30/c20 not checked  
C30/C20 failed for enh  
Eval Mix Failed  
Eval Mix Not Checked  
Eval Mix missing diff or endion  
Rst Out on MsMed (col1 and or col2) 600 series  
Rst Out on MsMed (col1 and or col2) 8000 series  
Retention Time Out Or %Diff Out  
Can't Calculate Dnff  
600 series surrogate out  
8000 series surrogate out  
Acid and or BN Surrogate Out (600 series)



## RUN LOG

Instrument GCMS-10Y Ver. 2018  
8101505 0685  
Analyst: AH/MB

1-1-10M71436

| Data File | Sample Number       | Flags            | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|---------------------|------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 10M71436  | CAL DFTPP           | Ee1=3.3;Ed1=1.8; | OK, V-282441 | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/19 09:05   |
| 10M71437  | CAL BNA@50PPM       |                  | OK, V-289384 | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 09:35   |
| 10M71438  | WMB71471            | Sa6Sa8           | RR           | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 10:13   |
| 10M71439  | WMB71471(MS)        | M18              | OK WMB71471  | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 10:35   |
| 10M71440  | SMB71470            |                  | OK           | AH 10/19/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 10:58   |
| 10M71441  | AD07093-001(T)      |                  | OK WMB71471  | AH 10/19/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/19 11:20   |
| 10M71442  | AD07093-001(T)(M    | Sa6Sa8M16M18     | OK WMB71471  | AH 10/19/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/19 11:42   |
| 10M71443  | AD07093-001(T)(M    | R16R18M16M18     | OK WMB71471  | AH 10/19/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/19 12:04   |
| 10M71444  | SMB71470            |                  | OK           | AH 10/19/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 12:26   |
| 10M71445  | AD07121-001         |                  | OK           | AH 10/19/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 12:48   |
| 10M71446  | WMB71471            | Sa6Sa8           | OK           | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 13:10   |
| 10M71447  | AD07121-002         |                  | OK           | AH 10/19/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 13:32   |
| 10M71448  | AD07121-003         |                  | OK           | AH 10/19/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 13:55   |
| 10M71449  | AD07121-004         |                  | OK           | AH 10/19/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 14:17   |
| 10M71450  | WMB71479            | Sa6Sa8           | OK           | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 14:39   |
| 10M71451  | AD07121-006         |                  | OK           | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 15:01   |
| 10M71452  | AD07121-007         |                  | OK           | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 15:23   |
| 10M71453  | AD07121-008         |                  | OK           | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/19 15:45   |
| 10M71454  | AD07037-001(10X)(   |                  | OK           | JB 10/22/18 | BN-8270    | Aqueous | 10       | 10      | 8270D     | 10/19 16:08   |
| 10M71455  | AD07037-002(20X)(Sd |                  | OK           | JB 10/22/18 | BN-8270    | Aqueous | 20       | 20      | 8270D     | 10/19 16:30   |
| 10M71456  | SMB71480            |                  | OK           | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 17:24   |
| 10M71457  | SMB71481            |                  | OK           | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 17:46   |
| 10M71458  | SMB71480(MS)        |                  | OK SMB71480  | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 18:08   |
| 10M71459  | AD07136-003         |                  | OK SMB71480  | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 18:30   |
| 10M71460  | AD07136-003(MS)     |                  | OK SMB71480  | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 18:52   |
| 10M71461  | AD07136-003(MSD)    |                  | OK SMB71480  | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:14   |
| 10M71462  | AD07185-007         |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/19 19:37   |

|                                                   |         |                                                     |         |                                                 |
|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Area Not Checked                                  | Ex      | Extraction Performed Past Hold                      | Ca      | Warning Possible Carry Over                     |
| Area Out                                          | Esm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                     |
| Blank 600 series missing                          | Ein     | Tolu/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for enh                          |
| Blank 8000 series missing                         | Eto     | Tolu Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                 |
| Blank Not Found/Assigned                          | Fv      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collecting Date                     | Evrc    | Eval Mix missing cdf or andrin                  |
| Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MSMSd (col1 and or col2) 600 series  |
| Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MSMSd (col1 and or col2) 8000 series |
| Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| 8000 series sample/blank did not have passing cal | Is      | Prob with calmt.csv for init calibration check rfs  | S6      | 600 series surrogate out                        |
| Ending Cal missing for sample (8000 series)       | Iv      | Initial cal warning. Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Calibration Not Checked for sample/blank/eval     | Iv      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and/or BN Surrogate Out (600 series)       |





## RUN LOG

Instrument: GCMS 5 Year: 2018  
8101509 0686  
Analysis Date

1-1-5M105870

| Data File | Sample Number       | Flags             | Comments                        | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|---------------------|-------------------|---------------------------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 5M105870  | CAL DFTPP           | Ee1=3.9;Ed1=0.99; | OK, V-282441                    | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/19 09:08   |
| 5M105871  | CAL BNA@50PPM       |                   | OK, V-289384                    | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 09:44   |
| 5M105872  | WMB71471            | Sa6Sa8            | OK                              | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 10:48   |
| 5M105873  | AD07120-001         |                   | OK                              | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 11:12   |
| 5M105874  | AD07120-002         |                   | OK                              | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 11:35   |
| 5M105875  | AD07115-001         |                   | OK                              | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 11:58   |
| 5M105876  | AD07115-002         |                   | OK                              | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 12:21   |
| 5M105877  | AD07118-001         |                   | OK                              | AH 10/19/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 12:44   |
| 5M105878  | AD07118-003         | Sa6Sb6            | REEXTRACT                       | AH 10/19/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 13:08   |
| 5M105879  | AD07118-005         | Sa6               | OK                              | AH 10/19/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 13:31   |
| 5M105880  | AD07118-007         | Sa6               | OK                              | AH 10/19/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 13:55   |
| 5M105881  | WMB71479            | Sa6Sa8            | OK                              | AH 10/19/18 |            | Aqueous | 1        | 1       | 625\827   | 10/19 14:23   |
| 5M105882  | AD07072-007(R)      |                   | OK                              | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 14:46   |
| 5M105883  | AD07081-015(R)      | Sb8               | OK, USE THIS RUN                | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 16:02   |
| 5M105884  | AD07081-017(R)      | Sb8               | SURRO. CONFIRMED, USE FIRST RUN | AH 10/19/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/19 16:25   |
| 5M105885  | AD07113-001(R)      | Sa6Ao             | RR                              | AH 10/19/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 16:48   |
| 5M105886  | AD07113-001(5X)(RSd |                   | SURR CONFIRMED                  | JB 10/22/18 | BNA-625.1  | Aqueous | 5        | 5       | 625       | 10/19 17:11   |
| 5M105887  | SMB71481            |                   | OK                              | AH 10/19/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 17:34   |
| 5M105888  | SMB71480            |                   | OK                              | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 17:57   |
| 5M105889  | SMB71481(MS)        |                   | OK SMB71481                     | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 18:21   |
| 5M105890  | AD07178-001         |                   | OK SMB71481                     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/19 18:43   |
| 5M105891  | AD07178-001(MS)     |                   | OK SMB71481                     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:06   |
| 5M105892  | AD07178-001(MSD)    |                   | OK SMB71481                     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:29   |
| 5M105893  | AD07178-002         |                   | OK                              | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:52   |
| 5M105894  | AD07113-001(R)      | Sa6Ao             | AREA CONFIRMED                  | JB 10/22/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/19 20:15   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | EsM     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                     |
| B6m | Blank 600 series missing                          | Flm     | Trk/Solvent Extraction Date Missing/Not check'd     | Cm      | C30/C20 failed for enb                          |
| B8m | Blank 8000 series missing                         | Elm     | Toto Extraction Performed Outside of Hold           | Evf     | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evnc    | Eval Mix missing dft or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Hc      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Pinch with calmt csv for init calibration check rfs | S6      | 600 series surrogate out                        |
| Cme | Ending Cal missing for sample (6000 series)       | Iw      | Initial cal warning. Init cal file <= method        | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Emmerly for a sample  | Sa6 Sb6 | Acid and LocBN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS Year: 2018  
Analyst: AH/JB

1-1-7M95304

| Data File | Sample Number | Flags            | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|---------------|------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 7M95304.D | CAL DFTPP     | Ee1=2.8;Ed1=1.1; | OK, V-282441 | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/19 09:03   |
| 7M95305.D | CAL BNA@50PPM |                  | OK, V-289384 | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\8270  | 10/19 09:41   |
| 7M95306.D | WMB71479(MS)  | Sa6Sa8           | OK WMB71479  | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\8270  | 10/19 14:26   |
| 7M95307.D | WMB71479      | Sa6Sa8           | RR           | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\8270  | 10/19 14:49   |

|     |                                                   |         |                                                     |          |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|----------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Co       | Warning Possible Carry Over                     |
| An  | Area Out                                          | EsM     | Solvent Extraction Date Missing/Not check'd         | CRN      | Warning c30/c20 not checked                     |
| R6m | Blank 600 series missing                          | Fin     | Teln/Solvent Extraction Date Missing/Not check'd    | Crn      | C30/C20 failed for enh                          |
| R8m | Blank 8000 series missing                         | Fin     | Teln Extraction Performed Outside of Hold           | Evd      | Eval Mix Failed                                 |
| Rof | Blank Not Found/Assigned                          | Fv      | Eval Time Exceeded                                  | Evc      | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evc      | Eval Mix missing diff or endrin                 |
| C18 | Calibration Column 1 Out (8000 Series)            | Hn      | Sample Analyzed outside of hold time                | R16 R26  | Ret Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28  | Ret Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Ro       | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn      | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Prob with calml csv for init calibration check ds   | S6       | 600 series surrogate out                        |
| Cme | Endinn Cal missing for sample (8000 series)       | Iw      | Initial cal warning for cal file <> method          | S8       | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Isa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS 5 Year: 2018  
8101509 0688  
Analysis Date

1-1-5M105895

| Data File | Sample Number         | Flags           | Comments                               | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|-----------------------|-----------------|----------------------------------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 5M105895  | CAL DFTPP             | Ee1=5;Ed1=1, 1, | OK, V-290101                           | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/22 07:18   |
| 5M105896  | CAL BNA@50PPM         |                 | OK, V-289384                           | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\827   | 10/22 07:52   |
| 5M105897  | AD06939-001(T)        | Eo              | OK WMB71479                            | JB 10/22/18 | BNPSPLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 08:35   |
| 5M105898  | AD06939-001(T)(M      | Eo              | OK WMB71479                            | JB 10/22/18 | BNPSPLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 08:58   |
| 5M105899  | AD06939-001(T)(M      | Eo              | OK WMB71479                            | JB 10/22/18 | BNPSPLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 09:21   |
| 5M105900  | AD07133-001           |                 | OK                                     | JB 10/22/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/22 09:44   |
| 5M105901  | AD07133-002           |                 | OK                                     | JB 10/22/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/22 10:07   |
| 5M105902  | AD07131-001           |                 | OK                                     | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 10:31   |
| 5M105903  | AD07131-002           |                 | OK                                     | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 10:54   |
| 5M105904  | AD07142-001           | Sb8             | OK                                     | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 11:17   |
| 5M105905  | AD07137-001           | Sa6Sb6          | RE-EXTRACT                             | JB 10/22/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/22 11:41   |
| 5M105906  | AD07137-003           |                 | OK                                     | JB 10/22/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/22 12:04   |
| 5M105907  | AD07137-005           | Sa6             | OK                                     | JB 10/22/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/22 12:28   |
| 5M105908  | AD06821-001(T)        | Sb8Eo           | OK                                     | JB 10/22/18 | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/22 12:52   |
| 5M105909  | AD06980-005(T)        | Eo              | OK                                     | JB 10/22/18 | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/22 13:15   |
| 5M105910  | EF-SPLP V-289066(     |                 | OK                                     | JB 10/22/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 13:38   |
| 5M105911  | WMB71496(MS)          | Sb6Sb8M18       | OK WMB71496                            | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\827   | 10/22 14:01   |
| 5M105912  | AD07157-001(T)        | Sa6Sb6Sa8Sb8    | OK, SURR CONFIRMED BY MS& MSD WMB71496 | JB 10/23/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 14:25   |
| 5M105913  | WMB71496              |                 | OK, DOUBLE SURR                        | JB 10/22/18 |            | Aqueous | 0.5      | 1       | 625\827   | 10/22 14:49   |
| 5M105914  | EF-1 V-289820(10/1Sb8 |                 | OK                                     | JB 10/22/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 15:12   |
| 5M105915  | AD07157-001(T)(M      | Sa6Sb6Sa8Sb8    | OK WMB71496                            | JB 10/23/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 15:36   |
| 5M105916  | AD07157-001(T)(M      | Sa6Sb6Sa8Sb8    | OK WMB71496                            | JB 10/23/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/22 15:59   |
| 5M105917  | AD07132-001(T)        | Sb8             | OK                                     | JB 10/23/18 | BNATCLP-82 | Aqueous | 1        | 1       | 8270D     | 10/22 16:22   |
| 5M105918  | AD06943-001(T)        | Eto             | OK, DOUBLE SURR                        | JB 10/23/18 | BNATCLP-82 | Aqueous | 0.5      | 1       | 8270D     | 10/22 16:45   |
| 5M105919  | EF-1 V-289820(10/1Sb8 |                 | OK                                     | JB 10/23/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 17:08   |
| 5M105920  | EF-1 V-289820(10/1Sb8 |                 | OK                                     | JB 10/23/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 17:31   |
| 5M105921  | EF-SPLP V-289066(     |                 | OK                                     | JB 10/23/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 17:54   |
| 5M105922  | EF-SPLP V-289066(     |                 | OK                                     | JB 10/23/18 |            | Aqueous | 1        | 10      | 8270D     | 10/22 18:18   |

|     |                                                   |         |                                                     |         |                                                  |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|--------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                      |
| An  | Area Out                                          | Exm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                      |
| B6m | Blank 600 series missing                          | Elm     | Tolu/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for enh                           |
| B8m | Blank 8000 series missing                         | Elm     | Tolu Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                  |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                             |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing ddt or endrin                   |
| C18 | Calibration Column 1 Out (8000 Series)            | Hn      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMetd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMetd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                  |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rln     | Can't Calculate Drift                            |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Prob with calcd cvv for init calibration check rfs  | S6      | 600 series surrogate out                         |
| Cme | Ending Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <= method         | S8      | 8000 series surrogate out                        |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)        |



## RUN LOG

Instrument: GCMS 10 Year 2018  
8101509 0689  
Analysis: AHND

1-1-10M71463

| Data File | Sample Number     | Flags     | Comments        | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|-------------------|-----------|-----------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 10M71463  | CAL DFTPP         | Ed1=0.72; | OK, V-290101    | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/22 07:18   |
| 10M71464  | CAL BNA@50PPM C16 |           | OK, V-289384    | JB 10/22/18 |            | Aqueous | 1        | 1       | 625\827   | 10/22 07:45   |
| 10M71465  | SMB71491(MS)      |           | OK SMB71491     | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/22 08:30   |
| 10M71466  | SMB71491          |           | OK              | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/22 08:52   |
| 10M71467  | AD07224-001       |           | OK SMB71491     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 09:14   |
| 10M71468  | AD07224-001(MS)   |           | OK SMB71491     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 09:36   |
| 10M71469  | AD07224-001(MSD)  |           | OK SMB71491     | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 09:59   |
| 10M71470  | AD07224-002       |           | OK              | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 10:21   |
| 10M71471  | AD07224-003       |           | OK              | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 10:43   |
| 10M71472  | AD07224-004       |           | OK              | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/22 11:05   |
| 10M71473  | AD07190-009       |           | OK              | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/22 11:27   |
| 10M71474  | AD07190-011       |           | OK              | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/22 11:50   |
| 10M71475  | AD07189-001       |           | OK              | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/22 12:12   |
| 10M71476  | AD07143-001       |           | OK              | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 12:34   |
| 10M71477  | AD07143-002       |           | OK              | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 12:56   |
| 10M71478  | AD07143-003       |           | OK              | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 13:18   |
| 10M71479  | AD07143-004       | Ao        | RR              | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 13:41   |
| 10M71480  | AD07157-002(T)    | Sa8       | OK              | JB 10/22/18 | BNATCLP-82 | Aqueous | 1        | 1       | 8270D     | 10/22 14:03   |
| 10M71481  | AD07157-003(T)    | Sa8Sb8    | OK              | JB 10/22/18 | BNATCLP-82 | Aqueous | 1        | 1       | 8270D     | 10/22 14:25   |
| 10M71482  | AD07157-004(T)    | Sa8       | RE-EXTRACT      | JB 10/22/18 | BNATCLP-82 | Aqueous | 1        | 1       | 8270D     | 10/22 14:47   |
| 10M71483  | AD07143-005       | Sb8       | OK              | JB 10/22/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 15:09   |
| 10M71484  | WMB71496          | C6f       | OK, DOUBLE SURR | JB 10/22/18 |            | Aqueous | 0.5      | 1       | 625\827   | 10/22 15:31   |
| 10M71485  | AD07022-012       | Sa8Esm    | OK              | JB 10/23/18 | BNA15-8270 | Aqueous | 1        | 1       | 8270D     | 10/22 15:53   |
| 10M71486  | AD07118-003(R)    | C6fSa6    | SURR CONFIRMED  | JB 10/23/18 | BNA-825.1  | Aqueous | 1        | 1       | 625       | 10/22 16:15   |
| 10M71487  | AD07143-004       | Ao        | AREA CONFIRMED  | JB 10/23/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/22 16:38   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Co      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Esm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                     |
| Bfm | Blank 600 series missing                          | Ein     | Tolu/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for anh                          |
| B8m | Blank 8000 series missing                         | Eto     | Tolu Extraction Performed Outside of Hold           | Evf     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Eync    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evrn    | Eval Mix missing ddt or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMed (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMed (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C6f | 8000 series sample/blank did not have passing cal | Iv      | Pmh with calmi csv for init calibration check rfs   | S6      | 600 series surrogate not                        |
| Cme | Ending Cal missing for sample (8000 series)       | Iw      | Initial cal warning: ini cal file > method          | S8      | 8000 series surrogate not                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS-9 Year 2018  
Analyst: AH/JB

1-1-9M88659

| Data File | Sample Number    | Flags            | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|------------------|------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 9M88659.D | CAL DFTPP        | Ee1=7.1;Ed1=5.4; | OK, V-282441 | JB 10/22/18 |            | Aqueous | 1        | 1       |           | 10/19 15:42   |
| 9M88660.D | CAL BNA@50PPM    |                  | OK, V-289384 | JB 10/22/18 |            | Aqueous | 1        | 1       | 6251827   | 10/19 16:02   |
| 9M88661.D | AD07079-016      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 16:43   |
| 9M88662.D | AD07079-017      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 17:06   |
| 9M88663.D | AD07116-005      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 17:30   |
| 9M88664.D | AD07116-003      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 17:52   |
| 9M88665.D | SMB71480         |                  | OK           | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 18:17   |
| 9M88666.D | SMB71481         |                  | OK           | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 18:40   |
| 9M88667.D | AD07116-001      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:03   |
| 9M88668.D | AD07116-002      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:27   |
| 9M88669.D | AD07116-004      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 19:50   |
| 9M88670.D | AD07079-013(3X)  |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 3        | 3       | 8270D     | 10/19 20:13   |
| 9M88671.D | AD07109-002      |                  | OK           | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 20:37   |
| 9M88672.D | AD07079-004      | Ocf              | RR 30X       | JB 10/22/18 | BNA15-8270 | Soil    | 1        | 1       | 8270D     | 10/19 21:00   |
| 9M88673.D | AD07079-002(3X)  | Ocf              | RR 10X       | JB 10/22/18 | BNA15-8270 | Soil    | 3        | 3       | 8270D     | 10/19 21:24   |
| 9M88674.D | AD07079-003(3X)  | Ocf              | RR 10X       | JB 10/22/18 | BNA15-8270 | Soil    | 3        | 3       | 8270D     | 10/19 21:47   |
| 9M88675.D | 07131-001        |                  | OK           | JB 10/22/18 |            | Soil    | 1        | 1       | 8270D     | 10/19 22:10   |
| 9M88676.D | AD07136-001      |                  | OK           | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 22:34   |
| 9M88677.D | AD07136-002      |                  | OK           | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 22:57   |
| 9M88678.D | AD07136-004      |                  | OK           | JB 10/22/18 | BNA20-8270 | Soil    | 1        | 1       | 8270D     | 10/19 23:20   |
| 9M88679.D | AD07159-001      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/19 23:44   |
| 9M88680.D | AD07161-002      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 00:07   |
| 9M88681.D | AD07161-004      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 00:31   |
| 9M88682.D | AD07161-006      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 00:54   |
| 9M88683.D | AD07161-009      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 01:17   |
| 9M88684.D | AD07177-001      |                  | OK           | JB 10/22/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/20 01:41   |
| 9M88685.D | AD07185-002      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 02:05   |
| 9M88686.D | AD07185-004      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 02:28   |
| 9M88687.D | AD07185-006      |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 1        | 1       | 8270D     | 10/20 02:51   |
| 9M88688.D | AD07185-001(3X)  |                  | OK           | JB 10/22/18 | BNA-8270   | Soil    | 3        | 3       | 8270D     | 10/20 03:15   |
| 9M88689.D | AD07185-003(3X)  |                  | OK, DIRTY    | JB 10/22/18 | BNA-8270   | Soil    | 3        | 3       | 8270D     | 10/20 03:38   |
| 9M88690.D | AD07185-005(3X)  | Ti8              | RR           | JB 10/22/18 | BNA-8270   | Soil    | 3        | 3       | 8270D     | 10/20 04:02   |
| 9M88691.D | AD07185-011(3X)  | Ti8              | RR           | JB 10/22/18 | BNA-8270   | Soil    | 3        | 3       | 8270D     | 10/20 04:25   |
| 9M88692.D | AD07152-001(10X) | Ti8              | RR           | JB 10/22/18 | BNA15-8270 | Soil    | 10       | 10      | 8270D     | 10/20 04:49   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Estm    | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                     |
| B6m | Blank 800 series missing                          | Ein     | Trdn/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for enh                          |
| B8m | Blank 8000 series missing                         | Ev      | Trdn Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing dft or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Ret Out on McMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Ret Out on McMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C8f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Print with calmt csv for init calibration check rts | S6      | 600 series surrogate out                        |
| Cme | Ending Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Int cal file <> method         | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Iv      | Initial Cal Files Not Updated Properly for a sample | Is6 Sh6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS-7  
8101509.0691  
Date: 10/23/2018  
Analyst: AH/JB

1-1-7M95310

| Data File | Sample Number | Flags             | Comments     | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|---------------|-------------------|--------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 7M95310.D | CAL DFTPP     | Ee1=1.9;Ed1=0.68; | OK, V-290101 | JB 10/23/18 |            | Aqueous | 1        | 1       |           | 10/23 08:10   |
| 7M95311.D | CAL BNA@50PPM |                   | OK, V-289384 | JB 10/23/18 |            | Aqueous | 1        | 1       | 625/827   | 10/23 08:34   |
| 7M95312.D | WMB71479      | Sa6Sa8            | OK           | JB 10/23/18 |            | Aqueous | 1        | 1       | 625/827   | 10/23 11:31   |
| 7M95313.D | WMB71497      | Sa6Sa8            | OK           | JB 10/23/18 |            | Aqueous | 1        | 1       | 625/827   | 10/23 11:54   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Ans | Area Not Checked                                  | Fn      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Fsm     | Solvent Extraction Date Missing/Not checked         | CRN     | Warning c30/c20 not checked                     |
| R6m | Blank 8000 series missing                         | Elm     | ToluSolvent Extraction Date Missing/Not checked     | Cn      | C30/C20 failed for eph                          |
| R8m | Blank 8000 series missing                         | Elm     | Tolu Extraction Performed Outside of Hold           | FvF     | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Fv      | Eval Time Exceeded                                  | Fvnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (8000 Series)            | Hb      | Analysis Before Collection Date                     | Fvm     | Eval Mix missing dil or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Hn      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMst (col1 and or col2) 8000 series |
| C26 | Calibration Column 2 Out (8000 Series)            | t16 t26 | Initial cal 8000 series failed Column 1 and or 2    | R18 R28 | Rnd Out on MsMst (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | t18 t28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 8000 series sample/blank did not have passing cal | Is      | Initial Cal Not Checked                             | Rn      | Can't Calculate Diff                            |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Prob with cal file for init calibration check rfs   | S6      | 8000 series surrogate out                       |
| Cma | Endrin Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/aval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6.Sb6 | Acid and or BN Surrogate Out (8000 series)      |



## RUN LOG

Instrument: GCMS-5 Year 2018  
8101509 0692  
Analyst: AH/JB

1-1-5M105923

| Data File | Sample Number    | Flags        | Comments            | Reviewed By              | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|------------------|--------------|---------------------|--------------------------|------------|---------|----------|---------|-----------|---------------|
| 5M105923. | CAL DFTPP        | Ed1=1.3;     | OK, V-290101        | JB 10/23/18              |            | Aqueous | 1        | 1       |           | 10/23 08:15   |
| 5M105924. | CAL BNA@50PPM    |              | OK, V-289384        | JB 10/23/18              |            | Aqueous | 1        | 1       | 625\827   | 10/23 08:44   |
| 5M105925. | WMB71497(MS)     | Sa6Sa8M18    | OK WMB71497         | JB 10/23/18              |            | Aqueous | 1        | 1       | 625\827   | 10/23 09:35   |
| 5M105926. | WMB71497         | Sa6Sa8       | RR                  | JB 10/23/18              |            | Aqueous | 1        | 1       | 625\827   | 10/23 09:58   |
| 5M105927. | AD07161-001      | Sa6Sb6Sa8Sb8 | RE-EXTRACT WMB71497 | JB 10/23/18              | BNA-8270   | Aqueous | 1        | 1       | 625\827   | 10/23 10:21   |
| 5M105928. | AD07161-001(MS)  |              | OK WMB71497         | JB 10/23/18              | BNA-8270   | Aqueous | 1        | 1       | 625\827   | 10/23 10:45   |
| 5M105929. | AD07161-001(MSD) | Sb6Sb8R16R18 | OK WMB71497         | JB 10/23/18              | BNA-8270   | Aqueous | 1        | 1       | 625\827   | 10/23 11:08   |
| 5M105930. | AD07150-001      |              | OK                  | JB 10/23/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 11:32   |
| 5M105931. | AD07150-002      |              | OK                  | JB 10/23/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 11:55   |
| 5M105932. | AD07150-003      |              | OK                  | JB 10/23/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 12:19   |
| 5M105933. | AD07149-008      |              | OK                  | JB 10/23/18              | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/23 12:42   |
| 5M105934. | WMB71497         |              | OK                  | JB 10/23/18              |            | Aqueous | 1        | 1       | 625\827   | 10/23 13:29   |
| 5M105935. | AD07142-003      | Sb8          | RE-EXTRACT          | JB 10/23/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 13:53   |
| 5M105936. | AD07142-004      | Sb8          | RE-EXTRACT          | JB 10/23/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 14:17   |
| 5M105937. | AD07249-006(T)   |              | OK WMB71506         | JB 10/23/18              | BNPAH-8270 | Aqueous | 1        | 1       | 625\827   | 10/23 14:40   |
| 5M105938. | AD07249-009(T)   | Sb8          | RE-EXTRACT          | JB 10/23/18              | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/23 15:03   |
| 5M105939. | AD07249-010(T)   | Sb8          | RE-EXTRACT          | JB 10/23/18, JB 10/24/18 | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/23 15:27   |
| 5M105940. | AD07142-005      | Sb8          | RE-EXTRACT          | JB 10/24/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 15:50   |
| 5M105941. | AD07142-006      | Sb8          | RE-EXTRACT          | JB 10/24/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 16:14   |
| 5M105942. | AD07142-007      | Sb8          | RE-EXTRACT          | JB 10/24/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 16:37   |
| 5M105943. | AD07142-008      | Sb8          | RE-EXTRACT          | JB 10/24/18              | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/23 17:00   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Exm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 not checked                     |
| B6m | Blank 600 series missing                          | Ein     | Tdn/Solvent Extraction Date Missing/Not check'd     | Cn      | C30/C20 failed for enh                          |
| B8m | Blank 8000 series missing                         | Ein     | Tdn Extraction Performed Outside of Hold            | EvF     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing dlt or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C8f | 600 series sample/blank did not have nassinn cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have nassinn cal | Iv      | Pmb with calret csv for init calibration check rts  | S6      | 600 series surrogate out                        |
| Cme | Endlin Cal mission for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Iy      | Initial Cal Files Not Labeled Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS Year: 2018  
8101509 0693  
Analyst: AH/JB

1-1-7M95314

| Data File | Sample Number | Flags             | Comments       | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|---------------|-------------------|----------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 7M95314.D | CAL DFTPP     | Ee1=1.7;Ed1=0.78; | OK, V-290101   | JB 10/24/18 |            | Aqueous | 1        | 1       |           | 10/24 08:10   |
| 7M95315.D | CAL BNA@50PPM |                   | OK, V-289384   | JB 10/24/18 |            | Aqueous | 1        | 1       | 625\827   | 10/24 08:33   |
| 7M95316.D | AD07142-009   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 09:09   |
| 7M95317.D | AD07161-003   | Sa8Sb8            | RE-EXTRACT     | JB 10/24/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/24 09:32   |
| 7M95318.D | AD07161-005   | Sa8Sb8            | RE-EXTRACT     | JB 10/24/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/24 09:55   |
| 7M95319.D | AD07161-007   | Sa8Sb8            | RE-EXTRACT     | JB 10/24/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/24 10:18   |
| 7M95320.D | AD07161-008   | Sb8Sa8            | RE-EXTRACT     | JB 10/24/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/24 10:41   |
| 7M95321.D | AD07165-002   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 11:04   |
| 7M95322.D | AD07165-003   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 11:27   |
| 7M95323.D | AD07165-004   |                   | OK             | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 11:50   |
| 7M95324.D | AD07165-005   | Sb8               | OK             | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 12:13   |
| 7M95325.D | AD07165-006   | Sb8               | OK             | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 12:36   |
| 7M95326.D | AD07165-007   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 12:59   |
| 7M95327.D | AD07165-008   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 13:22   |
| 7M95328.D | SMB71506      |                   | OK             | JB 10/24/18 |            | Aqueous | 1        | 1       | 625\827   | 10/24 13:45   |
| 7M95329.D | AD07165-009   | Sb8Ao             | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 14:08   |
| 7M95330.D | 07165-015     | AoRo              | NOT USED       | JB 10/24/18 |            | Aqueous | 1        | 1       | 625\827   | 10/24 14:31   |
| 7M95331.D | AD07165-010   | Sb8               | RE-EXTRACT     | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 14:54   |
| 7M95332.D | AD07263-001   |                   | OK             | JB 10/24/18 | BNPAH-8270 | Soil    | 1        | 1       | 8270D     | 10/24 15:17   |
| 7M95333.D | AD07165-011   | Sb8               | OK             | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 15:40   |
| 7M95334.D | AD07165-012   | Ao                | RR             | JB 10/24/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 16:03   |
| 7M95335.D | AD07165-013   | Sb8               | OK             | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 16:26   |
| 7M95336.D | AD07165-014   | Sb8               | OK             | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 16:49   |
| 7M95337.D | AD07165-015   | Sb8               | RE-EXTRACT     | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 17:12   |
| 7M95338.D | AD07165-012   | Ao                | AREA CONFIRMED | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/24 17:35   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | EsM     | Solvent Extraction Date Missing/Not checked         | CRN     | Warning c30/c20 not checked                     |
| B6m | Blank 600 series missing                          | Ein     | Toln/Solvent Extraction Date Missing/Not checked    | Cn      | C30/C20 failed for anh                          |
| B8m | Blank 8000 series missing                         | Ein     | Toln Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hb      | Analysis Before Collection Date                     | Evnc    | Eval Mix missing det or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Hn      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MSMSd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MSMSd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C8f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Dift                            |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Prob with calnt csv for init calibration check rts  | S5      | 600 series surrogate out                        |
| Cme | Endion Cal missing for sample (8000 series)       | Iw      | Initial cal warning. In cal file <> method          | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |





## RUN LOG

Instrument: 8101509-0694  
Date: 10/25/2018  
Analyst: AH/JB

1-1-5M105966

| Data File | Sample Number      | Flags           | Comments        | Reviewed By | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|--------------------|-----------------|-----------------|-------------|------------|---------|----------|---------|-----------|---------------|
| 5M105966  | CAL DFTPP          | Ee1=11;Ed1=2.7; | OK, V-290101    | JB 10/25/18 |            | Aqueous | 1        | 1       |           | 10/25 08:50   |
| 5M105967  | CAL BNA@50PPM      |                 | OK, V-289384    | JB 10/25/18 |            | Aqueous | 1        | 1       | 625\827   | 10/25 09:19   |
| 5M105968  | WMB71518(MS)       | M18             | OK WMB71518     | JB 10/25/18 |            | Aqueous | 1        | 1       | 625\827   | 10/25 10:04   |
| 5M105969  | WMB71518           |                 | OK              | JB 10/25/18 |            | Aqueous | 1        | 1       | 625\827   | 10/25 10:28   |
| 5M105970  | AD07188-009        |                 | OK              | JB 10/25/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/25 10:59   |
| 5M105971  | AD07185-008        |                 | OK              | JB 10/25/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/25 11:22   |
| 5M105972  | AD07252-002(T)     |                 | OK WMB71518     | JB 10/25/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/25 11:45   |
| 5M105973  | EF-1 V-289820(10/2 |                 | OK              | JB 10/25/18 |            | Aqueous | 1        | 10      | 8270D     | 10/25 12:08   |
| 5M105974  | AD07252-002(T)(M   |                 | OK WMB71518     | JB 10/25/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/25 12:32   |
| 5M105975  | AD07252-002(T)(M   |                 | OK WMB71518     | JB 10/25/18 | BNATCLP-82 | Aqueous | 1        | 1       | 625\827   | 10/25 12:55   |
| 5M105976  | AD07161-001(R)     |                 | OK              | JB 10/25/18 | BNA-8270   | Aqueous | 1        | 1       | 625\827   | 10/25 13:19   |
| 5M105977  | AD07142-003(R)     |                 | OK              | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/25 13:42   |
| 5M105978  | AD07142-004(R)     |                 | OK              | JB 10/25/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/25 14:05   |
| 5M105979  | AD07294-001        |                 | OK WMB71532     | JB 10/25/18 | BN15-8270  | Aqueous | 1        | 1       | 625\827   | 10/25 14:29   |
| 5M105980  | WMB71532           |                 | OK              | JB 10/25/18 |            | Aqueous | 1        | 1       | 625\827   | 10/25 14:53   |
| 5M105981  | AD07204-001        | Sa6Sb6          | RE-EXTRACT      | JB 10/26/18 | BNA-625.1  | Aqueous | 1        | 1       | 625       | 10/25 15:16   |
| 5M105982  | AD07205-001        | Sb8Sa8          | RE-EXTRACT      | JB 10/26/18 | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/25 15:39   |
| 5M105983  | AD07180-001        | Eo              | OK              | JB 10/26/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/25 16:03   |
| 5M105984  | AD07180-002        | Eo              | OK              | JB 10/26/18 | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/25 16:26   |
| 5M105985  | AD07186-009        | Eo              | OK              | JB 10/26/18 | BNPAH-8270 | Aqueous | 1        | 1       | 8270D     | 10/25 16:50   |
| 5M105986  | AD07207-009        |                 | OK              | JB 10/26/18 | BNA25-8270 | Aqueous | 1        | 1       | 8270D     | 10/25 17:13   |
| 5M105987  | AD07212-001        |                 | OK, DOUBLE SURR | JB 10/26/18 | BN-8270    | Aqueous | 0.5      | 1       | 8270D     | 10/25 17:37   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Ans | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Co      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Em      | Solvent Extraction Date Missing/Not checked         | CRN     | Warning C30/C20 not checked                     |
| B6m | Blank 600 series missing                          | Ein     | Td/Solvent Extraction Date Missing/Not checked      | Cm      | C30/C20 failed for enh                          |
| B8m | Blank 8000 series missing                         | Eln     | Tdn Extraction Performed Outside of Hold            | EvF     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing dft or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MSMet (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MSMet (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | lx      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | lv      | Prob with calnot.csv for init calibration check rfs | S6      | 600 series summate out                          |
| Cme | Ending Cal missing for sample (8000 series)       | lw      | Initial cal warning. ini cal file <> method         | S8      | 8000 series summate out                         |
| Co  | Calibration Not Checked for sample/blank/eval     | lx      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Summate Out (600 series)         |



## RUN LOG

Instrument: 8101509-0695  
Date: 10/26/2018  
Analyst: AH/JB

1-1-5M105988

| Data File | Sample Number     | Flags           | Comments                    | Reviewed By | Test Group  | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|-------------------|-----------------|-----------------------------|-------------|-------------|---------|----------|---------|-----------|---------------|
| 5M105988  | CAL DFTPP         | Ee1=19;Ed1=1.1; | OK, V-290101                | JB 10/26/18 |             | Aqueous | 1        | 1       |           | 10/26 08:09   |
| 5M105989  | CAL BNA@50PPM     |                 | OK, V-289384                | JB 10/26/18 |             | Aqueous | 1        | 1       | 625\827   | 10/26 08:35   |
| 5M105990  | WMB71532(MS)      | M16M18          | OK WMB71532                 | JB 10/26/18 |             | Aqueous | 1        | 1       | 625\827   | 10/26 09:22   |
| 5M105991  | AD07212-003       |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 09:45   |
| 5M105992  | AD07212-005       |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 10:08   |
| 5M105993  | AD07212-004       |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 10:32   |
| 5M105994  | AD07142-005(R)    |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 10:55   |
| 5M105995  | AD07142-006(R)    |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 11:18   |
| 5M105996  | AD07142-007(R)    |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 11:41   |
| 5M105997  | AD07142-008(R)    | Sb8             | SURR CONFIRMED              | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 12:05   |
| 5M105998  | AD07142-009(R)    |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 12:28   |
| 5M105999  | AD07294-001(MS)   | Sb6Sb8          | OK WMB71532                 | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 625\827   | 10/26 12:51   |
| 5M106000  | AD07294-001(MSD)  | Sb6Sb8          | OK WMB71532                 | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 625\827   | 10/26 13:14   |
| 5M106001  | WMB71537(MS)      |                 | OK FOR 8270 METHOD WMB71537 | JB 10/26/18 |             | Aqueous | 1        | 1       | 625\827   | 10/26 13:37   |
| 5M106002  | AD07212-006       |                 | OK                          | JB 10/26/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 14:00   |
| 5M106003  | AD07204-001(R)    | Sa6Sb6          | SURR CONFIRMED              | JB 10/26/18 | BNA-625.1   | Aqueous | 1        | 1       | 625       | 10/26 14:24   |
| 5M106004  | AD07205-001(R)    | Sb8Sa8          | SURR CONFIRMED              | JB 10/26/18 | BNA-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 14:47   |
| 5M106005  | WMB71537          |                 | OK                          | JB 10/29/18 |             | Aqueous | 1        | 1       | 625\827   | 10/26 15:10   |
| 5M106006  | EF- SPLP V-289965 |                 | OK                          | JB 10/29/18 |             | Aqueous | 1        | 10      | 8270D     | 10/26 15:36   |
| 5M106007  | AD07031-001(T)    | Eo              | OK WMB71537                 | JB 10/29/18 | BN-SPLP-827 | Aqueous | 1        | 1       | 625\827   | 10/26 15:59   |
| 5M106008  | AD07031-001(T)(M) | Sb6Sb8Eo        | OK WMB71537                 | JB 10/29/18 | BN-SPLP-827 | Aqueous | 1        | 1       | 625\827   | 10/26 16:22   |
| 5M106009  | AD07031-001(T)(M) | Sb6Sb8Eo        | OK WMB71537                 | JB 10/29/18 | BN-SPLP-827 | Aqueous | 1        | 1       | 625\827   | 10/26 16:46   |
| 5M106010  | AD07212-002       |                 | OK                          | JB 10/29/18 | BN-8270     | Aqueous | 1        | 1       | 8270D     | 10/26 17:10   |
| 5M106011  | AD07233-001       |                 | OK                          | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 17:33   |
| 5M106012  | AD07233-002       |                 | OK                          | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 17:56   |
| 5M106013  | AD07233-003       |                 | OK                          | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 18:19   |
| 5M106014  | AD07233-004       |                 | OK                          | JB 10/29/18 | BN15-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 18:42   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Co      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Em      | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning C30/C20 not checked                     |
| B6m | Blank 600 series missing                          | Elm     | Tcin/Solvent Extraction Date Missing/Not check'd    | Cm      | C30/C20 failed for ash                          |
| B8m | Blank 8000 series missing                         | Elo     | Tcin Extraction Performed Outside of Hold           | EvF     | Eval Mix Failed                                 |
| Bnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing ddt or endrin                  |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | H16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | H18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C6f | 600 series sample/blank did not have passing cal  | Is      | Initial Cal Not Checked                             | Rin     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have passing cal | Iv      | Prob with calmt csv for init calibration check rfs  | S6      | 600 series surrogate out                        |
| Cme | Ending Cal missing for sample (8000 series)       | Iw      | Initial cal warning: Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Co  | Calibration Not Checked for sample/blank/eval     | Ix      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |



## RUN LOG

Instrument: GCMS-7 Year: 2018  
Analyst: AH/JB

1-1-7M95341

| Data File | Sample Number  | Flags             | Comments           | Reviewed By                         | Test Group | Matrix  | Surr Dil | Sam Dil | Method(s) | Analysis Date |
|-----------|----------------|-------------------|--------------------|-------------------------------------|------------|---------|----------|---------|-----------|---------------|
| 7M95341.D | CAL DFTPP      | Ee1=1.6;Ed1=0.67; | OK, V-290101       | JB 10/26/18                         |            | Aqueous | 1        | 1       |           | 10/26 08:11   |
| 7M95342.D | CAL BNA@50PPM  |                   | OK, V-289384       | JB 10/26/18                         |            | Aqueous | 1        | 1       | 625\827   | 10/26 08:36   |
| 7M95343.D | SMB71534(MS)   |                   | OK SMB71534        | JB 10/26/18                         |            | Soil    | 1        | 1       | 8270D     | 10/26 09:26   |
| 7M95344.D | SMB71534       |                   | OK                 | JB 10/26/18                         |            | Soil    | 1        | 1       | 8270D     | 10/26 09:48   |
| 7M95345.D | WMB71532       |                   | OK                 | JB 10/26/18                         |            | Aqueous | 1        | 1       | 625\827   | 10/26 10:11   |
| 7M95346.D | AD07165-002(R) |                   | OK                 | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 10:35   |
| 7M95347.D | AD07165-003(R) |                   | OK                 | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 10:58   |
| 7M95348.D | AD07165-007(R) | Sb8               | SURR CONFIRMED     | JB 10/26/18,JB 10/29/18,JB 10/29/18 | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 11:20   |
| 7M95349.D | AD07165-008(R) | Sb8               | SURR CONFIRMED     | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 11:43   |
| 7M95350.D | AD07165-009(R) | Sb8               | OK, SURR CONFIRMED | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 12:06   |
| 7M95351.D | AD07165-010(R) | Sb8               | OK, SURR CONFIRMED | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 12:30   |
| 7M95352.D | AD07165-015(R) |                   | OK                 | JB 10/26/18                         | BN-8270    | Aqueous | 1        | 1       | 8270D     | 10/26 12:53   |
| 7M95353.D | AD07161-003(R) | Sa8               | OK, SURR CONFIRMED | JB 10/29/18                         | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 13:16   |
| 7M95354.D | AD07161-005(R) | Sa8               | OK                 | JB 10/29/18                         | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 13:38   |
| 7M95355.D | AD07161-007(R) |                   | OK                 | JB 10/29/18                         | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 14:01   |
| 7M95356.D | AD07161-008(R) | Sa8               | OK, SURR CONFIRMED | JB 10/29/18                         | BNA-8270   | Aqueous | 1        | 1       | 8270D     | 10/26 14:25   |
| 7M95357.D | WMB71537       |                   | OK                 | JB 10/29/18                         |            | Aqueous | 1        | 1       | 625\827   | 10/26 14:48   |
| 7M95358.D | AD07233-005    |                   | OK                 | JB 10/29/18                         | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/26 15:45   |
| 7M95359.D | AD07233-006    |                   | OK                 | JB 10/29/18                         | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/26 16:08   |
| 7M95360.D | AD07233-007    |                   | OK                 | JB 10/29/18                         | BN15-8270  | Aqueous | 1        | 1       | 8270D     | 10/26 16:31   |

|     |                                                   |         |                                                     |         |                                                 |
|-----|---------------------------------------------------|---------|-----------------------------------------------------|---------|-------------------------------------------------|
| Anc | Area Not Checked                                  | En      | Extraction Performed Past Hold                      | Cn      | Warning Possible Carry Over                     |
| An  | Area Out                                          | Esm     | Solvent Extraction Date Missing/Not check'd         | CRN     | Warning c30/c20 ... not checked                 |
| R6m | Blank 800 series missing                          | Ein     | Tdn/Solvent Extraction Date Missing/Not check'd     | Cm      | C30/C20 failed for enh                          |
| R8m | Blank 8000 series missing                         | Ein     | Tdn Extraction Performed Outside of Hold            | EvF     | Eval Mix Failed                                 |
| Rnf | Blank Not Found/Assigned                          | Ev      | Eval Time Exceeded                                  | Evnc    | Eval Mix Not Checked                            |
| C16 | Calibration Column 1 Out (600 Series)             | Hh      | Analysis Before Collection Date                     | Evrc    | Eval Mix missing drft or endrin                 |
| C18 | Calibration Column 1 Out (8000 Series)            | Ho      | Sample Analyzed outside of hold time                | R16 R26 | Rnd Out on MsMsd (col1 and or col2) 600 series  |
| C26 | Calibration Column 2 Out (600 Series)             | I16 I26 | Initial cal 600 series failed Column 1 and or 2     | R18 R28 | Rnd Out on MsMsd (col1 and or col2) 8000 series |
| C28 | Calibration Column 2 Out (8000 Series)            | I18 I28 | Initial cal 8000 series failed Column 1 and or 2    | Rn      | Retention Time Out Or %Diff Out                 |
| C8f | 600 series sample/blank did not have missing cal  | Is      | Initial Cal Not Checked                             | Rtn     | Can't Calculate Drift                           |
| C8f | 8000 series sample/blank did not have missing cal | Iv      | Pmb with calmt csv for init calibration check rfs   | S6      | 600 series surrogate out                        |
| Cme | Endrin Cal missing for sample (8000 series)       | Iw      | Initial cal warning. Ini cal file <> method         | S8      | 8000 series surrogate out                       |
| Cn  | Calibration Not Checked for sample/blank/eval     | Iv      | Initial Cal Files Not Updated Properly for a sample | Sa6 Sb6 | Acid and or BN Surrogate Out (600 series)       |

## Wet Chemistry Data

**Wet Chemistry Data  
Sample Data**

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids****TestGroupName: % Solids SM2540G****Project #: 8101509****TestGroup: %SOLIDS**

| Lab#        | Client SampleID | Matrix          | Dilution: | Result | Units:  | RL | Prep Date | Analysis Date | Received Date | Collect Date |
|-------------|-----------------|-----------------|-----------|--------|---------|----|-----------|---------------|---------------|--------------|
| AD07161-002 | SD-1-102018     | Sediment/Encore | 1         | 36     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-004 | SD-2-102018     | Sediment/Encore | 1         | 16     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-006 | SD-3-102018     | Sediment/Encore | 1         | 55     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |
| AD07161-009 | SD-4-102018     | Sediment/Encore | 1         | 30     | Percent |    |           | 10/18/18      | 10/17/18      | 10/17/18     |

**Wet Chemistry Data**  
**QC Data**

## % Solids Report

Analysis Type: SOLIDS-SS

BatchID: SOLIDS-SS-8519

| QcType | SampleID:   | Rounded<br>Result | Raw<br>Result | Units   | Tare<br>Weight | Wet<br>Weight | Dry<br>Weight | Analysis<br>Date | Analized<br>By | QC RPD | Rpd<br>Limit |
|--------|-------------|-------------------|---------------|---------|----------------|---------------|---------------|------------------|----------------|--------|--------------|
| DUP    | AD07149-017 | 87                | 87.45098      | Percent | 1.34           | 8.99          | 8.03          | 10/18/18         | jessica        | 1.2    | 5            |
| Sample | AD07145-001 | 85                | 84.89362      | Percent | 1.37           | 10.77         | 9.35          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-017 | 86                | 86.42937      | Percent | 1.34           | 10.33         | 9.11          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-018 | 86                | 85.96908      | Percent | 1.35           | 9.76          | 8.58          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-019 | 89                | 89.36709      | Percent | 1.33           | 9.23          | 8.39          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-020 | 87                | 86.73469      | Percent | 1.35           | 9.19          | 8.15          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-021 | 87                | 86.98413      | Percent | 1.34           | 7.64          | 6.82          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-022 | 90                | 90.20979      | Percent | 1.37           | 11.38         | 10.41         | 10/18/18         | jessica        |        |              |
| Sample | AD07149-023 | 79                | 79.06977      | Percent | 1.34           | 9.08          | 7.46          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-024 | 79                | 79.33579      | Percent | 1.37           | 6.79          | 5.67          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-025 | 88                | 87.81870      | Percent | 1.35           | 8.41          | 7.55          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-026 | 82                | 81.87050      | Percent | 1.37           | 8.32          | 7.06          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-027 | 87                | 86.78899      | Percent | 1.34           | 6.79          | 6.07          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-028 | 83                | 82.82078      | Percent | 1.36           | 10.79         | 9.17          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-029 | 91                | 90.83255      | Percent | 1.36           | 12.05         | 11.07         | 10/18/18         | jessica        |        |              |
| Sample | AD07149-030 | 90                | 90.26889      | Percent | 1.37           | 9.18          | 8.42          | 10/18/18         | jessica        |        |              |
| Sample | AD07149-031 | 91                | 91.29321      | Percent | 1.34           | 9.15          | 8.47          | 10/18/18         | jessica        |        |              |
| Sample | AD07161-002 | 36                | 35.98410      | Percent | 1.35           | 6.38          | 3.16          | 10/18/18         | jessica        |        |              |
| Sample | AD07161-004 | 16                | 15.75408      | Percent | 1.36           | 11.77         | 3.00          | 10/18/18         | jessica        |        |              |
| Sample | AD07161-006 | 55                | 55.13414      | Percent | 1.36           | 12.17         | 7.33          | 10/18/18         | jessica        |        |              |
| Sample | AD07161-009 | 30                | 29.76378      | Percent | 1.36           | 7.71          | 3.25          | 10/18/18         | jessica        |        |              |

\* - Indicates Failed Rpd Criteria





Last Page of Report

## Project: Harrison Sub Residency

**Client PO:** 128525

**Report To:** TRC Engineering  
1430 Broadway  
10th Floor  
New York, NY 10018

Attn: James Robinson

**Received Date:** 10/17/2018

**Report Date:** 11/26/2018

**Deliverables:** NYDOH-CatA

**Lab ID:** AD07118 AD07137 AD07161 AD07325

**Lab Project No:** 8101509

**REVISED**  
12/19/2018

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.

  
Robin Cousineau - Quality Assurance Director

OR

Jean Revolus - Laboratory Director

NJ (07071)  
PA (68-00463)

NY (ELAP11408)  
KY (90124)

CT (PH-0671)





THIS CATEGORY "A" REPORT  
IS NUMBERED FROM  
1 to 274

# HC Case Narrative

Client: TRC Engineering  
Project: Harrison Sub Residency

HC Project: 8101509

Hampton-Clarke (HC) received the following samples on 10/15/18, 10/16/18, 10/17/18, 10/18/18 & 10/23/18:

| <u>Client ID</u> | <u>HC Sample ID</u> | <u>Matrix</u>   | <u>Analysis</u>                                                                                                                                                                                                                               |
|------------------|---------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LMW-2-102018 U   | AD07118-001         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (625.1)*, Chloride (300.0 rev2.1), Cyanide (335.4)                                                                                                                                                       |
| LMW-2-102018 F   | AD07118-002         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)<br>Volatiles (624.1), BNA Semi-Volatile (625.1)*, Alkalinity-Total/Alkalinity-Bicarbonate/Alkalinity-Carbonate/p-Alkalinity (SM2320B-11), Chloride/Nitrate/Nitrite/Sulfate (300.0 rev2.1), Cyanide (335.4) |
| PC-1-10 2018 U   | AD07118-003         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)                                                                                                                                                                                                            |
| PC-1-10 2018 F   | AD07118-004         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (625.1)*, Chloride (300.0 rev2.1), Cyanide (335.4)                                                                                                                                                       |
| GW-DUP1-102018 U | AD07118-005         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)                                                                                                                                                                                                            |
| GW-DUP1-102018 F | AD07118-006         | Aqueous         | Volatile BTEX + MTBE (624.1), BNA Semi-Volatile (625.1)*, Alkalinity-Total/Alkalinity-Bicarbonate/Alkalinity-Carbonate/p-Alkalinity (SM2320B-11), Nitrate/Nitrite/Sulfate (300.0 rev2.1)                                                      |
| MW-11-102018 U   | AD07118-007         | Aqueous         | Metals Pair (200.7)                                                                                                                                                                                                                           |
| MW-11-102018 F   | AD07118-008         | Aqueous         | Volatiles (624.1)                                                                                                                                                                                                                             |
| TB-1             | AD07118-009         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (625.1)*, Chloride (300.0 rev2.1), Cyanide (335.4)                                                                                                                                                       |
| LMW-4-102018 U   | AD07137-001         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)                                                                                                                                                                                                            |
| LMW-4-102018 F   | AD07137-002         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (625.1)*, Chloride (300.0 rev2.1), Cyanide (335.4)                                                                                                                                                       |
| PC-2-102018 U    | AD07137-003         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)                                                                                                                                                                                                            |
| PC-2-102018 F    | AD07137-004         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (625.1)*, Chloride (300.0 rev2.1), Cyanide (335.4)                                                                                                                                                       |
| PC-3-102018 U    | AD07137-005         | Aqueous         | TAL Metals (200.7/200.8 and 245.1)                                                                                                                                                                                                            |
| PC-3-102018 F    | AD07137-006         | Aqueous         | Volatiles (624.1)                                                                                                                                                                                                                             |
| TB-2             | AD07137-007         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Hardness (200.7), Chloride (9056A), Cyanide (9012B)                                                                                                            |
| SW-1-102018      | AD07161-001         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Chloride (9056A), Cyanide (9012B)                                                                                                                              |
| SD-1-102018      | AD07161-002         | Sediment/Encore | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Hardness (200.7), Chloride (9056A), Cyanide (9012B)                                                                                                            |
| SW-2-102018      | AD07161-003         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Chloride (9056A), Cyanide (9012B)                                                                                                                              |
| SD-2-102018      | AD07161-004         | Sediment/Encore | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Hardness (200.7), Chloride (9056A), Cyanide (9012B)                                                                                                            |
| SW-3-102018      | AD07161-005         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Chloride (9056A), Cyanide (9012B)                                                                                                                              |
| SD-3-102018      | AD07161-006         | Sediment/Encore | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Hardness (200.7), Chloride (9056A), Cyanide (9012B)                                                                                                            |
| SW-DUP1-102018   | AD07161-007         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Hardness (200.7), Chloride (9056A), Cyanide (9012B)                                                                                                            |
| SW-4-102018      | AD07161-008         | Aqueous         | Volatiles (624.1), BNA Semi-Volatile (8270D)*, TAL Metals (6010D/6020B/7470A), Chloride (9056A), Cyanide (9012B)                                                                                                                              |
| SD-4-102018      | AD07161-009         | Sediment/Encore | Volatiles (624.1)                                                                                                                                                                                                                             |
| TB-3             | AD07161-010         | Aqueous         | Sulfide-Total (SM4500-S2F11)                                                                                                                                                                                                                  |
| PC-1-102018      | AD07325-001         | Aqueous         | Sulfide-Total (SM4500-S2F11)                                                                                                                                                                                                                  |
| MW-11-102018     | AD07325-002         | Aqueous         | Sulfide-Total (SM4500-S2F11)                                                                                                                                                                                                                  |
| GW-DUP1-102018   | AD07325-003         | Aqueous         | Sulfide-Total (SM4500-S2F11)                                                                                                                                                                                                                  |

*This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.*

\*Full Data deliverables were required for the BNA Semi-volatile parameters, the rest of the parameters are packaged under the Cat A deliverables, which are amended to the end of this report

### **Volatile Organic Analysis:**

Sample AD07161-002, 004, 006 and 009 were analyzed 1 day past the analysis holding time.

The Method Blank Spike for batch 73519 (sample AD07118-009) had a few compounds (Cyclohexane, Toluene, Ethylbenzene, 1,2,4-Trimethylbenzene, and p-Diethyl benzene) with recoveries above QC limits. Since the compounds recovered high, and these compounds were not detected in the sample, no further action was performed. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73432 (samples AD07118-001, 003 and 005) had a compound (Bromoform) with a recovery below QC limits. Since the compound recovered within range for the MS and MSD and was not detected in the samples, no further action was required. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73436 (samples AD07137-001 and 003) had two compounds (1,2-Dichloroethane and Benzene) with recoveries above QC limits. Since the compound recovered within range for the MS and MSD and was not detected in the samples, no further action was required. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73438 (sample AD07118-007 ) had a compound (Bromoform) with a recovery below QC limits. Bromoform is not a compound of interest for the sample, therefore no further action was required. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73438 (samples AD07137-005 and 007) had a compound (Bromoform) with a recovery below QC limits. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73460 (sample AD07161-010) had a compound (Dichlorofluoromethane) with a recovery above QC limits. Since the compound recovered within range for the MS and MSD and was not detected in the samples, no further action was required. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for soil batch 73545 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The Method Blank Spike for batch 73499 (samples AD07161-001, 003, 005, 007, 008, 007MS and 007MSD) had two compounds (1,3-Dichloropropane and Tetrachloroethene) with recoveries above QC limits. Since the compound recovered within range for the MS and MSD and was not detected in the samples, no further action was required. Please refer to the applicable Form 3 for the recoveries.

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batches 73438, 73499 and 73545 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

2-Chloroethylvinylether did not recover in the Matrix Spike and Matrix Spike Duplicate in batches 73432, 73436 and 73499 due to preservation of sample. 2-Chloroethylvinylether readily decomposes under acidic conditions. The recovery of 2-Chloroethylvinylether is within QC limits in the Laboratory Control Sample. Please refer to the applicable Form 3 for the recoveries.

QC sample MBS73545 had one surrogate recovery outside QC limits. Since the blank and samples met acceptance criteria, no further action was performed.. Please refer to the applicable Form 2 for the recoveries.

Sample AD07161-010 was originally analyzed under method 8260C. Upon report assembly, the sample was switched to method 624.1 to match the other samples in the sample delivery group. Since the sample was originally logged in for Method 8260C, it was evaluated for this method during analysis, however when the check standard was evaluated against 624.1 criteria,

it failed to recover within acceptance QC limits for Chloromethane and Dichlorofluoromethane. Please refer to the Form 7 for the recoveries.

**Base Neutral/Acid Extractable Analysis:**

See Full Deliverable section in the beginning of the report for Base Neutral/Acid Extractable data.

**Metals Analysis:**

Sample AD07161-002 and 004 were reported at a dilution for Manganese due to concentrations above the linear range.

The Post Spike, Matrix Spike and/or Matrix Spike Duplicate for batches 72824, 72842, 72844 and 72845 had recoveries outside QC limits. Please refer to the applicable Form 5/7 for the recoveries.

The RPD between the QC sample and the Method Replicate had recoveries outside QC limits in batch 72844. Please refer to the applicable Form 6/9 for the recoveries.

The MS/MSD RPD had recoveries outside QC limits in batch 72824, 72845 and 72844. Please refer to the applicable Form 6/9 for the recoveries.

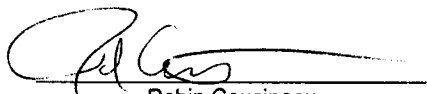
The serial dilution for batch 72844 is outside QC limits for one or more analytes. Please refer to the applicable Form 6/9 for the recoveries.

**Wet Chemistry Analysis:**

Samples AD07118-003, 005, AD07137-005, AD07161-005 and 007 were analyzed at a dilution for Chloride due to high concentration.

The Matrix Spike and/or Matrix Spike Duplicate for Sulfate, batch W-2251, had recoveries outside QC limits. Please refer to the QC section for the recoveries.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
Robin Cousineau  
Quality Assurance Director

Or

\_\_\_\_\_  
Jean Revolus  
Laboratory Director

11/21/2018  
\_\_\_\_\_  
Date









CHAIN OF CUSTODY  
RECORD

A Women-Owned, Disadvantaged, Small Business Enterprise

NEIACNJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

Project # (Lab Use Only)

Page 1 of 1

3) Reporting Requirements (Please Circle)

Turnaround

When Available:

1 Business Day (100%)\*

2 Business Days (75%)\*

3 Business Days (50%)\*

4 Business Days (35%)\*

5 Business Days (25%)\*

8 Business Days (Standard)

Other:

Report Type

Summary

Results + QC (Waste)

Reduced:

1) NJ 2) NY

1) PA 1) Other

NY Full (NY ASP Cat)

NY ASP Cat

Other:

Electronic Data Deliv.

NJ HazSite

Excel Reg. NJ (NY) PA

EnviroData

EQUIS:

1) 4-File 1) EZ

1) NYDEC

1) Region 2 or 5

Other:

Customer Information

1a) Customer: TRC Engineers

Address: 1430 Broadway 10th Fl

New York, NY 10018

1b) Email/Call/Fax/Ph: James.Brown@trcengineers.com

1c) Send Invoice to: HP Invoice Approval @ the solution, do-

1d) Send Report to: "

Project Information

2a) Project: Hampton SWS - Broadway

2b) Project Mgr: James Brown

2c) Project Location (City/State): Hampton, NY

2d) Quote/PO # (If Applicable): 108535

FOR LAB USE ONLY

Matrix Codes

DW - Drinking Water S - Soil A - Air  
GW - Ground Water SL - Sludge SW - Surface  
WW - Waste Water OL - Oil SP - Sediment  
OT - Other (please specify under item 9, Comments)

Batch # AD07161

| Lab Sample # | 4) Customer Sample ID | 5) Matrix | 6) Sample |      | Compos | Grab (G) | Sua | Chl | TAL | Cya | Hard |  |  |  |  |  | None | MeOH | En Core | NaOH | HCl | H2SO4 | HNO3 | Other | 9) Comments |
|--------------|-----------------------|-----------|-----------|------|--------|----------|-----|-----|-----|-----|------|--|--|--|--|--|------|------|---------|------|-----|-------|------|-------|-------------|
|              |                       |           | Date      | Time |        |          |     |     |     |     |      |  |  |  |  |  |      |      |         |      |     |       |      |       |             |
| 001          | SW-1-102018           | SW        | 10/17/18  | 1100 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 3    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 002          | SD-1-102018           | SD        |           | 1100 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 2    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 003          | SW-2-102018           | SW        |           | 1035 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 3    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 004          | SD-2-102018           | SD        |           | 1035 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 2    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 005          | SW-3-102018           | SW        |           | 1010 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 3    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 006          | SD-3-102018           | SD        |           | 1010 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 2    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 007          | SW-001-102018         | SW        |           | 1010 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 3    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 008          | SW-4-102018           | SW        |           | 0925 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 3    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |
| 009          | SD-4-102018           | SD        |           | 0925 |        | X        | X   | X   | X   | X   | X    |  |  |  |  |  | 2    | 1    | 1       | 1    | 1   | 1     | 1    |       |             |

10) Relinquished by: James Brown Accepted by: James Brown Date: 10/17/18 Time: 130

Additional Notes: Please batch all Harrison samples received from 10/15/18 thru 10/18/18 on same lab report. LCS for batch samples to be included w/ tomorrow's pickup along with other blank

Project-Specific Reporting Limits  
High Contaminant Concentrations  
NJ LSRP Project (also check boxes above/right)  
Cooler Temperature: 3.4/2.6

**Customer Information**  
1a) Customer: TEC Engineers  
Address: 1430 Broadway 10th Fl  
New York, NY 10018  
1b) Email/cell/Fax/PO: Jmohansar@tecsolutions.com  
1c) Send Invoice to: APRINQUE APPROVED TRESMANS.COM  
1d) Send Report to: " "

**Project Information**  
2a) Project: Harrison Sub-Residency  
2b) Project Mgr: Jones Robinson  
2c) Project Location (City/State): Harrison, NY  
2d) Quote/PO # (If Applicable): 138525

**When Available:**  
1 Business Day (100%)\*  
2 Business Days (75%)\*  
3 Business Days (50%)\*  
4 Business Days (35%)\*  
5 Business Days (25%)\*  
8 Business Days (Stand)  
Other: NY ASP CalA

**Report Type**  
Summary  
Results + QC (Waste)  
Reduced:  
[ ] NJ [ ] NY  
[ ] PA [ ] Other  
NJ Full / NY ASP CalA  
Other: NY ASP CalA

**Electronic Data Deliv.**  
NJ HazSite  
Excel Reg. NJ (NY) PA  
EnviroData  
ECUS:  
[ ] 4-File [ ] EZ  
[ ] NYDEC  
[ ] Region 2 or 5  
Other: " "

| FOR LAB USE ONLY<br>↓ |                                                                                                                                    | 7) Analysis (specify methods & parameter lists) |               |          |  |  |  |  |  |  |  | 8) # of Bottles |  |  |  |  |  |  |  |  |  | 9) Comments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------|----------|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Batch #               | Matrix Codes<br>DW - Drinking Water<br>GW - Ground Water<br>WW - Waste Water<br>OT - Other (please specify under item 9, Comments) | Sample Type                                     | Composite (C) | Grab (G) |  |  |  |  |  |  |  |                 |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

10) Relinquished by: [Signature] Accepted by: [Signature] Date: 10/18/18 Time: 14:00

11) Sampler (print name): Jones Robinson Date: 10/18/18

**Additional Notes**  
Please watch auto style report with der tharrison  
Sub-Residency samples received on 10/15-10/17/2018

**Comments, Notes, Special Requirements, HAZARDS**  
Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):  
BN or BNA (8270D SIM) ☐ VOC (8260C SIM or 8011) ☐ SPLP (BN, BNA, Metals) ☐ 1,4 Dioxane ☐  
Check if applicable:  
Project-Specific Reporting Limits ☐  
High Contaminant Concentrations ☐  
NJ LSRP Project (also check boxes above/right) ☐  
Please note NUMBERED items. If not completed your analytical work may be delayed.  
A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.  
Internal use: sampling plan (check box) HC [ ] or client [ ] FSP# 33

**Cooler Temperature**  
33

|                                           |                                    |
|-------------------------------------------|------------------------------------|
| Page <u>1802513</u> of <u>801509</u>      |                                    |
| 3) Reporting Requirements (Please Circle) |                                    |
| Turnaround                                | Report Type Electronic Data Deliv. |

|                        |                |                    |
|------------------------|----------------|--------------------|
| <b>When Available:</b> | <b>Summary</b> | <b>N.J. Hazsle</b> |
|------------------------|----------------|--------------------|

| 1 Business Day (100%)* | Results + QC (Waste) | Excel Reg. No NY JPA |
|------------------------|----------------------|----------------------|
|------------------------|----------------------|----------------------|

| 2 Business Days (75%)* | Reduced: | EnviroData |
|------------------------|----------|------------|
|------------------------|----------|------------|

|                        |               |        |
|------------------------|---------------|--------|
| 3 Business Days (50%)* | [ ] NJ [ ] NY | EQUIS: |
|------------------------|---------------|--------|

|                        |                                                                  |                                                             |
|------------------------|------------------------------------------------------------------|-------------------------------------------------------------|
| 4 Business Days (35%)* | <input type="checkbox"/> PA <input type="checkbox"/> Other _____ | <input type="checkbox"/> 4-File <input type="checkbox"/> EZ |
|------------------------|------------------------------------------------------------------|-------------------------------------------------------------|

|                       |                      |
|-----------------------|----------------------|
| 5 Business Days (75%) | NYDEC: <del>NY</del> |
|-----------------------|----------------------|

11 Position 2 or 5

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back with 1 ch

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**<=== Check If Contingent <===**

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2

### 9) Comments

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Source: *U.S. Census Bureau, Current Population Reports, 1990*

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# RDS

indicate which standa

### Google Temperature

W.

**may be delayed.**

**101 any agency:**

# PROJECT MODIFICATIONS

**Client:** TRC-NYC

**HC Project #:** 8101509

**Project:** Harrison Sub Residency

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-----  
maureen192.168.1.71  
11/7/2018 2:47:27 PM  
-----

Per James Robinson all Harrison COC's from 10/15/18 through 10/23/18 should be batched together in one report. (AD07118, AD07137, AD07161 & AD07325)  
MS 11/7/18

## CONDITION UPON RECEIPT

Batch Number AD07118

Entered By: Ricardo

Date Entered 10/15/2018 4:36:00 PM

---

- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 No Are the COC seals intact?
- 4 T0054 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).  
3.7
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 NA Other comments ...Specify  
The collection time on the bottle for LMW-2-102018 is 12:00.
- 14 NA Corrective actions (Specify item number and corrective action taken).

## CONDITION UPON RECEIPT

Batch Number AD07137

Entered By: Frantz

Date Entered 10/16/2018 4:11:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 No Are the COC seals intact?
- 4 T0056 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).  
3.0
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 NA Other comments ...Specify  
Two TB's were received. COC has TB-1 and TB-2 listed but TB-1 is crossed out. Per James Robinson via email dated 10/17/18 the COC received on 10/15/18 should have TB-1 listed on it. One of the TB's received with this COC will be labeled AD07118-009 as TB-1. MS 10/17/18
- 14 NA Corrective actions (Specify item number and corrective action taken).

## CONDITION UPON RECEIPT

Batch Number AD07161

Entered By: Frantz

Date Entered 10/17/2018 4:49:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 No Are the COC seals intact?
- 4 T0056 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).  
3.4,2.6
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? If no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 No Do the contents match the COC? If no, specify  
Two sets of samples received for SD-3-102018. One of the sets have a collection date/time of 10/17/18/ at 10:35.  
SD-2-102018 was not received.
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 Yes Other comments ...Specify  
Samples for voc received on 10/18/18 at 15:30 cooler temp=3.5
- 14 Yes Corrective actions (Specify item number and corrective action taken).  
9-Per James Robinson via email dated 10/19/18 the set of samples labeled SD-3-102018 with the collection date/time of 10/17/18/ at 10:35 should be labeled SD-2-102018. MS 10/19/18

## CONDITION UPON RECEIPT

Batch Number AD07325

Entered By: ricardo

Date Entered 10/25/2018 12:26:00 PM

- 
- |    |       |                                                                                                                    |
|----|-------|--------------------------------------------------------------------------------------------------------------------|
| 1  | Yes   | Is there a corresponding COC included with the samples?                                                            |
| 2  | Yes   | Are the samples in a container such as a cooler or ice chest?                                                      |
| 3  | No    | Are the COC seals intact?                                                                                          |
| 4  | T0054 | <--- Thermometer ID. Please specify the Temperature inside the container (in degC).<br>3.4                         |
| 5  | Yes   | Are the samples refrigerated (where required)/have they arrived on ice?                                            |
| 6  | Yes   | Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples: |
| 7  | Yes   | Are all of the sample bottles intact? If no, specify sample numbers broken/leaking                                 |
| 8  | Yes   | Are all of the sample labels or numbers legible? If no specify:                                                    |
| 9  | Yes   | Do the contents match the COC? If no, specify                                                                      |
| 10 | Yes   | Is there enough sample sent for the analyses listed on the COC? If no, specify:                                    |
| 11 | Yes   | Are samples preserved correctly?                                                                                   |
| 12 | Yes   | Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?            |
| 13 | NA    | Other comments ...Specify                                                                                          |
| 14 | NA    | Corrective actions (Specify item number and corrective action taken).                                              |



## PRESERVATION DOCUMENT

Batch Number AD07118

Entered By: Ricardo

Date Entered 10/15/2018 4:20:00 PM

| Lab#:       | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07118-001 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-001 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-001 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-002 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-003 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-003 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-003 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-004 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-005 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-005 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-005 | 120ML             | G                       | CN        | NAOH         | V272229              | 14 | HC849161 |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-006 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-007 | 40ML              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07118-007 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07118-007 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07118-008 | NA                | NA                      | NA        | NA           | NA                   | NA | NA       |

## PRESERVATION DOCUMENT

Batch Number AD07137

Entered By: Frantz

Date Entered 10/16/2018 4:11:00 PM

| Lab#:       | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07137-001 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-001 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-002 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-003 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-003 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-004 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-005 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07137-005 | 120ml             | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07137-006 | 1L                | P                       | METALS    | HNO3         | 192717               | 1  | HC849161 |
| AD07137-007 | 40ml              | G                       | VO        | HCL          | 189699               | 1  | HC849161 |

## PRESERVATION DOCUMENT

Batch Number AD07161

Entered By: Frantz

Date Entered 10/17/2018 4:51:00 PM

| Lab#:       | Container | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-----------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07161-001 | 40ML      | g                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-001 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-002 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-003 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-003 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-004 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-005 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-005 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-006 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-007 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-008 | 40ml      | G                       | VO        | HCL          | 189699               | 1  | HC849161 |
| AD07161-008 | 120ml     | G                       | CN        | NaOH         | V-272229             | 14 | HC849161 |
| AD07161-009 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |
| AD07161-010 | NA        | NA                      | NA        | NA           | NA                   | NA | NA       |

## PRESERVATION DOCUMENT

Batch Number AD07325

Entered By: ricardo

Date Entered 10/25/2018 12:30:00 PM

| Lab#:       | Container<br>Size | Container/Vial<br>Check | Parameter | Preservative | Preservative<br>Lot# | PH | pH Lot#  |
|-------------|-------------------|-------------------------|-----------|--------------|----------------------|----|----------|
| AD07325-001 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |
| AD07325-002 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |
| AD07325-003 | 500ML             | P                       | SULFIDE   | NAOH/ZNAC    | V272229\V277672      | 14 | HC849161 |

## Internal Chain of Custody

8101509 0018

| Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis   | Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis   |
|-------------|----------------|-------------------|-----------|---------|------------|-------------|----------------|-------------------|-----------|---------|------------|
| AD07118-001 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07118-007 | 10/16/18 08:34 | R31               | 1         | A       | PH/CHECK   |
| AD07118-001 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07118-007 | 10/16/18 08:36 | R31               | 2         | A       | NONE       |
| AD07118-001 | 10/16/18 08:34 | R31               | 1         | A       | PH/CHECK   | AD07118-007 | 10/16/18 08:36 | R31               | 3         | A       | NONE       |
| AD07118-001 | 10/16/18 08:36 | R31               | 2         | A       | NONE       | AD07118-007 | 10/22/18 08:45 | WP                | 3         | A       | VOA        |
| AD07118-001 | 10/16/18 08:36 | R31               | 3         | A       | NONE       | AD07118-007 | 10/16/18 13:18 | BCT               | 6         | A       | ALKALINITY |
| AD07118-001 | 10/22/18 08:45 | WP                | 3         | A       | VOA        | AD07118-007 | 10/15/18 16:48 | R12               | 7         | A       | NONE       |
| AD07118-001 | 10/15/18 16:48 | R12               | 4         | A       | NONE       | AD07118-007 | 10/15/18 16:48 | R12               | 8         | A       | NONE       |
| AD07118-001 | 10/22/18 10:37 | JW                | 4         | A       | IC         | AD07118-007 | 10/18/18 11:34 | JN                | 8         | A       | BN/BNA     |
| AD07118-001 | 10/22/18 17:14 | R12               | 4         | A       | NONE       | AD07118-007 | 10/15/18 16:48 | R12               | 9         | A       | NONE       |
| AD07118-001 | 10/15/18 16:48 | R12               | 5         | A       | NONE       | AD07118-007 | 10/15/18 16:59 | JW                | 9         | A       | IC         |
| AD07118-001 | 10/17/18 08:47 | JMP               | 5         | A       | CN         | AD07118-007 | 10/15/18 17:02 | R12               | 9         | A       | NONE       |
| AD07118-001 | 10/17/18 12:23 | R12               | 5         | A       | NONE       | AD07118-007 | 10/22/18 10:37 | JW                | 9         | A       | IC         |
| AD07118-001 | 10/15/18 16:48 | R12               | 6         | A       | NONE       | AD07118-007 | 10/22/18 17:14 | R12               | 9         | A       | NONE       |
| AD07118-001 | 10/18/18 11:34 | JN                | 6         | A       | BN/BNA     | AD07118-007 | 10/15/18 16:48 | R12               | 10        | A       | NONE       |
| AD07118-001 | 10/15/18 16:48 | R12               | 7         | A       | NONE       | AD07118-007 | 10/15/18 16:48 | R12               | 11        | A       | NONE       |
| AD07118-002 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07118-008 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   |
| AD07118-002 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07118-008 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      |
| AD07118-002 | 10/15/18 16:48 | R12               | 1         | A       | NONE       | AD07118-008 | 10/15/18 16:48 | R12               | 1         | A       | NONE       |
| AD07118-002 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    | AD07118-008 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    |
| AD07118-002 | 10/18/18 10:33 | R12               | 1         | A       | NONE       | AD07118-008 | 10/18/18 10:33 | R12               | 1         | A       | NONE       |
| AD07118-002 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       | AD07118-008 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       |
| AD07118-002 | 10/23/18 10:19 | R12               | 1         | A       | NONE       | AD07118-008 | 10/23/18 10:19 | R12               | 1         | A       | NONE       |
| AD07118-003 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07118-009 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   |
| AD07118-003 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07118-009 | 10/22/18 15:33 | RICAR             | 0         | M       | Login      |
| AD07118-003 | 10/16/18 08:36 | R31               | 1         | A       | NONE       | AD07118-009 | 10/29/18 14:35 | SG                | 1         | A       | VOA        |
| AD07118-003 | 10/22/18 08:45 | WP                | 1         | A       | VOA        | AD07137-001 | 10/16/18 16:05 | FRAN              | 0         | M       | Received   |
| AD07118-003 | 10/16/18 08:36 | R31               | 2         | A       | NONE       | AD07137-001 | 10/16/18 16:11 | FRAN              | 0         | M       | Login      |
| AD07118-003 | 10/16/18 08:36 | R31               | 3         | A       | NONE       | AD07137-001 | 10/16/18 17:24 | R12               | 1         | A       | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12               | 4         | A       | NONE       | AD07137-001 | 10/19/18 10:39 | JN                | 1         | A       | BN/BNA     |
| AD07118-003 | 10/22/18 10:37 | JW                | 4         | A       | IC         | AD07137-001 | 10/16/18 17:24 | R12               | 2         | A       | NONE       |
| AD07118-003 | 10/22/18 17:14 | R12               | 4         | A       | NONE       | AD07137-001 | 10/23/18 11:29 | JN                | 2         | A       | BN/BNA     |
| AD07118-003 | 10/15/18 16:48 | R12               | 5         | A       | NONE       | AD07137-001 | 10/16/18 17:24 | R12               | 3         | A       | NONE       |
| AD07118-003 | 10/15/18 16:59 | JW                | 5         | A       | IC         | AD07137-001 | 10/26/18 12:13 | JW                | 3         | A       | IC         |
| AD07118-003 | 10/15/18 17:02 | R12               | 5         | A       | NONE       | AD07137-001 | 10/26/18 17:18 | R12               | 3         | A       | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12               | 6         | A       | NONE       | AD07137-001 | 10/16/18 17:24 | R12               | 4         | A       | NONE       |
| AD07118-003 | 10/22/18 08:35 | JIR               | 6         | A       | BN         | AD07137-001 | 10/17/18 08:47 | JMP               | 4         | A       | CN         |
| AD07118-003 | 10/15/18 16:48 | R12               | 7         | A       | NONE       | AD07137-001 | 10/17/18 12:23 | R12               | 4         | A       | NONE       |
| AD07118-003 | 10/18/18 11:34 | JN                | 7         | A       | BN/BNA     | AD07137-001 | 10/16/18 17:58 | R31               | 5         | A       | NONE       |
| AD07118-003 | 10/16/18 13:18 | BCT               | 10        | A       | ALKALINITY | AD07137-001 | 10/16/18 17:58 | R31               | 6         | A       | NONE       |
| AD07118-003 | 10/15/18 16:48 | R12               | 11        | A       | NONE       | AD07137-001 | 10/22/18 08:45 | WP                | 6         | A       | VOA        |
| AD07118-003 | 10/17/18 08:47 | JMP               | 11        | A       | CN         | AD07137-001 | 10/16/18 17:58 | R31               | 7         | A       | NONE       |
| AD07118-003 | 10/17/18 12:23 | R12               | 11        | A       | NONE       | AD07137-002 | 10/16/18 16:05 | FRAN              | 0         | M       | Received   |
| AD07118-003 | 10/15/18 16:48 | R12               | 12        | A       | NONE       | AD07137-002 | 10/16/18 16:11 | FRAN              | 0         | M       | Login      |
| AD07118-003 | 10/15/18 16:48 | R12               | 13        | A       | NONE       | AD07137-002 | 10/16/18 17:24 | R12               | 1         | A       | NONE       |
| AD07118-004 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07137-002 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    |
| AD07118-004 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07137-002 | 10/18/18 10:33 | R12               | 1         | A       | NONE       |
| AD07118-004 | 10/15/18 16:48 | R12               | 1         | A       | NONE       | AD07137-002 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       |
| AD07118-004 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    | AD07137-002 | 10/23/18 10:19 | R12               | 1         | A       | NONE       |
| AD07118-004 | 10/18/18 10:33 | R12               | 1         | A       | NONE       | AD07137-003 | 10/16/18 16:05 | FRAN              | 0         | M       | Received   |
| AD07118-004 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       | AD07137-003 | 10/16/18 16:11 | FRAN              | 0         | M       | Login      |
| AD07118-004 | 10/23/18 10:19 | R12               | 1         | A       | NONE       | AD07137-003 | 10/16/18 17:58 | R31               | 1         | A       | NONE       |
| AD07118-005 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07137-003 | 10/22/18 08:45 | WP                | 1         | A       | VOA        |
| AD07118-005 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07137-003 | 10/16/18 17:58 | R31               | 2         | A       | NONE       |
| AD07118-005 | 10/16/18 08:36 | R31               | 1         | A       | NONE       | AD07137-003 | 10/16/18 17:58 | R31               | 3         | A       | NONE       |
| AD07118-005 | 10/22/18 08:45 | WP                | 1         | A       | VOA        | AD07137-003 | 10/16/18 17:24 | R12               | 4         | A       | NONE       |
| AD07118-005 | 10/16/18 08:36 | R31               | 2         | A       | NONE       | AD07137-003 | 10/16/18 17:24 | R12               | 5         | A       | NONE       |
| AD07118-005 | 10/16/18 08:34 | R31               | 3         | A       | PH/CHECK   | AD07137-003 | 10/19/18 10:39 | JN                | 5         | A       | BN/BNA     |
| AD07118-005 | 10/15/18 16:48 | R12               | 4         | A       | NONE       | AD07137-003 | 10/16/18 17:24 | R12               | 6         | A       | NONE       |
| AD07118-005 | 10/18/18 11:34 | JN                | 4         | A       | BN/BNA     | AD07137-003 | 10/26/18 12:13 | JW                | 6         | A       | IC         |
| AD07118-005 | 10/15/18 16:48 | R12               | 5         | A       | NONE       | AD07137-003 | 10/26/18 17:18 | R12               | 6         | A       | NONE       |
| AD07118-005 | 10/22/18 10:37 | JW                | 5         | A       | IC         | AD07137-003 | 10/17/18 08:47 | JMP               | 7         | A       | CN         |
| AD07118-005 | 10/22/18 10:38 | JW                | 5         | A       | IC         | AD07137-003 | 10/17/18 12:23 | R12               | 7         | A       | NONE       |
| AD07118-005 | 10/22/18 17:14 | R12               | 5         | A       | NONE       | AD07137-004 | 10/16/18 16:05 | FRAN              | 0         | M       | Received   |
| AD07118-005 | 10/15/18 16:48 | R12               | 6         | A       | NONE       | AD07137-004 | 10/16/18 16:11 | FRAN              | 0         | M       | Login      |
| AD07118-005 | 10/17/18 08:47 | JMP               | 6         | A       | CN         | AD07137-004 | 10/16/18 17:24 | R12               | 1         | A       | NONE       |
| AD07118-005 | 10/17/18 12:23 | R12               | 6         | A       | NONE       | AD07137-004 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    |
| AD07118-006 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07137-004 | 10/18/18 10:33 | R12               | 1         | A       | NONE       |
| AD07118-006 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07137-004 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       |
| AD07118-006 | 10/15/18 16:48 | R12               | 1         | A       | NONE       | AD07137-004 | 10/23/18 10:19 | R12               | 1         | A       | NONE       |
| AD07118-006 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG    | AD07137-005 | 10/16/18 16:05 | FRAN              | 0         | M       | Received   |
| AD07118-006 | 10/18/18 10:33 | R12               | 1         | A       | NONE       | AD07137-005 | 10/16/18 16:11 | FRAN              | 0         | M       | Login      |
| AD07118-006 | 10/23/18 10:18 | AM                | 1         | A       | tdwi       | AD07137-005 | 10/16/18 17:24 | R12               | 1         | A       | NONE       |
| AD07118-006 | 10/23/18 10:19 | R12               | 1         | A       | NONE       | AD07137-005 | 10/16/18 17:24 | R12               | 2         | A       | NONE       |
| AD07118-007 | 10/15/18 16:01 | RICAR             | 0         | M       | Received   | AD07137-005 | 10/19/18 10:39 | JN                | 2         | A       | BN/BNA     |
| AD07118-007 | 10/15/18 16:15 | RICAR             | 0         | M       | Login      | AD07137-005 | 10/16/18 17:24 | R12               | 3         | A       | NONE       |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## Internal Chain of Custody

8101509 0019

| Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis | Lab#:       | DateTime:      | Loc<br>or<br>User | Bot<br>Nu | A/<br>M | Analysis |
|-------------|----------------|-------------------|-----------|---------|----------|-------------|----------------|-------------------|-----------|---------|----------|
| AD07137-005 | 10/26/18 12:13 | JW                | 3         | A       | IC       | AD07161-003 | 10/19/18 09:10 | AM                | 3         | M       | TDWI/HG  |
| AD07137-005 | 10/26/18 17:18 | R12               | 3         | A       | NONE     | AD07161-003 | 10/19/18 10:46 | R12               | 3         | A       | NONE     |
| AD07137-005 | 10/16/18 17:24 | R12               | 4         | A       | NONE     | AD07161-003 | 10/26/18 17:18 | R12               | 4         | A       | NONE     |
| AD07137-005 | 10/17/18 08:47 | JMP               | 4         | A       | CN       | AD07161-003 | 10/17/18 17:18 | R12               | 5         | A       | NONE     |
| AD07137-005 | 10/17/18 12:23 | R12               | 4         | A       | NONE     | AD07161-003 | 10/26/18 13:48 | JW                | 5         | A       | IC       |
| AD07137-005 | 10/16/18 17:58 | R31               | 5         | A       | NONE     | AD07161-003 | 10/19/18 09:13 | R31               | 6         | A       | NONE     |
| AD07137-005 | 10/16/18 17:58 | R31               | 6         | A       | NONE     | AD07161-003 | 10/19/18 09:10 | R31               | 7         | A       | PH/CHECK |
| AD07137-005 | 10/22/18 08:45 | WP                | 6         | A       | VOA      | AD07161-003 | 10/19/18 09:13 | R31               | 8         | A       | NONE     |
| AD07137-005 | 10/16/18 17:58 | R31               | 7         | A       | NONE     | AD07161-003 | 10/27/18 15:55 | SG                | 8         | A       | VOA      |
| AD07137-006 | 10/16/18 16:05 | FRAN              | 0         | M       | Received | AD07161-004 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07137-006 | 10/16/18 16:11 | FRAN              | 0         | M       | Login    | AD07161-004 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |
| AD07137-006 | 10/16/18 17:24 | R12               | 1         | A       | NONE     | AD07161-004 | 10/17/18 17:18 | R12               | 1         | A       | NONE     |
| AD07137-006 | 10/18/18 09:32 | AM                | 1         | M       | TDWI/HG  | AD07161-004 | 10/17/18 21:39 | PA                | 1         | A       | mix      |
| AD07137-006 | 10/18/18 10:33 | R12               | 1         | A       | NONE     | AD07161-004 | 10/17/18 21:39 | R12               | 1         | A       | NONE     |
| AD07137-006 | 10/23/18 10:18 | AM                | 1         | A       | tdwi     | AD07161-004 | 10/18/18 07:50 | JMP               | 1         | M       | solids   |
| AD07137-006 | 10/23/18 10:19 | R12               | 1         | A       | NONE     | AD07161-004 | 10/18/18 09:20 | R12               | 1         | A       | NONE     |
| AD07137-007 | 10/16/18 16:05 | FRAN              | 0         | M       | Received | AD07161-004 | 10/18/18 10:17 | BA                | 1         | A       | TDSI/HG  |
| AD07137-007 | 10/16/18 16:11 | FRAN              | 0         | M       | Login    | AD07161-004 | 10/18/18 12:57 | BA                | 1         | A       | R12      |
| AD07137-007 | 10/16/18 17:58 | R31               | 1         | A       | NONE     | AD07161-004 | 10/18/18 14:51 | JW                | 1         | A       | ic       |
| AD07137-007 | 10/16/18 17:58 | R31               | 2         | A       | NONE     | AD07161-004 | 10/19/18 11:08 | LV                | 1         | A       | BN/BNA   |
| AD07137-007 | 10/22/18 08:45 | WP                | 2         | A       | VOA      | AD07161-004 | 10/19/18 11:08 | R12               | 1         | A       | NONE     |
| AD07137-007 | 10/23/18 10:53 | WP                | 2         | A       | VOA      | AD07161-004 | 10/22/18 08:49 | JMP               | 1         | A       | cn       |
| AD07137-007 | 10/16/18 17:58 | R31               | 3         | A       | NONE     | AD07161-004 | 10/23/18 10:17 | AM                | 1         | A       | tdsi/hg  |
| AD07161-001 | 10/17/18 16:15 | FRAN              | 0         | M       | Received | AD07161-004 | 10/23/18 10:19 | R12               | 1         | A       | NONE     |
| AD07161-001 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    | AD07161-004 | 10/18/18 16:11 | F19               | 3         | A       | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12               | 1         | A       | NONE     | AD07161-004 | 10/30/18 16:48 | SG                | 3         | A       | VOA      |
| AD07161-001 | 10/22/18 12:14 | JN                | 1         | A       | BN/BNA   | AD07161-004 | 10/18/18 16:10 | R21               | 4         | A       | NONE     |
| AD07161-001 | 10/22/18 13:56 | R12               | 1         | A       | NONE     | AD07161-004 | 10/19/18 11:42 | WP                | 4         | A       | VOA      |
| AD07161-001 | 10/24/18 12:51 | JN                | 1         | A       | BN/BNA   | AD07161-004 | 10/19/18 12:47 | R31               | 4         | A       | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12               | 2         | A       | NONE     | AD07161-004 | 10/18/18 16:11 | F19               | 5         | A       | NONE     |
| AD07161-001 | 10/22/18 12:14 | JN                | 2         | A       | BN/BNA   | AD07161-004 | 10/26/18 12:51 | WP                | 5         | A       | VOA      |
| AD07161-001 | 10/17/18 17:18 | R12               | 3         | A       | NONE     | AD07161-005 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07161-001 | 10/18/18 09:32 | AM                | 3         | M       | TDWI/HG  | AD07161-005 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |
| AD07161-001 | 10/18/18 10:33 | R12               | 3         | A       | NONE     | AD07161-005 | 10/17/18 17:18 | R12               | 1         | A       | NONE     |
| AD07161-001 | 10/19/18 09:10 | AM                | 3         | M       | TDWI/HG  | AD07161-005 | 10/25/18 12:36 | JN                | 1         | A       | BN/BNA   |
| AD07161-001 | 10/19/18 10:46 | R12               | 3         | A       | NONE     | AD07161-005 | 10/17/18 17:18 | R12               | 2         | A       | NONE     |
| AD07161-001 | 10/17/18 17:18 | R12               | 4         | A       | NONE     | AD07161-005 | 10/22/18 12:14 | JN                | 2         | A       | BN/BNA   |
| AD07161-001 | 10/26/18 13:48 | JW                | 4         | A       | IC       | AD07161-005 | 10/17/18 17:18 | R12               | 3         | A       | NONE     |
| AD07161-001 | 10/26/18 17:18 | R12               | 4         | A       | NONE     | AD07161-005 | 10/26/18 13:48 | JW                | 3         | A       | IC       |
| AD07161-001 | 10/17/18 17:18 | R12               | 5         | A       | NONE     | AD07161-005 | 10/26/18 17:18 | R12               | 3         | A       | NONE     |
| AD07161-001 | 10/19/18 09:10 | R31               | 6         | A       | PH/CHECK | AD07161-005 | 10/17/18 17:18 | R12               | 4         | A       | NONE     |
| AD07161-001 | 10/19/18 09:13 | R31               | 7         | A       | NONE     | AD07161-005 | 10/18/18 09:32 | AM                | 4         | M       | TDWI/HG  |
| AD07161-001 | 10/27/18 15:55 | SG                | 7         | A       | VOA      | AD07161-005 | 10/18/18 10:33 | R12               | 4         | A       | NONE     |
| AD07161-001 | 10/19/18 09:13 | R31               | 8         | A       | NONE     | AD07161-005 | 10/19/18 09:10 | AM                | 4         | M       | TDWI/HG  |
| AD07161-002 | 10/17/18 16:15 | FRAN              | 0         | M       | Received | AD07161-005 | 10/19/18 10:46 | R12               | 4         | A       | NONE     |
| AD07161-002 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    | AD07161-005 | 10/17/18 17:18 | R12               | 5         | A       | NONE     |
| AD07161-002 | 10/17/18 17:18 | R12               | 2         | A       | NONE     | AD07161-005 | 10/19/18 09:13 | R31               | 6         | A       | NONE     |
| AD07161-002 | 10/17/18 21:39 | R12               | 2         | A       | NONE     | AD07161-005 | 10/27/18 15:55 | SG                | 6         | A       | VOA      |
| AD07161-002 | 10/17/18 21:39 | PA                | 2         | A       | mix      | AD07161-005 | 10/19/18 09:13 | R31               | 7         | A       | NONE     |
| AD07161-002 | 10/18/18 07:50 | JMP               | 2         | M       | solids   | AD07161-005 | 10/19/18 09:10 | R31               | 8         | A       | PH/CHECK |
| AD07161-002 | 10/18/18 09:20 | R12               | 2         | A       | NONE     | AD07161-006 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07161-002 | 10/18/18 10:17 | BA                | 2         | A       | TDSI/HG  | AD07161-006 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |
| AD07161-002 | 10/18/18 12:57 | BA                | 2         | A       | R12      | AD07161-006 | 10/17/18 17:18 | R12               | 1         | A       | NONE     |
| AD07161-002 | 10/18/18 14:51 | JW                | 2         | A       | ic       | AD07161-006 | 10/23/18 10:17 | AM                | 1         | A       | tdsi/hg  |
| AD07161-002 | 10/19/18 11:08 | R12               | 2         | A       | NONE     | AD07161-006 | 10/23/18 10:19 | R12               | 1         | A       | NONE     |
| AD07161-002 | 10/19/18 11:08 | LV                | 2         | A       | BN/BNA   | AD07161-006 | 10/17/18 17:18 | R12               | 2         | A       | NONE     |
| AD07161-002 | 10/22/18 08:49 | JMP               | 2         | A       | cn       | AD07161-006 | 10/17/18 21:39 | R12               | 2         | A       | NONE     |
| AD07161-002 | 10/23/18 10:17 | AM                | 2         | A       | tdsi/hg  | AD07161-006 | 10/17/18 21:39 | PA                | 2         | A       | mix      |
| AD07161-002 | 10/23/18 10:19 | R12               | 2         | A       | NONE     | AD07161-006 | 10/18/18 07:50 | JMP               | 2         | M       | solids   |
| AD07161-002 | 10/18/18 16:10 | R21               | 3         | A       | NONE     | AD07161-006 | 10/18/18 09:20 | R12               | 2         | A       | NONE     |
| AD07161-002 | 10/19/18 11:42 | WP                | 3         | A       | VOA      | AD07161-006 | 10/18/18 10:17 | BA                | 2         | A       | TDSI/HG  |
| AD07161-002 | 10/19/18 12:47 | R31               | 3         | A       | NONE     | AD07161-006 | 10/18/18 12:57 | BA                | 2         | A       | R12      |
| AD07161-002 | 10/18/18 16:11 | F19               | 4         | A       | NONE     | AD07161-006 | 10/18/18 14:51 | JW                | 2         | A       | ic       |
| AD07161-002 | 10/26/18 12:51 | WP                | 4         | A       | VOA      | AD07161-006 | 10/19/18 11:08 | R12               | 2         | A       | NONE     |
| AD07161-002 | 10/30/18 16:48 | SG                | 4         | A       | VOA      | AD07161-006 | 10/19/18 11:08 | LV                | 2         | A       | BN/BNA   |
| AD07161-002 | 10/18/18 16:11 | F19               | 5         | A       | NONE     | AD07161-006 | 10/22/18 08:49 | JMP               | 2         | A       | cn       |
| AD07161-003 | 10/17/18 16:15 | FRAN              | 0         | M       | Received | AD07161-006 | 10/18/18 16:11 | F19               | 3         | A       | NONE     |
| AD07161-003 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    | AD07161-006 | 10/30/18 16:48 | SG                | 3         | A       | VOA      |
| AD07161-003 | 10/17/18 17:18 | R12               | 1         | A       | NONE     | AD07161-006 | 10/18/18 16:10 | R21               | 4         | A       | NONE     |
| AD07161-003 | 10/22/18 12:14 | JN                | 1         | A       | BN/BNA   | AD07161-006 | 10/19/18 11:42 | WP                | 4         | A       | VOA      |
| AD07161-003 | 10/17/18 17:18 | R12               | 2         | A       | NONE     | AD07161-006 | 10/19/18 12:47 | R31               | 4         | A       | NONE     |
| AD07161-003 | 10/25/18 12:36 | JN                | 2         | A       | BN/BNA   | AD07161-006 | 10/18/18 16:11 | F19               | 5         | A       | NONE     |
| AD07161-003 | 10/17/18 17:18 | R12               | 3         | A       | NONE     | AD07161-006 | 10/26/18 12:51 | WP                | 5         | A       | VOA      |
| AD07161-003 | 10/18/18 09:32 | AM                | 3         | M       | TDWI/HG  | AD07161-007 | 10/17/18 16:15 | FRAN              | 0         | M       | Received |
| AD07161-003 | 10/18/18 10:33 | R12               | 3         | A       | NONE     | AD07161-007 | 10/17/18 16:42 | FRAN              | 0         | M       | Login    |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## Internal Chain of Custody

8101509 0020

| Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis |
|-------------|----------------|-------------|--------|-----|----------|
| AD07161-007 | 10/17/18 17:18 | R12         | 1      | A   | NONE     |
| AD07161-007 | 10/22/18 12:14 | JN          | 1      | A   | BN/BNA   |
| AD07161-007 | 10/17/18 17:18 | R12         | 2      | A   | NONE     |
| AD07161-007 | 10/25/18 12:36 | JN          | 2      | A   | BN/BNA   |
| AD07161-007 | 10/17/18 17:18 | R12         | 3      | A   | NONE     |
| AD07161-007 | 10/18/18 09:32 | AM          | 3      | M   | TDWI/HG  |
| AD07161-007 | 10/18/18 10:33 | R12         | 3      | A   | NONE     |
| AD07161-007 | 10/19/18 09:10 | AM          | 3      | M   | TDWI/HG  |
| AD07161-007 | 10/19/18 10:46 | R12         | 3      | A   | NONE     |
| AD07161-007 | 10/17/18 17:18 | R12         | 4      | A   | NONE     |
| AD07161-007 | 10/26/18 13:48 | JW          | 4      | A   | IC       |
| AD07161-007 | 10/26/18 17:18 | R12         | 4      | A   | NONE     |
| AD07161-007 | 10/17/18 17:18 | R12         | 5      | A   | NONE     |
| AD07161-007 | 10/19/18 09:13 | R31         | 6      | A   | NONE     |
| AD07161-007 | 10/27/18 15:55 | SG          | 6      | A   | VOA      |
| AD07161-007 | 10/19/18 09:13 | R31         | 7      | A   | NONE     |
| AD07161-007 | 10/19/18 09:10 | R31         | 8      | A   | PH/CHECK |
| AD07161-008 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07161-008 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |
| AD07161-008 | 10/17/18 17:18 | R12         | 1      | A   | NONE     |
| AD07161-008 | 10/26/18 13:48 | JW          | 1      | A   | IC       |
| AD07161-008 | 10/26/18 17:18 | R12         | 1      | A   | NONE     |
| AD07161-008 | 10/17/18 17:18 | R12         | 2      | A   | NONE     |
| AD07161-008 | 10/17/18 17:18 | R12         | 3      | A   | NONE     |
| AD07161-008 | 10/22/18 12:14 | JN          | 3      | A   | BN/BNA   |
| AD07161-008 | 10/17/18 17:18 | R12         | 4      | A   | NONE     |
| AD07161-008 | 10/25/18 12:36 | JN          | 4      | A   | BN/BNA   |
| AD07161-008 | 10/17/18 17:18 | R12         | 5      | A   | NONE     |
| AD07161-008 | 10/18/18 09:32 | AM          | 5      | M   | TDWI/HG  |
| AD07161-008 | 10/18/18 10:33 | R12         | 5      | A   | NONE     |
| AD07161-008 | 10/19/18 09:10 | AM          | 5      | M   | TDWI/HG  |
| AD07161-008 | 10/19/18 10:46 | R12         | 5      | A   | NONE     |
| AD07161-008 | 10/19/18 09:13 | R31         | 6      | A   | NONE     |
| AD07161-008 | 10/27/18 15:55 | SG          | 6      | A   | VOA      |
| AD07161-008 | 10/19/18 09:13 | R31         | 7      | A   | NONE     |
| AD07161-008 | 10/19/18 09:10 | R31         | 8      | A   | PH/CHECK |
| AD07161-009 | 10/17/18 16:15 | FRAN        | 0      | M   | Received |
| AD07161-009 | 10/17/18 16:42 | FRAN        | 0      | M   | Login    |
| AD07161-009 | 10/17/18 17:18 | R12         | 4      | A   | NONE     |
| AD07161-009 | 10/17/18 17:18 | R12         | 5      | A   | NONE     |
| AD07161-009 | 10/17/18 21:39 | PA          | 5      | A   | mix      |
| AD07161-009 | 10/17/18 21:39 | R12         | 5      | A   | NONE     |
| AD07161-009 | 10/18/18 07:50 | JMP         | 5      | M   | solids   |
| AD07161-009 | 10/18/18 09:20 | R12         | 5      | A   | NONE     |
| AD07161-009 | 10/18/18 10:17 | BA          | 5      | A   | TDSI/HG  |
| AD07161-009 | 10/18/18 12:57 | BA          | 5      | A   | R12      |
| AD07161-009 | 10/18/18 14:51 | JW          | 5      | A   | ic       |
| AD07161-009 | 10/19/18 11:08 | LV          | 5      | A   | BN/BNA   |
| AD07161-009 | 10/19/18 11:08 | R12         | 5      | A   | NONE     |
| AD07161-009 | 10/22/18 08:49 | JMP         | 5      | A   | cn       |
| AD07161-009 | 10/23/18 10:17 | AM          | 5      | A   | tdsi/hg  |
| AD07161-009 | 10/23/18 10:19 | R12         | 5      | A   | NONE     |
| AD07161-009 | 10/18/18 16:10 | R21         | 6      | A   | NONE     |
| AD07161-009 | 10/19/18 11:42 | WP          | 6      | A   | VOA      |
| AD07161-009 | 10/19/18 12:47 | R31         | 6      | A   | NONE     |
| AD07161-009 | 10/18/18 16:11 | F19         | 7      | A   | NONE     |
| AD07161-009 | 10/26/18 12:51 | WP          | 7      | A   | VOA      |
| AD07161-009 | 10/18/18 16:11 | F19         | 8      | A   | NONE     |
| AD07161-009 | 10/30/18 16:48 | SG          | 8      | A   | VOA      |
| AD07161-010 | 10/17/18 16:15 | RICAR       | 0      | M   | Received |
| AD07161-010 | 10/18/18 15:55 | RICAR       | 0      | M   | Login    |
| AD07161-010 | 10/19/18 09:13 | R31         | 1      | A   | NONE     |
| AD07161-010 | 10/24/18 13:24 | WP          | 1      | A   | VOA      |
| AD07161-010 | 10/19/18 09:13 | R31         | 2      | A   | NONE     |
| AD07161-010 | 10/19/18 09:10 | R31         | 3      | A   | PH/CHECK |
| AD07325-001 | 10/24/18 21:04 | RICAR       | 0      | M   | Received |
| AD07325-001 | 10/25/18 12:26 | RICAR       | 0      | M   | Login    |
| AD07325-001 | 10/29/18 08:29 | JMP         | 1      | A   | sulfide  |
| AD07325-001 | 10/29/18 11:39 | R12         | 1      | M   | NONE     |
| AD07325-002 | 10/24/18 21:04 | RICAR       | 0      | M   | Received |
| AD07325-002 | 10/25/18 12:26 | RICAR       | 0      | M   | Login    |
| AD07325-002 | 10/29/18 08:29 | JMP         | 1      | A   | sulfide  |
| AD07325-002 | 10/29/18 11:39 | R12         | 1      | M   | NONE     |
| AD07325-003 | 10/24/18 21:04 | RICAR       | 0      | M   | Received |
| AD07325-003 | 10/25/18 12:26 | RICAR       | 0      | M   | Login    |

| Lab#:       | DateTime:      | Loc or User | Bot Nu | A/M | Analysis |
|-------------|----------------|-------------|--------|-----|----------|
| AD07325-003 | 10/29/18 08:29 | JMP         | 1      | A   | sulfide  |
| AD07325-003 | 10/29/18 11:39 | R12         | 1      | M   | NONE     |

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

# Laboratory Chronicle

8101509 0021

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Lab#:** AD07118-001

**Sample ID:** LMW-2-102018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |             | 10/22/18       | Janee   | 300.0 rev2.1      | 10/22/18 13:51 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:29 | JMP   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/18/18 11:34 | JN      | EPA 625.1         | 10/19/18 12:44 | AH/JB |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/22/18 16:12 | WP    |

**Lab#:** AD07118-002

**Sample ID:** LMW-2-102018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:27 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 02:56 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:34 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:30 | PC  |

**Lab#:** AD07118-003

**Sample ID:** PC-1-10 2018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Alkalinity-Bicarbonate (SM2320B-11)     |             | 10/18/18       | BCT     | SM2320B-11        | 10/18/18 00:00 | BCT   |
| Alkalinity-Total (SM2320B-11)           |             | 10/18/18       | BCT     | SM2320B-11        | 10/18/18 00:00 | BCT   |
| Chloride (Water) 300.0                  |             | 10/22/18       | Janee   | 300.0 rev2.1      | 10/22/18 19:46 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:38 | JMP   |
| Nitrate-N (Water) 300.0                 |             | 10/15/18       | Janee   | 300.0 rev2.1      | 10/15/18 19:26 | Janee |
| Nitrite-N (Aqueous) 300.0               |             | 10/15/18       | Janee   | 300.0 rev2.1      | 10/15/18 19:26 | Janee |
| p-Alkalinity                            |             | 10/18/18       | BCT     | SM2320B-11        | 10/18/18 00:00 | BCT   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/18/18 11:34 | JN      | EPA 625.1         | 10/19/18 13:08 | AH/JB |
| Sulfate (Water) 300.0                   |             | 10/15/18       | Janee   | 300.0 rev2.1      | 10/15/18 19:26 | Janee |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/22/18 16:29 | WP    |

**Lab#:** AD07118-004

**Sample ID:** PC-1-10 2018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:28 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:06 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 02:59 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:33 | PC  |



# Laboratory Chronicle

8101509 0022

Client: TRC Engineering  
Project: Harrison Sub Residency

HC Project #: 8101509

Lab#: AD07118-005

Sample ID: GW-DUP1-102018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |             | 10/22/18       | Janee   | 300.0 rev2.1      | 10/22/18 16:36 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:41 | JMP   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/18/18 11:34 | JN      | EPA 625.1         | 10/19/18 13:31 | AH/JB |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/22/18 16:46 | WP    |

Lab#: AD07118-006

Sample ID: GW-DUP1-102018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:29 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:03 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:37 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:37 | PC  |

Lab#: AD07118-007

Sample ID: MW-11-102018 U

| Test Code                               | Prep Method | Prep Date      | By    | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|-------|-------------------|----------------|-------|
| Alkalinity-Bicarbonate (SM2320B-11)     |             | 10/18/18       | BCT   | SM2320B-11        | 10/18/18 00:00 | BCT   |
| Alkalinity-Total (SM2320B-11)           |             | 10/18/18       | BCT   | SM2320B-11        | 10/18/18 00:00 | BCT   |
| BTEX (624.1)                            | EPA 624.1   |                |       | EPA 624.1         | 10/23/18 08:55 | WP    |
| Nitrate-N (Water) 300.0                 |             | 10/15/18       | Janee | 300.0 rev2.1      | 10/15/18 19:53 | Janee |
| Nitrite-N (Aqueous) 300.0               |             | 10/15/18       | Janee | 300.0 rev2.1      | 10/15/18 19:53 | Janee |
| p-Alkalinity                            |             | 10/18/18       | BCT   | SM2320B-11        | 10/18/18 00:00 | BCT   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/18/18 11:34 | JN    | EPA 625.1         | 10/19/18 13:55 | AH/JB |
| Sulfate (Water) 300.0                   |             | 10/15/18       | Janee | 300.0 rev2.1      | 10/15/18 19:53 | Janee |

Lab#: AD07118-008

Sample ID: MW-11-102018 F

| Test Code         | Prep Method | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-------------------|-------------|----------------|----------|-------------------|----------------|-----|
| Metals Pair 200.7 | EPA 200.2   | 10/18/18 09:30 | aadewusi | 200.7             | 10/20/18 03:07 | SRB |

# Laboratory Chronicle

8101509 0023

Client: TRC Engineering  
Project: Harrison Sub Residency

HC Project #: 8101509

Lab#: AD07118-009

Sample ID: TB-1

| Test Code                           | Prep Method | Prep Date | By | Analytical Method | Analysis Date  | By |
|-------------------------------------|-------------|-----------|----|-------------------|----------------|----|
| Volatile Organics (no search) 624.1 | EPA 624.1   |           |    | EPA 624.1         | 10/29/18 14:50 | SG |

Lab#: AD07137-001

Sample ID: LMW-4-102018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |             | 10/26/18       | Janee   | 300.0 rev2.1      | 10/26/18 13:00 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:43 | JMP   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/19/18 10:39 | JN      | EPA 625.1         | 10/22/18 11:41 | AH/JB |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/22/18 17:04 | WP    |

Lab#: AD07137-002

Sample ID: LMW-4-102018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:36 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:41 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:38 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:43 | PC  |

Lab#: AD07137-003

Sample ID: PC-2-102018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |             | 10/26/18       | Janee   | 300.0 rev2.1      | 10/26/18 15:01 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:49 | JMP   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/19/18 10:39 | JN      | EPA 625.1         | 10/22/18 12:04 | AH/JB |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/22/18 17:16 | WP    |

# Laboratory Chronicle

8101509 0024

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Lab#:** AD07137-004

**Sample ID:** PC-2-102018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:38 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:44 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:44 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:46 | PC  |

**Lab#:** AD07137-005

**Sample ID:** PC-3-102018 U

| Test Code                               | Prep Method | Prep Date      | By      | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|-------------|----------------|---------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |             | 10/26/18       | Janee   | 300.0 rev2.1      | 10/26/18 15:57 | Janee |
| Cyanide-Water (EPA 335.4)               | EPA 335.4   | 10/17/18       | jessica | EPA 335.4         | 10/17/18 14:51 | JMP   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1   | 10/19/18 10:39 | JN      | EPA 625.1         | 10/22/18 12:28 | AH/JB |
| Volatile Organics (no search) 624.1     | EPA 624.1   |                |         | EPA 624.1         | 10/23/18 08:21 | WP    |

**Lab#:** AD07137-006

**Sample ID:** PC-3-102018 F

| Test Code             | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By  |
|-----------------------|--------------|----------------|----------|-------------------|----------------|-----|
| Mercury (Water) 245.1 | 245.1 rev3.0 | 10/18/18 09:30 | aadewusi | 245.1 rev3.0      | 10/23/18 17:39 | CJA |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:49 | SRB |
| TAL Metals 200.7      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/24/18 12:48 | SRB |
| TAL Metals 200.8      | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.8         | 10/24/18 09:59 | PC  |

**Lab#:** AD07137-007

**Sample ID:** TB-2

| Test Code                           | Prep Method | Prep Date | By | Analytical Method | Analysis Date  | By |
|-------------------------------------|-------------|-----------|----|-------------------|----------------|----|
| Volatile Organics (no search) 624.1 | EPA 624.1   |           |    | EPA 624.1         | 10/23/18 13:32 | WP |

# Laboratory Chronicle

8101509 0025

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Lab#:** AD07161-001

**Sample ID:** SW-1-102018

| Test Code                               | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|--------------|----------------|----------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |              | 10/26/18       | Janee    | 300.0 rev2.1      | 10/26/18 16:25 | Janee |
| Cyanide (Water) 9012B                   |              | 10/22/18       | disham   | EPA 9012B         | 10/23/18 08:14 | JMP   |
| Hardness 200.7                          | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:53 | SRB   |
| Mercury (Water) 7470A                   | EPA 7470A    | 10/19/18 09:10 | aadewusi | EPA 7470A         | 10/20/18 17:30 | CJA   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1    | 10/24/18       | JN       | EPA 625.1         | 10/25/18 13:19 | AH/JB |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 16:04 | SRB   |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 19:40 | SRB   |
| TAL Metals 6020B                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6020B         | 10/23/18 16:08 | PC    |
| Volatile Organics (no search) 624.1     | EPA 624.1    |                |          | EPA 624.1         | 10/27/18 19:17 | SG    |

**Lab#:** AD07161-002

**Sample ID:** SD-1-102018

| Test Code                              | Prep Method  | Prep Date      | By      | Analytical Method | Analysis Date  | By      |
|----------------------------------------|--------------|----------------|---------|-------------------|----------------|---------|
| % Solids SM2540G                       |              |                |         | SM 2540G          | 10/18/18 00:00 | jessica |
| Chloride (Soil) 9056A                  |              | 10/18/18       | Janee   | EPA 9056A         | 10/19/18 06:37 | Janee   |
| Cyanide (Soil/Waste) 9012B             |              | 10/22/18       | jessica | EPA 9012B         | 10/22/18 12:10 | JMP     |
| Mercury (Soil/Waste) 7471B             | EPA 7471B    | 10/18/18 10:00 | BAdeola | EPA 7471B         | 10/20/18 14:36 | CJA     |
| Semivolatile Organics (no search) 8270 | 3510C/3550C  | 10/19/18 11:08 | lynda   | EPA 8270D         | 10/20/18 00:07 | AH/JB   |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 01:24 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 13:13 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/21/18 04:22 | OA      |
| TAL Metals 6020B                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6020B         | 10/20/18 02:16 | PC      |
| Volatile Organics (no search) 8260     | EPA5030/5035 |                |         | EPA 8260C         | 11/1/18 03:43  | SG      |

**Lab#:** AD07161-003

**Sample ID:** SW-2-102018

| Test Code                               | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|--------------|----------------|----------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |              | 10/26/18       | Janee    | 300.0 rev2.1      | 10/26/18 17:46 | Janee |
| Cyanide (Water) 9012B                   |              | 10/22/18       | disham   | EPA 9012B         | 10/23/18 08:23 | JMP   |
| Hardness 200.7                          | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 03:57 | SRB   |
| Mercury (Water) 7470A                   | EPA 7470A    | 10/19/18 09:10 | aadewusi | EPA 7470A         | 10/20/18 17:31 | CJA   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1    | 10/25/18       | JN       | EPA 625.1         | 10/26/18 13:16 | AH/JB |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 16:17 | SRB   |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 19:52 | SRB   |
| TAL Metals 6020B                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6020B         | 10/23/18 16:13 | PC    |
| Volatile Organics (no search) 624.1     | EPA 624.1    |                |          | EPA 624.1         | 10/27/18 19:35 | SG    |

# Laboratory Chronicle

8101509 0026

Client: TRC Engineering  
Project: Harrison Sub Residency

HC Project #: 8101509

Lab#: AD07161-004

Sample ID: SD-2-102018

| Test Code                              | Prep Method  | Prep Date      | By      | Analytical Method | Analysis Date  | By      |
|----------------------------------------|--------------|----------------|---------|-------------------|----------------|---------|
| % Solids SM2540G                       |              |                |         | SM 2540G          | 10/18/18 00:00 | jessica |
| Chloride (Soil) 9056A                  |              | 10/18/18       | Janee   | EPA 9056A         | 10/19/18 07:04 | Janee   |
| Cyanide (Soil/Waste) 9012B             |              | 10/22/18       | jessica | EPA 9012B         | 10/22/18 12:12 | JMP     |
| Mercury (Soil/Waste) 7471B             | EPA 7471B    | 10/18/18 10:00 | BAdeola | EPA 7471B         | 10/20/18 14:42 | CJA     |
| Semivolatile Organics (no search) 8270 | 3510C/3550C  | 10/19/18 11:08 | lynda   | EPA 8270D         | 10/20/18 00:31 | AH/JB   |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 01:56 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 13:36 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/21/18 04:46 | OA      |
| TAL Metals 6020B                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6020B         | 10/20/18 02:59 | PC      |
| Volatile Organics (no search) 8260     | EPA5030/5035 |                |         | EPA 8260C         | 11/1/18 04:05  | SG      |

Lab#: AD07161-005

Sample ID: SW-3-102018

| Test Code                               | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|--------------|----------------|----------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |              | 10/26/18       | Janee    | 300.0 rev2.1      | 10/27/18 11:33 | Janee |
| Cyanide (Water) 9012B                   |              | 10/22/18       | disham   | EPA 9012B         | 10/23/18 08:26 | JMP   |
| Hardness 200.7                          | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 02:07 | SRB   |
| Mercury (Water) 7470A                   | EPA 7470A    | 10/19/18 09:10 | aadewusi | EPA 7470A         | 10/20/18 17:33 | CJA   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1    | 10/25/18       | JN       | EPA 625.1         | 10/26/18 13:38 | AH/JB |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 16:21 | SRB   |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 19:56 | SRB   |
| TAL Metals 6020B                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6020B         | 10/23/18 16:17 | PC    |
| Volatile Organics (no search) 624.1     | EPA 624.1    |                |          | EPA 624.1         | 10/27/18 19:52 | SG    |

Lab#: AD07161-006

Sample ID: SD-3-102018

| Test Code                              | Prep Method  | Prep Date      | By      | Analytical Method | Analysis Date  | By      |
|----------------------------------------|--------------|----------------|---------|-------------------|----------------|---------|
| % Solids SM2540G                       |              |                |         | SM 2540G          | 10/18/18 00:00 | jessica |
| Chloride (Soil) 9056A                  |              | 10/18/18       | Janee   | EPA 9056A         | 10/19/18 07:31 | Janee   |
| Cyanide (Soil/Waste) 9012B             |              | 10/22/18       | jessica | EPA 9012B         | 10/22/18 12:14 | JMP     |
| Mercury (Soil/Waste) 7471B             | EPA 7471B    | 10/18/18 10:00 | BAdeola | EPA 7471B         | 10/20/18 14:47 | CJA     |
| Semivolatile Organics (no search) 8270 | 3510C/3550C  | 10/19/18 11:08 | lynda   | EPA 8270D         | 10/20/18 00:54 | AH/JB   |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 03:53 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/21/18 04:59 | OA      |
| TAL Metals 6020B                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6020B         | 10/20/18 03:03 | PC      |
| Volatile Organics (no search) 8260     | EPA5030/5035 |                |         | EPA 8260C         | 11/1/18 04:26  | SG      |

# Laboratory Chronicle

8101509 0027

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Lab#:** AD07161-007

**Sample ID:** SW-DUP1-102018

| Test Code                               | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|--------------|----------------|----------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |              | 10/26/18       | Janee    | 300.0 rev2.1      | 10/27/18 12:00 | Janee |
| Cyanide (Water) 9012B                   |              | 10/22/18       | disham   | EPA 9012B         | 10/23/18 08:28 | JMP   |
| Hardness 200.7                          | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 04:01 | SRB   |
| Mercury (Water) 7470A                   | EPA 7470A    | 10/19/18 09:10 | aadewusi | EPA 7470A         | 10/20/18 17:37 | CJA   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1    | 10/25/18       | JN       | EPA 625.1         | 10/26/18 14:01 | AH/JB |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 16:26 | SRB   |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 20:00 | SRB   |
| TAL Metals 6020B                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6020B         | 10/23/18 16:22 | PC    |
| Volatile Organics (no search) 624.1     | EPA 624.1    |                |          | EPA 624.1         | 10/27/18 20:09 | SG    |

**Lab#:** AD07161-008

**Sample ID:** SW-4-102018

| Test Code                               | Prep Method  | Prep Date      | By       | Analytical Method | Analysis Date  | By    |
|-----------------------------------------|--------------|----------------|----------|-------------------|----------------|-------|
| Chloride (Water) 300.0                  |              | 10/26/18       | Janee    | 300.0 rev2.1      | 10/26/18 20:57 | Janee |
| Cyanide (Water) 9012B                   |              | 10/22/18       | disham   | EPA 9012B         | 10/23/18 08:34 | JMP   |
| Hardness 200.7                          | EPA 200.2    | 10/18/18 09:30 | aadewusi | EPA 200.7         | 10/20/18 04:04 | SRB   |
| Mercury (Water) 7470A                   | EPA 7470A    | 10/19/18 09:10 | aadewusi | EPA 7470A         | 10/20/18 17:39 | CJA   |
| Semivolatile Organics (no search) 625.1 | EPA 625.1    | 10/25/18       | JN       | EPA 625.1         | 10/26/18 14:25 | AH/JB |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 16:30 | SRB   |
| TAL Metals 6010D                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6010D         | 10/22/18 20:04 | SRB   |
| TAL Metals 6020B                        | 3005&10/3050 | 10/19/18 09:10 | aadewusi | EPA 6020B         | 10/23/18 16:27 | PC    |
| Volatile Organics (no search) 624.1     | EPA 624.1    |                |          | EPA 624.1         | 10/27/18 20:26 | SG    |

**Lab#:** AD07161-009

**Sample ID:** SD-4-102018

| Test Code                              | Prep Method  | Prep Date      | By      | Analytical Method | Analysis Date  | By      |
|----------------------------------------|--------------|----------------|---------|-------------------|----------------|---------|
| % Solids SM2540G                       |              |                |         | SM 2540G          | 10/18/18 00:00 | jessica |
| Chloride (Soil) 9056A                  |              | 10/18/18       | Janee   | EPA 9056A         | 10/19/18 07:59 | Janee   |
| Cyanide (Soil/Waste) 9012B             |              | 10/22/18       | jessica | EPA 9012B         | 10/22/18 12:16 | JMP     |
| Mercury (Soil/Waste) 7471B             | EPA 7471B    | 10/18/18 10:00 | BAdeola | EPA 7471B         | 10/20/18 14:48 | CJA     |
| Semivolatile Organics (no search) 8270 | 3510C/3550C  | 10/19/18 11:08 | lynda   | EPA 8270D         | 10/20/18 01:17 | AH/JB   |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/19/18 03:59 | OA      |
| TAL Metals 6010D                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6010D         | 10/21/18 05:03 | OA      |
| TAL Metals 6020B                       | 3005&10/3050 | 10/18/18 10:00 | BAdeola | EPA 6020B         | 10/20/18 03:08 | PC      |
| Volatile Organics (no search) 8260     | EPA5030/5035 |                |         | EPA 8260C         | 11/1/18 04:48  | SG      |

# Laboratory Chronicle

8101509 0028

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Lab#:** AD07161-010

**Sample ID:** TB-3

| Test Code                           | Prep Method | Prep Date | By | Analytical Method | Analysis Date  | By |
|-------------------------------------|-------------|-----------|----|-------------------|----------------|----|
| Volatile Organics (no search) 624.1 | EPA 624.1   |           |    | EPA 624.1         | 10/24/18 14:16 | WP |

**Lab#:** AD07325-001

**Sample ID:** PC-1-102018

| Test Code                     | Prep Method  | Prep Date | By  | Analytical Method | Analysis Date  | By  |
|-------------------------------|--------------|-----------|-----|-------------------|----------------|-----|
| Sulfide-Total (SM4500-S2F-11) | SM4500-S2F11 | 10/29/18  | JMP | SM4500-S2F11      | 10/29/18 00:00 | JMP |

**Lab#:** AD07325-002

**Sample ID:** MW-11-102018

| Test Code                     | Prep Method  | Prep Date | By  | Analytical Method | Analysis Date  | By  |
|-------------------------------|--------------|-----------|-----|-------------------|----------------|-----|
| Sulfide-Total (SM4500-S2F-11) | SM4500-S2F11 | 10/29/18  | JMP | SM4500-S2F11      | 10/29/18 00:00 | JMP |

**Lab#:** AD07325-003

**Sample ID:** GW-DUP1-102018

| Test Code                     | Prep Method  | Prep Date | By  | Analytical Method | Analysis Date  | By  |
|-------------------------------|--------------|-----------|-----|-------------------|----------------|-----|
| Sulfide-Total (SM4500-S2F-11) | SM4500-S2F11 | 10/29/18  | JMP | SM4500-S2F11      | 10/29/18 00:00 | JMP |

# HC Report of Analysis

**Client:** TRC Engineering  
**Project:** Harrison Sub Residency

**HC Project #:** 8101509

**Sample ID:** LMW-2-102018 U  
**Lab#:** AD07118-001  
**Matrix:** Aqueous

**Collection Date:** 10/15/2018  
**Receipt Date:** 10/15/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 15     |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether    | 1  | ug/l  | 0.26 | ND     |



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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

**Volatile Organics (no search) 624.1**

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Carbon tetrachloride      | 1 | ug/l | 1.0  | ND |
| Chlorobenzene             | 1 | ug/l | 1.0  | ND |
| Chloroethane              | 1 | ug/l | 1.0  | ND |
| Chloroform                | 1 | ug/l | 1.0  | ND |
| Chloromethane             | 1 | ug/l | 1.0  | ND |
| cis-1,2-Dichloroethene    | 1 | ug/l | 1.0  | ND |
| cis-1,3-Dichloropropene   | 1 | ug/l | 1.0  | ND |
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: LMW-2-102018 F

Lab#: AD07118-002

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 120    |
| Calcium   | 1  | ug/l  | 1000 | 78000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 170    |
| Magnesium | 1  | ug/l  | 1000 | 28000  |
| Manganese | 1  | ug/l  | 25   | 170    |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3900   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 25000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

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 Lab#: AD07118-003  
 Matrix: Aqueous

Collection Date: 10/15/2018  
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**Alkalinity-Bicarbonate (SM2320B-11)**

| Analyte    | DF | Units      | RL | Result |
|------------|----|------------|----|--------|
| Alkalinity | 1  | mg caco3/l | 10 | 450    |

**Alkalinity-Total (SM2320B-11)**

| Analyte     | DF | Units      | RL | Result |
|-------------|----|------------|----|--------|
| Alkalinity  | 1  | mg caco3/l | 10 | 450    |
| pH Endpoint | 1  | ph         |    | 4.5    |

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 230    |

**Cyanide-Water (EPA 335.4)**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Nitrate-N (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrate | 1  | mg/l  | 1.0 | ND     |

**Nitrite-N (Aqueous) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrite | 1  | mg/l  | 1.0 | ND     |

**p-Alkalinity**

| Analyte      | DF | Units      | RL | Result |
|--------------|----|------------|----|--------|
| p-Alkalinity | 1  | mg caco3/l | 10 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| Acenaphthene                | 1 | ug/l | 1.0  | ND |
| Acenaphthylene              | 1 | ug/l | 1.0  | ND |
| Acetophenone                | 1 | ug/l | 1.0  | ND |
| Anthracene                  | 1 | ug/l | 1.0  | ND |
| Atrazine                    | 1 | ug/l | 1.0  | ND |
| Benzaldehyde                | 1 | ug/l | 1.0  | ND |
| Benzo[a]anthracene          | 1 | ug/l | 1.0  | ND |
| Benzo[a]pyrene              | 1 | ug/l | 1.0  | ND |
| Benzo[b]fluoranthene        | 1 | ug/l | 1.0  | ND |
| Benzo[g,h,i]perylene        | 1 | ug/l | 1.0  | ND |
| Benzo[k]fluoranthene        | 1 | ug/l | 1.0  | ND |
| bis(2-Chloroethoxy)methane  | 1 | ug/l | 1.0  | ND |
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.25 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.25 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.25 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.0  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

**Sulfate (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Sulfate | 1  | mg/l  | 2.0 | 8.1    |

**Volatile Organics (no search) 624.1**

| Analyte                               | DF | Units | RL  | Result |
|---------------------------------------|----|-------|-----|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0 | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0 | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0 | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0 | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0 | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0 | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0 | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0 | ND     |

Sample ID: PC-1-10 2018 U

Lab#: AD07118-003

Matrix: Aqueous

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| 1,2-Dibromoethane         | 1 | ug/l | 1.0  | ND |
| 1,2-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,2-Dichloroethane        | 1 | ug/l | 0.50 | ND |
| 1,2-Dichloropropane       | 1 | ug/l | 1.0  | ND |
| 1,3-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,4-Dichlorobenzene       | 1 | ug/l | 1.0  | ND |
| 1,4-Dioxane               | 1 | ug/l | 50   | ND |
| 2-Butanone                | 1 | ug/l | 1.0  | ND |
| 2-Hexanone                | 1 | ug/l | 1.0  | ND |
| 4-Methyl-2-pentanone      | 1 | ug/l | 1.0  | ND |
| Acetone                   | 1 | ug/l | 5.0  | ND |
| Benzene                   | 1 | ug/l | 0.50 | ND |
| Bromochloromethane        | 1 | ug/l | 1.0  | ND |
| Bromodichloromethane      | 1 | ug/l | 1.0  | ND |
| Bromoform                 | 1 | ug/l | 1.0  | ND |
| Bromomethane              | 1 | ug/l | 1.0  | ND |
| Carbon disulfide          | 1 | ug/l | 1.0  | ND |
| Carbon tetrachloride      | 1 | ug/l | 1.0  | ND |
| Chlorobenzene             | 1 | ug/l | 1.0  | ND |
| Chloroethane              | 1 | ug/l | 1.0  | ND |
| Chloroform                | 1 | ug/l | 1.0  | ND |
| Chloromethane             | 1 | ug/l | 1.0  | ND |
| cis-1,2-Dichloroethene    | 1 | ug/l | 1.0  | ND |
| cis-1,3-Dichloropropene   | 1 | ug/l | 1.0  | ND |
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: PC-1-10 2018 F  
 Lab#: AD07118-004  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/15/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | 120    |
| Barium    | 1  | ug/l  | 25   | 140    |
| Calcium   | 1  | ug/l  | 1000 | 170000 |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 240    |
| Magnesium | 1  | ug/l  | 1000 | 27000  |
| Manganese | 1  | ug/l  | 25   | 2000   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 4900   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 100000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: GW-DUP1-102018 U

Lab#: AD07118-005

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 220    |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |



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Lab#: AD07118-005

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

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Lab#: AD07118-005

Matrix: Aqueous

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: GW-DUP1-102018 F

Lab#: AD07118-006

Matrix: Aqueous

Collection Date: 10/15/2018

Receipt Date: 10/15/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 130    |
| Calcium   | 1  | ug/l  | 1000 | 170000 |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 230    |
| Magnesium | 1  | ug/l  | 1000 | 26000  |
| Manganese | 1  | ug/l  | 25   | 2000   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 5000   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 100000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: MW-11-102018 U  
 Lab#: AD07118-007  
 Matrix: Aqueous

Collection Date: 10/15/2018  
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## Alkalinity-Bicarbonate (SM2320B-11)

| Analyte    | DF | Units      | RL | Result |
|------------|----|------------|----|--------|
| Alkalinity | 1  | mg cac03/l | 10 | 270    |

## Alkalinity-Total (SM2320B-11)

| Analyte     | DF | Units      | RL | Result |
|-------------|----|------------|----|--------|
| Alkalinity  | 1  | mg cac03/l | 10 | 270    |
| pH Endpoint | 1  | ph         |    | 4.5    |

## BTEX (624.1)

| Analyte              | DF | Units | RL   | Result |
|----------------------|----|-------|------|--------|
| Benzene              | 1  | ug/l  | 0.50 | ND     |
| Ethylbenzene         | 1  | ug/l  | 1.0  | 17     |
| m&p-Xylenes          | 1  | ug/l  | 1.0  | 2.0    |
| Methyl-t-butyl ether | 1  | ug/l  | 0.50 | ND     |
| o-Xylene             | 1  | ug/l  | 1.0  | ND     |
| Toluene              | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)      | 1  | ug/l  | 1.0  | 2.0    |

## Nitrate-N (Water) 300.0

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrate | 1  | mg/l  | 1.0 | ND     |

## Nitrite-N (Aqueous) 300.0

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Nitrite | 1  | mg/l  | 1.0 | ND     |

## p-Alkalinity

| Analyte      | DF | Units      | RL | Result |
|--------------|----|------------|----|--------|
| p-Alkalinity | 1  | mg cac03/l | 10 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |

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Lab#: AD07118-007

Matrix: Aqueous

Collection Date: 10/15/2018

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|                             |          |             |             |             |
|-----------------------------|----------|-------------|-------------|-------------|
| 4-Nitroaniline              | 1        | ug/l        | 1.0         | ND          |
| 4-Nitrophenol               | 1        | ug/l        | 1.0         | ND          |
| Acenaphthene                | 1        | ug/l        | 1.0         | ND          |
| Acenaphthylene              | 1        | ug/l        | 1.0         | ND          |
| Acetophenone                | 1        | ug/l        | 1.0         | ND          |
| Anthracene                  | 1        | ug/l        | 1.0         | ND          |
| Atrazine                    | 1        | ug/l        | 1.0         | ND          |
| Benzaldehyde                | 1        | ug/l        | 1.0         | ND          |
| Benzo[a]anthracene          | 1        | ug/l        | 1.0         | ND          |
| Benzo[a]pyrene              | 1        | ug/l        | 1.0         | ND          |
| Benzo[b]fluoranthene        | 1        | ug/l        | 1.0         | ND          |
| Benzo[g,h,i]perylene        | 1        | ug/l        | 1.0         | ND          |
| Benzo[k]fluoranthene        | 1        | ug/l        | 1.0         | ND          |
| bis(2-Chloroethoxy)methane  | 1        | ug/l        | 1.0         | ND          |
| bis(2-Chloroethyl)ether     | 1        | ug/l        | 0.25        | ND          |
| bis(2-Chloroisopropyl)ether | 1        | ug/l        | 1.0         | ND          |
| bis(2-Ethylhexyl)phthalate  | 1        | ug/l        | 1.0         | ND          |
| Butylbenzylphthalate        | 1        | ug/l        | 1.0         | ND          |
| Caprolactam                 | 1        | ug/l        | 1.0         | ND          |
| Carbazole                   | 1        | ug/l        | 1.0         | ND          |
| Chrysene                    | 1        | ug/l        | 1.0         | ND          |
| Dibenzo[a,h]anthracene      | 1        | ug/l        | 1.0         | ND          |
| Dibenzofuran                | 1        | ug/l        | 0.25        | ND          |
| Diethylphthalate            | 1        | ug/l        | 1.0         | ND          |
| Dimethylphthalate           | 1        | ug/l        | 1.0         | ND          |
| Di-n-butylphthalate         | 1        | ug/l        | 0.25        | ND          |
| Di-n-octylphthalate         | 1        | ug/l        | 1.0         | ND          |
| Fluoranthene                | 1        | ug/l        | 1.0         | ND          |
| Fluorene                    | 1        | ug/l        | 1.0         | ND          |
| Hexachlorobenzene           | 1        | ug/l        | 1.0         | ND          |
| Hexachlorobutadiene         | 1        | ug/l        | 1.0         | ND          |
| Hexachlorocyclopentadiene   | 1        | ug/l        | 1.0         | ND          |
| Hexachloroethane            | 1        | ug/l        | 1.0         | ND          |
| Indeno[1,2,3-cd]pyrene      | 1        | ug/l        | 1.0         | ND          |
| Isophorone                  | 1        | ug/l        | 1.0         | ND          |
| <b>Naphthalene</b>          | <b>1</b> | <b>ug/l</b> | <b>0.25</b> | <b>0.56</b> |
| Nitrobenzene                | 1        | ug/l        | 1.0         | ND          |
| N-Nitroso-di-n-propylamine  | 1        | ug/l        | 0.25        | ND          |
| N-Nitrosodiphenylamine      | 1        | ug/l        | 1.0         | ND          |
| Pentachlorophenol           | 1        | ug/l        | 5.0         | ND          |
| Phenanthrene                | 1        | ug/l        | 1.0         | ND          |
| Phenol                      | 1        | ug/l        | 1.0         | ND          |
| Pyrene                      | 1        | ug/l        | 1.0         | ND          |

**Sulfate (Water) 300.0**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Sulfate | 1  | mg/l  | 2.0 | 7.5    |

Sample ID: MW-11-102018 F  
Lab#: AD07118-008  
Matrix: Aqueous

Collection Date: 10/15/2018  
Receipt Date: 10/15/2018

**Metals Pair 200.7**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Iron      | 1  | ug/l  | 150 | 1600   |
| Manganese | 1  | ug/l  | 25  | 1600   |

Sample ID: TB-1  
 Lab#: AD07118-009  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/15/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

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Matrix: Aqueous

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 32     |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |



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|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: LMW-4-102018 F

Lab#: AD07137-002

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 150    |
| Calcium   | 1  | ug/l  | 1000 | 40000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 60000  |
| Magnesium | 1  | ug/l  | 1000 | 17000  |
| Manganese | 1  | ug/l  | 25   | 9700   |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3500   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 29000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | 2.0    |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | 11     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: PC-2-102018 U  
 Lab#: AD07137-003  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 21     |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |

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Lab#: AD07137-003

Matrix: Aqueous

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|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

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Lab#: AD07137-003

Matrix: Aqueous

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|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: PC-2-102018 F  
 Lab#: AD07137-004  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 170    |
| Calcium   | 1  | ug/l  | 1000 | 81000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 61000  |
| Magnesium | 1  | ug/l  | 1000 | 19000  |
| Manganese | 1  | ug/l  | 25   | 11000  |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 3700   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 39000  |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | 1.8    |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | 1.6    |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: PC-3-102018 U  
 Lab#: AD07137-005  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

## Chloride (Water) 300.0

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 10 | mg/l  | 20 | 230    |

## Cyanide-Water (EPA 335.4)

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                     | DF | Units | RL   | Result |
|-----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl               | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene  | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                 | 1  | ug/l  | 0.25 | ND     |
| 2,3,4,6-Tetrachlorophenol   | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol       | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dimethylphenol          | 1  | ug/l  | 0.25 | ND     |
| 2,4-Dinitrophenol           | 1  | ug/l  | 5.0  | ND     |
| 2,4-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene          | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol              | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene         | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol              | 1  | ug/l  | 0.25 | ND     |
| 2-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol            | 1  | ug/l  | 0.25 | ND     |
| 3,3'-Dichlorobenzidine      | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol  | 1  | ug/l  | 5.0  | ND     |
| 4-Bromophenyl-phenylether   | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol     | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline             | 1  | ug/l  | 0.25 | ND     |
| 4-Chlorophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline              | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene                | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene              | 1  | ug/l  | 1.0  | ND     |
| Acetophenone                | 1  | ug/l  | 1.0  | ND     |
| Anthracene                  | 1  | ug/l  | 1.0  | ND     |
| Atrazine                    | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde                | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene          | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene              | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene        | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene        | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane  | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethyl)ether     | 1  | ug/l  | 0.25 | ND     |
| bis(2-Chloroisopropyl)ether | 1  | ug/l  | 1.0  | ND     |
| bis(2-Ethylhexyl)phthalate  | 1  | ug/l  | 1.0  | ND     |
| Butylbenzylphthalate        | 1  | ug/l  | 1.0  | ND     |
| Caprolactam                 | 1  | ug/l  | 1.0  | ND     |
| Carbazole                   | 1  | ug/l  | 1.0  | ND     |
| Chrysene                    | 1  | ug/l  | 1.0  | ND     |
| Dibenzo[a,h]anthracene      | 1  | ug/l  | 1.0  | ND     |



Sample ID: PC-3-102018 U

Lab#: AD07137-005

Matrix: Aqueous

Collection Date: 10/16/2018

Receipt Date: 10/16/2018

|                            |   |      |      |    |
|----------------------------|---|------|------|----|
| Dibenzofuran               | 1 | ug/l | 0.25 | ND |
| Diethylphthalate           | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate          | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate        | 1 | ug/l | 0.25 | ND |
| Di-n-octylphthalate        | 1 | ug/l | 1.0  | ND |
| Fluoranthene               | 1 | ug/l | 1.0  | ND |
| Fluorene                   | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene          | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene        | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene  | 1 | ug/l | 1.0  | ND |
| Hexachloroethane           | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene     | 1 | ug/l | 1.0  | ND |
| Isophorone                 | 1 | ug/l | 1.0  | ND |
| Naphthalene                | 1 | ug/l | 0.25 | ND |
| Nitrobenzene               | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine | 1 | ug/l | 0.25 | ND |
| N-Nitrosodiphenylamine     | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol          | 1 | ug/l | 5.0  | ND |
| Phenanthrene               | 1 | ug/l | 1.0  | ND |
| Phenol                     | 1 | ug/l | 1.0  | ND |
| Pyrene                     | 1 | ug/l | 1.0  | ND |

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |

Sample ID: PC-3-102018 U

Collection Date: 10/16/2018

Lab#: AD07137-005

Receipt Date: 10/16/2018

Matrix: Aqueous

|                           |   |      |      |    |
|---------------------------|---|------|------|----|
| Cyclohexane               | 1 | ug/l | 1.0  | ND |
| Dibromochloromethane      | 1 | ug/l | 1.0  | ND |
| Dichlorodifluoromethane   | 1 | ug/l | 1.0  | ND |
| Ethylbenzene              | 1 | ug/l | 1.0  | ND |
| Isopropylbenzene          | 1 | ug/l | 1.0  | ND |
| m&p-Xylenes               | 1 | ug/l | 1.0  | ND |
| Methyl Acetate            | 1 | ug/l | 1.0  | ND |
| Methylcyclohexane         | 1 | ug/l | 1.0  | ND |
| Methylene chloride        | 1 | ug/l | 1.0  | ND |
| Methyl-t-butyl ether      | 1 | ug/l | 0.50 | ND |
| o-Xylene                  | 1 | ug/l | 1.0  | ND |
| Styrene                   | 1 | ug/l | 1.0  | ND |
| Tetrachloroethene         | 1 | ug/l | 1.0  | ND |
| Toluene                   | 1 | ug/l | 1.0  | ND |
| trans-1,2-Dichloroethene  | 1 | ug/l | 1.0  | ND |
| trans-1,3-Dichloropropene | 1 | ug/l | 1.0  | ND |
| Trichloroethene           | 1 | ug/l | 1.0  | ND |
| Trichlorofluoromethane    | 1 | ug/l | 1.0  | ND |
| Vinyl chloride            | 1 | ug/l | 1.0  | ND |
| Xylenes (Total)           | 1 | ug/l | 1.0  | ND |

Sample ID: PC-3-102018 F  
 Lab#: AD07137-006  
 Matrix: Aqueous

Collection Date: 10/16/2018  
 Receipt Date: 10/16/2018

**Mercury (Water) 245.1**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.20 | ND     |

**TAL Metals 200.7**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 100  | ND     |
| Barium    | 1  | ug/l  | 25   | 160    |
| Calcium   | 1  | ug/l  | 1000 | 74000  |
| Chromium  | 1  | ug/l  | 25   | ND     |
| Copper    | 1  | ug/l  | 25   | ND     |
| Iron      | 1  | ug/l  | 150  | 1800   |
| Magnesium | 1  | ug/l  | 1000 | 21000  |
| Manganese | 1  | ug/l  | 25   | 570    |
| Nickel    | 1  | ug/l  | 10   | ND     |
| Potassium | 1  | ug/l  | 2500 | 7300   |
| Silver    | 1  | ug/l  | 10   | ND     |
| Sodium    | 1  | ug/l  | 2500 | 120000 |
| Vanadium  | 1  | ug/l  | 25   | ND     |
| Zinc      | 1  | ug/l  | 25   | ND     |

**TAL Metals 200.8**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | ug/l  | 2.5  | ND     |
| Arsenic   | 1  | ug/l  | 1.0  | ND     |
| Beryllium | 1  | ug/l  | 0.75 | ND     |
| Cadmium   | 1  | ug/l  | 1.0  | ND     |
| Cobalt    | 1  | ug/l  | 1.0  | ND     |
| Lead      | 1  | ug/l  | 0.75 | ND     |
| Selenium  | 1  | ug/l  | 5.0  | ND     |
| Thallium  | 1  | ug/l  | 1.5  | ND     |

Sample ID: TB-2  
 Lab#: AD07137-007  
 Matrix: Aqueous

Collection Date: 10/15/2018  
 Receipt Date: 10/16/2018

## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SW-1-102018

Lab#: AD07161-001

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 5.5    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units                   | RL  | Result |
|----------|----|-------------------------|-----|--------|
| Hardness | 1  | mg cacO <sub>3</sub> /l | 6.6 | 150    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 2.5  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 2.5  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.62 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 2.5  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 2.5  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 2.5  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.62 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.62 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 12   | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 2.5  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 2.5  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 2.5  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 2.5  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 2.5  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.62 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 2.5  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.62 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 2.5  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 12   | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 2.5  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 2.5  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.62 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 2.5  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 2.5  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 2.5  | ND     |
| Acenaphthene               | 1  | ug/l  | 2.5  | ND     |
| Acenaphthylene             | 1  | ug/l  | 2.5  | ND     |
| Acetophenone               | 1  | ug/l  | 2.5  | ND     |
| Anthracene                 | 1  | ug/l  | 2.5  | ND     |
| Atrazine                   | 1  | ug/l  | 2.5  | ND     |
| Benzaldehyde               | 1  | ug/l  | 2.5  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 2.5  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 2.5  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 2.5  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 2.5  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 2.5  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 2.5  | ND     |

Sample ID: SW-1-102018

Lab#: AD07161-001

Matrix: Aqueous

Collection Date: 10/17/2018

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.62 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 2.5  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 2.5  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 2.5  | ND |
| Caprolactam                 | 1 | ug/l | 2.5  | ND |
| Carbazole                   | 1 | ug/l | 2.5  | ND |
| Chrysene                    | 1 | ug/l | 2.5  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 2.5  | ND |
| Dibenzofuran                | 1 | ug/l | 0.62 | ND |
| Diethylphthalate            | 1 | ug/l | 2.5  | ND |
| Dimethylphthalate           | 1 | ug/l | 2.5  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.62 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 2.5  | ND |
| Fluoranthene                | 1 | ug/l | 2.5  | ND |
| Fluorene                    | 1 | ug/l | 2.5  | ND |
| Hexachlorobenzene           | 1 | ug/l | 2.5  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 2.5  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 2.5  | ND |
| Hexachloroethane            | 1 | ug/l | 2.5  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 2.5  | ND |
| Isophorone                  | 1 | ug/l | 2.5  | ND |
| Naphthalene                 | 1 | ug/l | 0.62 | ND |
| Nitrobenzene                | 1 | ug/l | 2.5  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.62 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 2.5  | ND |
| Pentachlorophenol           | 1 | ug/l | 12   | ND |
| Phenanthrene                | 1 | ug/l | 2.5  | ND |
| Phenol                      | 1 | ug/l | 2.5  | ND |
| Pyrene                      | 1 | ug/l | 2.5  | ND |

**TAL Metals 6010D**

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | 390    |
| Barium    | 1  | ug/l  | 50   | ND     |
| Calcium   | 1  | ug/l  | 5000 | 43000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1800   |
| Magnesium | 1  | ug/l  | 5000 | 12000  |
| Manganese | 1  | ug/l  | 40   | 1500   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | ND     |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 9300   |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

**TAL Metals 6020B**

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-1-102018  
 Lab#: AD07161-001  
 Matrix: Aqueous

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**Volatile Organics (no search) 624.1**

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-1-102018  
 Lab#: AD07161-002  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 36     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 56 | ND     |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.67 | ND     |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.23 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.093 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.093 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.093 | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.093 | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.093 | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.023 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.023 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.46  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.093 | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.093 | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.093 | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.093 | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.093 | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.023 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.093 | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.023 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.093 | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.46  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.093 | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.093 | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.023 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.093 | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.093 | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.093 | ND     |
| Acenaphthene               | 1  | mg/kg | 0.093 | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.093 | ND     |
| Acetophenone               | 1  | mg/kg | 0.093 | ND     |
| Anthracene                 | 1  | mg/kg | 0.093 | ND     |
| Atrazine                   | 1  | mg/kg | 0.093 | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.093 | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.093 | 0.16   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.093 | 0.21   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.093 | 0.31   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.093 | 0.14   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.093 | 0.10   |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.093 | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.023 | ND     |



Sample ID: SD-1-102018  
 Lab#: AD07161-002  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

|                               |          |              |              |             |
|-------------------------------|----------|--------------|--------------|-------------|
| bis(2-Chloroisopropyl)ether   | 1        | mg/kg        | 0.093        | ND          |
| bis(2-Ethylhexyl)phthalate    | 1        | mg/kg        | 0.093        | ND          |
| Butylbenzylphthalate          | 1        | mg/kg        | 0.093        | ND          |
| Caprolactam                   | 1        | mg/kg        | 0.093        | ND          |
| Carbazole                     | 1        | mg/kg        | 0.093        | ND          |
| <b>Chrysene</b>               | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.23</b> |
| Dibenzo[a,h]anthracene        | 1        | mg/kg        | 0.093        | ND          |
| Dibenzofuran                  | 1        | mg/kg        | 0.023        | ND          |
| Diethylphthalate              | 1        | mg/kg        | 0.093        | ND          |
| Dimethylphthalate             | 1        | mg/kg        | 0.093        | ND          |
| Di-n-butylphthalate           | 1        | mg/kg        | 0.023        | ND          |
| Di-n-octylphthalate           | 1        | mg/kg        | 0.093        | ND          |
| <b>Fluoranthene</b>           | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.35</b> |
| Fluorene                      | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorobenzene             | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorobutadiene           | 1        | mg/kg        | 0.093        | ND          |
| Hexachlorocyclopentadiene     | 1        | mg/kg        | 0.093        | ND          |
| Hexachloroethane              | 1        | mg/kg        | 0.093        | ND          |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.12</b> |
| Isophorone                    | 1        | mg/kg        | 0.093        | ND          |
| Naphthalene                   | 1        | mg/kg        | 0.023        | ND          |
| Nitrobenzene                  | 1        | mg/kg        | 0.093        | ND          |
| N-Nitroso-di-n-propylamine    | 1        | mg/kg        | 0.023        | ND          |
| N-Nitrosodiphenylamine        | 1        | mg/kg        | 0.093        | ND          |
| Pentachlorophenol             | 1        | mg/kg        | 0.46         | ND          |
| <b>Phenanthrene</b>           | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.16</b> |
| Phenol                        | 1        | mg/kg        | 0.093        | ND          |
| <b>Pyrene</b>                 | <b>1</b> | <b>mg/kg</b> | <b>0.093</b> | <b>0.35</b> |

#### TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 560  | 6500   |
| Barium    | 1  | mg/kg | 28   | 330    |
| Calcium   | 1  | mg/kg | 2800 | 5700   |
| Chromium  | 1  | mg/kg | 14   | 19     |
| Cobalt    | 1  | mg/kg | 6.9  | 11     |
| Copper    | 1  | mg/kg | 14   | 15     |
| Iron      | 1  | mg/kg | 560  | 31000  |
| Lead      | 1  | mg/kg | 14   | 21     |
| Magnesium | 1  | mg/kg | 1400 | 2600   |
| Manganese | 10 | mg/kg | 280  | 17000  |
| Nickel    | 1  | mg/kg | 14   | ND     |
| Potassium | 1  | mg/kg | 1400 | 1500   |
| Sodium    | 1  | mg/kg | 690  | ND     |
| Vanadium  | 1  | mg/kg | 28   | ND     |
| Zinc      | 1  | mg/kg | 28   | 69     |

#### TAL Metals 6020B

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | mg/kg | 2.2  | ND     |
| Arsenic   | 1  | mg/kg | 0.56 | 1.9    |
| Beryllium | 1  | mg/kg | 0.56 | ND     |
| Cadmium   | 1  | mg/kg | 1.1  | ND     |
| Selenium  | 1  | mg/kg | 5.6  | ND     |
| Silver    | 1  | mg/kg | 0.56 | ND     |
| Thallium  | 1  | mg/kg | 1.1  | ND     |

Sample ID: SD-1-102018  
 Lab#: AD07161-002  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.982 | mg/kg | 0.0044 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1,2-Trichloroethane                 | 0.982 | mg/kg | 0.0045 | ND     |
| 1,1-Dichloroethane                    | 0.982 | mg/kg | 0.0027 | ND     |
| 1,1-Dichloroethene                    | 0.982 | mg/kg | 0.0027 | ND     |
| 1,2,3-Trichlorobenzene                | 0.982 | mg/kg | 0.0034 | ND     |
| 1,2,4-Trichlorobenzene                | 0.982 | mg/kg | 0.0044 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.982 | mg/kg | 0.0045 | ND     |
| 1,2-Dibromoethane                     | 0.982 | mg/kg | 0.0027 | ND     |
| 1,2-Dichlorobenzene                   | 0.982 | mg/kg | 0.0053 | ND     |
| 1,2-Dichloroethane                    | 0.982 | mg/kg | 0.0042 | ND     |
| 1,2-Dichloropropane                   | 0.982 | mg/kg | 0.0036 | ND     |
| 1,3-Dichlorobenzene                   | 0.982 | mg/kg | 0.0041 | ND     |
| 1,4-Dichlorobenzene                   | 0.982 | mg/kg | 0.0030 | ND     |
| 1,4-Dioxane                           | 0.982 | mg/kg | 0.21   | ND     |
| 2-Butanone                            | 0.982 | mg/kg | 0.0054 | ND     |
| 2-Hexanone                            | 0.982 | mg/kg | 0.0049 | ND     |
| 4-Methyl-2-pentanone                  | 0.982 | mg/kg | 0.0054 | ND     |
| Acetone                               | 0.982 | mg/kg | 0.027  | ND     |
| Benzene                               | 0.982 | mg/kg | 0.0027 | ND     |
| Bromochloromethane                    | 0.982 | mg/kg | 0.0047 | ND     |
| Bromodichloromethane                  | 0.982 | mg/kg | 0.0033 | ND     |
| Bromoform                             | 0.982 | mg/kg | 0.0048 | ND     |
| Bromomethane                          | 0.982 | mg/kg | 0.0035 | ND     |
| Carbon disulfide                      | 0.982 | mg/kg | 0.0027 | ND     |
| Carbon tetrachloride                  | 0.982 | mg/kg | 0.0027 | ND     |
| Chlorobenzene                         | 0.982 | mg/kg | 0.0027 | ND     |
| Chloroethane                          | 0.982 | mg/kg | 0.0051 | ND     |
| Chloroform                            | 0.982 | mg/kg | 0.0044 | ND     |
| Chloromethane                         | 0.982 | mg/kg | 0.0027 | ND     |
| cis-1,2-Dichloroethene                | 0.982 | mg/kg | 0.0029 | ND     |
| cis-1,3-Dichloropropene               | 0.982 | mg/kg | 0.0027 | ND     |
| Cyclohexane                           | 0.982 | mg/kg | 0.0027 | ND     |
| Dibromochloromethane                  | 0.982 | mg/kg | 0.0033 | ND     |
| Dichlorodifluoromethane               | 0.982 | mg/kg | 0.0027 | ND     |
| Ethylbenzene                          | 0.982 | mg/kg | 0.0027 | ND     |
| Isopropylbenzene                      | 0.982 | mg/kg | 0.0027 | ND     |
| m&p-Xylenes                           | 0.982 | mg/kg | 0.0027 | ND     |
| Methyl Acetate                        | 0.982 | mg/kg | 0.0046 | ND     |
| Methylcyclohexane                     | 0.982 | mg/kg | 0.0027 | ND     |
| Methylene chloride                    | 0.982 | mg/kg | 0.0049 | ND     |
| Methyl-t-butyl ether                  | 0.982 | mg/kg | 0.0027 | ND     |
| o-Xylene                              | 0.982 | mg/kg | 0.0027 | ND     |
| Styrene                               | 0.982 | mg/kg | 0.0027 | ND     |
| Tetrachloroethene                     | 0.982 | mg/kg | 0.0030 | ND     |
| Toluene                               | 0.982 | mg/kg | 0.0027 | ND     |
| trans-1,2-Dichloroethene              | 0.982 | mg/kg | 0.0028 | ND     |
| trans-1,3-Dichloropropene             | 0.982 | mg/kg | 0.0043 | ND     |
| Trichloroethene                       | 0.982 | mg/kg | 0.0032 | ND     |
| Trichlorofluoromethane                | 0.982 | mg/kg | 0.0027 | ND     |
| Vinyl chloride                        | 0.982 | mg/kg | 0.0027 | ND     |
| Xylenes (Total)                       | 0.982 | mg/kg | 0.0027 | ND     |

Sample ID: SW-2-102018  
 Lab#: AD07161-003  
 Matrix: Aqueous

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 7.8    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg cac03/l | 6.6 | 160    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 0.58 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 0.58 | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.14 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 0.58 | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 2.9  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 0.58 | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.14 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.14 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 0.58 | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 2.9  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 0.58 | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 0.58 | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.14 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 0.58 | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| Acenaphthene               | 1  | ug/l  | 0.58 | ND     |
| Acenaphthylene             | 1  | ug/l  | 0.58 | ND     |
| Acetophenone               | 1  | ug/l  | 0.58 | ND     |
| Anthracene                 | 1  | ug/l  | 0.58 | ND     |
| Atrazine                   | 1  | ug/l  | 0.58 | ND     |
| Benzaldehyde               | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 0.58 | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 0.58 | ND     |

Sample ID: SW-2-102018

Lab#: AD07161-003

Matrix: Aqueous

Collection Date: 10/17/2018

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.14 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 0.58 | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 0.58 | ND |
| Butylbenzylphthalate        | 1 | ug/l | 0.58 | ND |
| Caprolactam                 | 1 | ug/l | 0.58 | ND |
| Carbazole                   | 1 | ug/l | 0.58 | ND |
| Chrysene                    | 1 | ug/l | 0.58 | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 0.58 | ND |
| Dibenzofuran                | 1 | ug/l | 0.14 | ND |
| Diethylphthalate            | 1 | ug/l | 0.58 | ND |
| Dimethylphthalate           | 1 | ug/l | 0.58 | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.14 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 0.58 | ND |
| Fluoranthene                | 1 | ug/l | 0.58 | ND |
| Fluorene                    | 1 | ug/l | 0.58 | ND |
| Hexachlorobenzene           | 1 | ug/l | 0.58 | ND |
| Hexachlorobutadiene         | 1 | ug/l | 0.58 | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 0.58 | ND |
| Hexachloroethane            | 1 | ug/l | 0.58 | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 0.58 | ND |
| Isophorone                  | 1 | ug/l | 0.58 | ND |
| Naphthalene                 | 1 | ug/l | 0.14 | ND |
| Nitrobenzene                | 1 | ug/l | 0.58 | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.14 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 0.58 | ND |
| Pentachlorophenol           | 1 | ug/l | 2.9  | ND |
| Phenanthrene                | 1 | ug/l | 0.58 | ND |
| Phenol                      | 1 | ug/l | 0.58 | ND |
| Pyrene                      | 1 | ug/l | 0.58 | ND |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | ND     |
| Calcium   | 1  | ug/l  | 5000 | 44000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 330    |
| Magnesium | 1  | ug/l  | 5000 | 12000  |
| Manganese | 1  | ug/l  | 40   | 280    |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | ND     |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 14000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

Sample ID: SW-2-102018  
 Lab#: AD07161-003  
 Matrix: Aqueous

Collection Date: 10/17/2018  
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## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-2-102018  
 Lab#: AD07161-004  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 16     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/kg | 120 | ND     |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL  | Result |
|---------|----|-------|-----|--------|
| Cyanide | 1  | mg/kg | 1.5 | 1.9    |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.52 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.21  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.21  | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.21  | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.21  | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.21  | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.052 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.052 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 1.0   | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.21  | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.21  | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.21  | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.21  | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.21  | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.052 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.21  | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.052 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.21  | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 1.0   | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.21  | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.21  | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.052 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.21  | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.21  | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.21  | ND     |
| Acenaphthene               | 1  | mg/kg | 0.21  | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.21  | ND     |
| Acetophenone               | 1  | mg/kg | 0.21  | ND     |
| Anthracene                 | 1  | mg/kg | 0.21  | ND     |
| Atrazine                   | 1  | mg/kg | 0.21  | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.21  | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.21  | 0.29   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.21  | 0.36   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.21  | 0.58   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.21  | 0.30   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.21  | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.21  | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.052 | ND     |

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 Matrix: Sediment/Encore

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|                               |          |              |             |             |
|-------------------------------|----------|--------------|-------------|-------------|
| bis(2-Chloroisopropyl)ether   | 1        | mg/kg        | 0.21        | ND          |
| bis(2-Ethylhexyl)phthalate    | 1        | mg/kg        | 0.21        | ND          |
| Butylbenzylphthalate          | 1        | mg/kg        | 0.21        | ND          |
| Caprolactam                   | 1        | mg/kg        | 0.21        | ND          |
| Carbazole                     | 1        | mg/kg        | 0.21        | ND          |
| <b>Chrysene</b>               | <b>1</b> | <b>mg/kg</b> | <b>0.21</b> | <b>0.41</b> |
| Dibenzo[a,h]anthracene        | 1        | mg/kg        | 0.21        | ND          |
| Dibenzofuran                  | 1        | mg/kg        | 0.052       | ND          |
| Diethylphthalate              | 1        | mg/kg        | 0.21        | ND          |
| Dimethylphthalate             | 1        | mg/kg        | 0.21        | ND          |
| Di-n-butylphthalate           | 1        | mg/kg        | 0.052       | ND          |
| Di-n-octylphthalate           | 1        | mg/kg        | 0.21        | ND          |
| <b>Fluoranthene</b>           | <b>1</b> | <b>mg/kg</b> | <b>0.21</b> | <b>0.50</b> |
| Fluorene                      | 1        | mg/kg        | 0.21        | ND          |
| Hexachlorobenzene             | 1        | mg/kg        | 0.21        | ND          |
| Hexachlorobutadiene           | 1        | mg/kg        | 0.21        | ND          |
| Hexachlorocyclopentadiene     | 1        | mg/kg        | 0.21        | ND          |
| Hexachloroethane              | 1        | mg/kg        | 0.21        | ND          |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>1</b> | <b>mg/kg</b> | <b>0.21</b> | <b>0.22</b> |
| Isophorone                    | 1        | mg/kg        | 0.21        | ND          |
| Naphthalene                   | 1        | mg/kg        | 0.052       | ND          |
| Nitrobenzene                  | 1        | mg/kg        | 0.21        | ND          |
| N-Nitroso-di-n-propylamine    | 1        | mg/kg        | 0.052       | ND          |
| N-Nitrosodiphenylamine        | 1        | mg/kg        | 0.21        | ND          |
| Pentachlorophenol             | 1        | mg/kg        | 1.0         | ND          |
| Phenanthrene                  | 1        | mg/kg        | 0.21        | ND          |
| Phenol                        | 1        | mg/kg        | 0.21        | ND          |
| <b>Pyrene</b>                 | <b>1</b> | <b>mg/kg</b> | <b>0.21</b> | <b>0.56</b> |

#### TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 1200 | 8900   |
| Barium    | 1  | mg/kg | 62   | 420    |
| Calcium   | 1  | mg/kg | 6200 | 13000  |
| Chromium  | 1  | mg/kg | 31   | ND     |
| Cobalt    | 1  | mg/kg | 16   | ND     |
| Copper    | 1  | mg/kg | 31   | 45     |
| Iron      | 1  | mg/kg | 1200 | 34000  |
| Lead      | 1  | mg/kg | 31   | 51     |
| Magnesium | 1  | mg/kg | 3100 | 5200   |
| Manganese | 4  | mg/kg | 250  | 18000  |
| Nickel    | 1  | mg/kg | 31   | ND     |
| Potassium | 1  | mg/kg | 3100 | ND     |
| Sodium    | 1  | mg/kg | 1600 | ND     |
| Vanadium  | 1  | mg/kg | 62   | ND     |
| Zinc      | 1  | mg/kg | 62   | 260    |

#### TAL Metals 6020B

| Analyte        | DF       | Units        | RL         | Result     |
|----------------|----------|--------------|------------|------------|
| Antimony       | 1        | mg/kg        | 5.0        | ND         |
| <b>Arsenic</b> | <b>1</b> | <b>mg/kg</b> | <b>1.2</b> | <b>5.5</b> |
| Beryllium      | 1        | mg/kg        | 1.2        | ND         |
| Cadmium        | 1        | mg/kg        | 2.5        | ND         |
| Selenium       | 1        | mg/kg        | 13         | ND         |
| Silver         | 1        | mg/kg        | 1.2        | ND         |
| Thallium       | 1        | mg/kg        | 2.5        | ND         |

Sample ID: SD-2-102018  
 Lab#: AD07161-004  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.818 | mg/kg | 0.0083 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1,2-Trichloroethane                 | 0.818 | mg/kg | 0.0085 | ND     |
| 1,1-Dichloroethane                    | 0.818 | mg/kg | 0.0051 | ND     |
| 1,1-Dichloroethene                    | 0.818 | mg/kg | 0.0051 | ND     |
| 1,2,3-Trichlorobenzene                | 0.818 | mg/kg | 0.0063 | ND     |
| 1,2,4-Trichlorobenzene                | 0.818 | mg/kg | 0.0082 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.818 | mg/kg | 0.0084 | ND     |
| 1,2-Dibromoethane                     | 0.818 | mg/kg | 0.0051 | ND     |
| 1,2-Dichlorobenzene                   | 0.818 | mg/kg | 0.0099 | ND     |
| 1,2-Dichloroethane                    | 0.818 | mg/kg | 0.0079 | ND     |
| 1,2-Dichloropropane                   | 0.818 | mg/kg | 0.0068 | ND     |
| 1,3-Dichlorobenzene                   | 0.818 | mg/kg | 0.0077 | ND     |
| 1,4-Dichlorobenzene                   | 0.818 | mg/kg | 0.0057 | ND     |
| 1,4-Dioxane                           | 0.818 | mg/kg | 0.39   | ND     |
| 2-Butanone                            | 0.818 | mg/kg | 0.010  | ND     |
| 2-Hexanone                            | 0.818 | mg/kg | 0.0093 | ND     |
| 4-Methyl-2-pentanone                  | 0.818 | mg/kg | 0.010  | ND     |
| Acetone                               | 0.818 | mg/kg | 0.051  | ND     |
| Benzene                               | 0.818 | mg/kg | 0.0051 | ND     |
| Bromochloromethane                    | 0.818 | mg/kg | 0.0087 | ND     |
| Bromodichloromethane                  | 0.818 | mg/kg | 0.0061 | ND     |
| Bromoform                             | 0.818 | mg/kg | 0.0090 | ND     |
| Bromomethane                          | 0.818 | mg/kg | 0.0066 | ND     |
| Carbon disulfide                      | 0.818 | mg/kg | 0.0051 | ND     |
| Carbon tetrachloride                  | 0.818 | mg/kg | 0.0051 | ND     |
| Chlorobenzene                         | 0.818 | mg/kg | 0.0051 | ND     |
| Chloroethane                          | 0.818 | mg/kg | 0.0095 | ND     |
| Chloroform                            | 0.818 | mg/kg | 0.0083 | ND     |
| Chloromethane                         | 0.818 | mg/kg | 0.0051 | ND     |
| cis-1,2-Dichloroethene                | 0.818 | mg/kg | 0.0055 | ND     |
| cis-1,3-Dichloropropene               | 0.818 | mg/kg | 0.0051 | ND     |
| Cyclohexane                           | 0.818 | mg/kg | 0.0051 | ND     |
| Dibromochloromethane                  | 0.818 | mg/kg | 0.0061 | ND     |
| Dichlorodifluoromethane               | 0.818 | mg/kg | 0.0051 | ND     |
| Ethylbenzene                          | 0.818 | mg/kg | 0.0051 | ND     |
| Isopropylbenzene                      | 0.818 | mg/kg | 0.0051 | ND     |
| m&p-Xylenes                           | 0.818 | mg/kg | 0.0051 | ND     |
| Methyl Acetate                        | 0.818 | mg/kg | 0.0087 | ND     |
| Methylcyclohexane                     | 0.818 | mg/kg | 0.0051 | ND     |
| Methylene chloride                    | 0.818 | mg/kg | 0.0092 | ND     |
| Methyl-t-butyl ether                  | 0.818 | mg/kg | 0.0051 | ND     |
| o-Xylene                              | 0.818 | mg/kg | 0.0051 | ND     |
| Styrene                               | 0.818 | mg/kg | 0.0051 | ND     |
| Tetrachloroethene                     | 0.818 | mg/kg | 0.0056 | ND     |
| Toluene                               | 0.818 | mg/kg | 0.0051 | ND     |
| trans-1,2-Dichloroethene              | 0.818 | mg/kg | 0.0052 | ND     |
| trans-1,3-Dichloropropene             | 0.818 | mg/kg | 0.0061 | ND     |
| Trichloroethene                       | 0.818 | mg/kg | 0.0060 | ND     |
| Trichlorofluoromethane                | 0.818 | mg/kg | 0.0051 | ND     |
| Vinyl chloride                        | 0.818 | mg/kg | 0.0051 | ND     |
| Xylenes (Total)                       | 0.818 | mg/kg | 0.0051 | ND     |



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 Lab#: AD07161-005  
 Matrix: Aqueous

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## Chloride (Water) 300.0

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 5  | mg/l  | 10 | 170    |

## Cyanide (Water) 9012B

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

## Hardness 200.7

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg cac03/l | 6.6 | 500    |

## Mercury (Water) 7470A

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

## Semivolatile Organics (no search) 625.1

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 0.58 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 0.58 | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.14 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 0.58 | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 0.58 | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.14 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 2.9  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 0.58 | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 0.58 | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 0.58 | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.14 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.14 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 0.58 | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 2.9  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 0.58 | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 0.58 | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.14 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 0.58 | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 0.58 | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 0.58 | ND     |
| Acenaphthene               | 1  | ug/l  | 0.58 | ND     |
| Acenaphthylene             | 1  | ug/l  | 0.58 | ND     |
| Acetophenone               | 1  | ug/l  | 0.58 | ND     |
| Anthracene                 | 1  | ug/l  | 0.58 | ND     |
| Atrazine                   | 1  | ug/l  | 0.58 | ND     |
| Benzaldehyde               | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 0.58 | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 0.58 | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 0.58 | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 0.58 | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 0.58 | ND     |

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.14 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 0.58 | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 0.58 | ND |
| Butylbenzylphthalate        | 1 | ug/l | 0.58 | ND |
| Caprolactam                 | 1 | ug/l | 0.58 | ND |
| Carbazole                   | 1 | ug/l | 0.58 | ND |
| Chrysene                    | 1 | ug/l | 0.58 | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 0.58 | ND |
| Dibenzofuran                | 1 | ug/l | 0.14 | ND |
| Diethylphthalate            | 1 | ug/l | 0.58 | ND |
| Dimethylphthalate           | 1 | ug/l | 0.58 | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.14 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 0.58 | ND |
| Fluoranthene                | 1 | ug/l | 0.58 | ND |
| Fluorene                    | 1 | ug/l | 0.58 | ND |
| Hexachlorobenzene           | 1 | ug/l | 0.58 | ND |
| Hexachlorobutadiene         | 1 | ug/l | 0.58 | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 0.58 | ND |
| Hexachloroethane            | 1 | ug/l | 0.58 | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 0.58 | ND |
| Isophorone                  | 1 | ug/l | 0.58 | ND |
| Naphthalene                 | 1 | ug/l | 0.14 | ND |
| Nitrobenzene                | 1 | ug/l | 0.58 | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.14 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 0.58 | ND |
| Pentachlorophenol           | 1 | ug/l | 2.9  | ND |
| Phenanthrene                | 1 | ug/l | 0.58 | ND |
| Phenol                      | 1 | ug/l | 0.58 | ND |
| Pyrene                      | 1 | ug/l | 0.58 | ND |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | 92     |
| Calcium   | 1  | ug/l  | 5000 | 170000 |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1000   |
| Magnesium | 1  | ug/l  | 5000 | 24000  |
| Manganese | 1  | ug/l  | 40   | 980    |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 8100   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 99000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

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Lab#: AD07161-005

Matrix: Aqueous

Collection Date: 10/17/2018

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## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

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 Matrix: Sediment/Encore

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**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 55     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 36 | 200    |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.44 | 1.3    |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.15 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.061 | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.061 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.061 | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.061 | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.061 | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.015 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.015 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.30  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.061 | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.061 | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.061 | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.061 | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.061 | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.015 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.061 | ND     |
| 3&4-Methylphenol           | 1  | mg/kg | 0.015 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.061 | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.30  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.061 | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.061 | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.015 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.061 | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.061 | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.061 | ND     |
| Acenaphthene               | 1  | mg/kg | 0.061 | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.061 | ND     |
| Acetophenone               | 1  | mg/kg | 0.061 | ND     |
| Anthracene                 | 1  | mg/kg | 0.061 | ND     |
| Atrazine                   | 1  | mg/kg | 0.061 | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.061 | ND     |
| Benzo[a]anthracene         | 1  | mg/kg | 0.061 | 0.075  |
| Benzo[a]pyrene             | 1  | mg/kg | 0.061 | 0.075  |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.061 | 0.11   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.061 | ND     |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.061 | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.061 | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.015 | ND     |

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|                             |   |       |       |       |
|-----------------------------|---|-------|-------|-------|
| bis(2-Chloroisopropyl)ether | 1 | mg/kg | 0.061 | ND    |
| bis(2-Ethylhexyl)phthalate  | 1 | mg/kg | 0.061 | ND    |
| Butylbenzylphthalate        | 1 | mg/kg | 0.061 | ND    |
| Caprolactam                 | 1 | mg/kg | 0.061 | ND    |
| Carbazole                   | 1 | mg/kg | 0.061 | ND    |
| Chrysene                    | 1 | mg/kg | 0.061 | 0.071 |
| Dibenzo[a,h]anthracene      | 1 | mg/kg | 0.061 | ND    |
| Dibenzofuran                | 1 | mg/kg | 0.015 | ND    |
| Diethylphthalate            | 1 | mg/kg | 0.061 | ND    |
| Dimethylphthalate           | 1 | mg/kg | 0.061 | ND    |
| Di-n-butylphthalate         | 1 | mg/kg | 0.015 | ND    |
| Di-n-octylphthalate         | 1 | mg/kg | 0.061 | ND    |
| Fluoranthene                | 1 | mg/kg | 0.061 | 0.13  |
| Fluorene                    | 1 | mg/kg | 0.061 | ND    |
| Hexachlorobenzene           | 1 | mg/kg | 0.061 | ND    |
| Hexachlorobutadiene         | 1 | mg/kg | 0.061 | ND    |
| Hexachlorocyclopentadiene   | 1 | mg/kg | 0.061 | ND    |
| Hexachloroethane            | 1 | mg/kg | 0.061 | ND    |
| Indeno[1,2,3-cd]pyrene      | 1 | mg/kg | 0.061 | ND    |
| Isophorone                  | 1 | mg/kg | 0.061 | ND    |
| Naphthalene                 | 1 | mg/kg | 0.015 | ND    |
| Nitrobenzene                | 1 | mg/kg | 0.061 | ND    |
| N-Nitroso-di-n-propylamine  | 1 | mg/kg | 0.015 | ND    |
| N-Nitrosodiphenylamine      | 1 | mg/kg | 0.061 | ND    |
| Pentachlorophenol           | 1 | mg/kg | 0.30  | ND    |
| Phenanthrene                | 1 | mg/kg | 0.061 | ND    |
| Phenol                      | 1 | mg/kg | 0.061 | ND    |
| Pyrene                      | 1 | mg/kg | 0.061 | 0.13  |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 360  | 27000  |
| Barium    | 1  | mg/kg | 18   | 160    |
| Calcium   | 1  | mg/kg | 1800 | 49000  |
| Chromium  | 1  | mg/kg | 9.1  | 42     |
| Cobalt    | 1  | mg/kg | 4.5  | 15     |
| Copper    | 1  | mg/kg | 9.1  | 45     |
| Iron      | 1  | mg/kg | 360  | 35000  |
| Lead      | 1  | mg/kg | 9.1  | 150    |
| Magnesium | 1  | mg/kg | 910  | 30000  |
| Manganese | 1  | mg/kg | 18   | 430    |
| Nickel    | 1  | mg/kg | 9.1  | 35     |
| Potassium | 1  | mg/kg | 910  | 2800   |
| Sodium    | 1  | mg/kg | 450  | 650    |
| Vanadium  | 1  | mg/kg | 18   | 68     |
| Zinc      | 1  | mg/kg | 18   | 200    |

## TAL Metals 6020B

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | mg/kg | 1.5  | ND     |
| Arsenic   | 1  | mg/kg | 0.36 | 4.2    |
| Beryllium | 1  | mg/kg | 0.36 | 0.56   |
| Cadmium   | 1  | mg/kg | 0.73 | 1.2    |
| Selenium  | 1  | mg/kg | 3.6  | ND     |
| Silver    | 1  | mg/kg | 0.36 | ND     |
| Thallium  | 1  | mg/kg | 0.73 | ND     |

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 Matrix: Sediment/Encore

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## Volatile Organics (no search) 8260

| Analyte                               | DF    | Units | RL     | Result |
|---------------------------------------|-------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1,2,2-Tetrachloroethane             | 0.826 | mg/kg | 0.0024 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1,2-Trichloroethane                 | 0.826 | mg/kg | 0.0025 | ND     |
| 1,1-Dichloroethane                    | 0.826 | mg/kg | 0.0015 | ND     |
| 1,1-Dichloroethene                    | 0.826 | mg/kg | 0.0015 | ND     |
| 1,2,3-Trichlorobenzene                | 0.826 | mg/kg | 0.0019 | ND     |
| 1,2,4-Trichlorobenzene                | 0.826 | mg/kg | 0.0024 | ND     |
| 1,2-Dibromo-3-chloropropane           | 0.826 | mg/kg | 0.0025 | ND     |
| 1,2-Dibromoethane                     | 0.826 | mg/kg | 0.0015 | ND     |
| 1,2-Dichlorobenzene                   | 0.826 | mg/kg | 0.0029 | ND     |
| 1,2-Dichloroethane                    | 0.826 | mg/kg | 0.0023 | ND     |
| 1,2-Dichloropropane                   | 0.826 | mg/kg | 0.0020 | ND     |
| 1,3-Dichlorobenzene                   | 0.826 | mg/kg | 0.0023 | ND     |
| 1,4-Dichlorobenzene                   | 0.826 | mg/kg | 0.0017 | ND     |
| 1,4-Dioxane                           | 0.826 | mg/kg | 0.12   | ND     |
| 2-Butanone                            | 0.826 | mg/kg | 0.0030 | ND     |
| 2-Hexanone                            | 0.826 | mg/kg | 0.0027 | ND     |
| 4-Methyl-2-pentanone                  | 0.826 | mg/kg | 0.0030 | ND     |
| Acetone                               | 0.826 | mg/kg | 0.015  | ND     |
| Benzene                               | 0.826 | mg/kg | 0.0015 | ND     |
| Bromochloromethane                    | 0.826 | mg/kg | 0.0026 | ND     |
| Bromodichloromethane                  | 0.826 | mg/kg | 0.0018 | ND     |
| Bromoform                             | 0.826 | mg/kg | 0.0026 | ND     |
| Bromomethane                          | 0.826 | mg/kg | 0.0020 | ND     |
| Carbon disulfide                      | 0.826 | mg/kg | 0.0015 | ND     |
| Carbon tetrachloride                  | 0.826 | mg/kg | 0.0015 | ND     |
| Chlorobenzene                         | 0.826 | mg/kg | 0.0015 | ND     |
| Chloroethane                          | 0.826 | mg/kg | 0.0028 | ND     |
| Chloroform                            | 0.826 | mg/kg | 0.0024 | ND     |
| Chloromethane                         | 0.826 | mg/kg | 0.0015 | ND     |
| cis-1,2-Dichloroethene                | 0.826 | mg/kg | 0.0016 | ND     |
| cis-1,3-Dichloropropene               | 0.826 | mg/kg | 0.0015 | ND     |
| Cyclohexane                           | 0.826 | mg/kg | 0.0015 | ND     |
| Dibromochloromethane                  | 0.826 | mg/kg | 0.0018 | ND     |
| Dichlorodifluoromethane               | 0.826 | mg/kg | 0.0015 | ND     |
| Ethylbenzene                          | 0.826 | mg/kg | 0.0015 | ND     |
| Isopropylbenzene                      | 0.826 | mg/kg | 0.0015 | ND     |
| m&p-Xylenes                           | 0.826 | mg/kg | 0.0015 | ND     |
| Methyl Acetate                        | 0.826 | mg/kg | 0.0026 | ND     |
| Methylcyclohexane                     | 0.826 | mg/kg | 0.0015 | ND     |
| Methylene chloride                    | 0.826 | mg/kg | 0.0027 | ND     |
| Methyl-t-butyl ether                  | 0.826 | mg/kg | 0.0015 | ND     |
| o-Xylene                              | 0.826 | mg/kg | 0.0015 | ND     |
| Styrene                               | 0.826 | mg/kg | 0.0015 | ND     |
| Tetrachloroethene                     | 0.826 | mg/kg | 0.0016 | ND     |
| Toluene                               | 0.826 | mg/kg | 0.0015 | ND     |
| trans-1,2-Dichloroethene              | 0.826 | mg/kg | 0.0015 | ND     |
| trans-1,3-Dichloropropene             | 0.826 | mg/kg | 0.0024 | ND     |
| Trichloroethene                       | 0.826 | mg/kg | 0.0018 | ND     |
| Trichlorofluoromethane                | 0.826 | mg/kg | 0.0015 | ND     |
| Vinyl chloride                        | 0.826 | mg/kg | 0.0015 | ND     |
| Xylenes (Total)                       | 0.826 | mg/kg | 0.0015 | ND     |

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Matrix: Aqueous

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**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 5  | mg/l  | 10 | 150    |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg cac03/l | 6.6 | 500    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.26 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | ND     |
| Barium    | 1  | ug/l  | 50   | 110    |
| Calcium   | 1  | ug/l  | 5000 | 190000 |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 1200   |
| Magnesium | 1  | ug/l  | 5000 | 27000  |
| Manganese | 1  | ug/l  | 40   | 1100   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 9500   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 120000 |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | ND     |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | ND     |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | ND     |
| Lead      | 1  | ug/l  | 3.0 | ND     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |



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Matrix: Aqueous

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## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

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Lab#: AD07161-008

Matrix: Aqueous

Collection Date: 10/17/2018

Receipt Date: 10/17/2018

**Chloride (Water) 300.0**

| Analyte  | DF | Units | RL  | Result |
|----------|----|-------|-----|--------|
| Chloride | 1  | mg/l  | 2.0 | 41     |

**Cyanide (Water) 9012B**

| Analyte | DF | Units | RL    | Result |
|---------|----|-------|-------|--------|
| Cyanide | 1  | mg/l  | 0.020 | ND     |

**Hardness 200.7**

| Analyte  | DF | Units      | RL  | Result |
|----------|----|------------|-----|--------|
| Hardness | 1  | mg caco3/l | 6.6 | 310    |

**Mercury (Water) 7470A**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | ug/l  | 0.50 | ND     |

**Semivolatile Organics (no search) 625.1**

| Analyte                    | DF | Units | RL   | Result |
|----------------------------|----|-------|------|--------|
| 1,1'-Biphenyl              | 1  | ug/l  | 1.0  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                | 1  | ug/l  | 0.26 | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | ug/l  | 1.0  | ND     |
| 2,4,5-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4,6-Trichlorophenol      | 1  | ug/l  | 1.0  | ND     |
| 2,4-Dichlorophenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dimethylphenol         | 1  | ug/l  | 0.26 | ND     |
| 2,4-Dinitrophenol          | 1  | ug/l  | 5.2  | ND     |
| 2,4-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2,6-Dinitrotoluene         | 1  | ug/l  | 1.0  | ND     |
| 2-Chloronaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Chlorophenol             | 1  | ug/l  | 1.0  | ND     |
| 2-Methylnaphthalene        | 1  | ug/l  | 1.0  | ND     |
| 2-Methylphenol             | 1  | ug/l  | 0.26 | ND     |
| 2-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 2-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| 3&4-Methylphenol           | 1  | ug/l  | 0.26 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | ug/l  | 1.0  | ND     |
| 3-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | ug/l  | 5.2  | ND     |
| 4-Bromophenyl-phenylether  | 1  | ug/l  | 1.0  | ND     |
| 4-Chloro-3-methylphenol    | 1  | ug/l  | 1.0  | ND     |
| 4-Chloroaniline            | 1  | ug/l  | 0.26 | ND     |
| 4-Chlorophenyl-phenylether | 1  | ug/l  | 1.0  | ND     |
| 4-Nitroaniline             | 1  | ug/l  | 1.0  | ND     |
| 4-Nitrophenol              | 1  | ug/l  | 1.0  | ND     |
| Acenaphthene               | 1  | ug/l  | 1.0  | ND     |
| Acenaphthylene             | 1  | ug/l  | 1.0  | ND     |
| Acetophenone               | 1  | ug/l  | 1.0  | ND     |
| Anthracene                 | 1  | ug/l  | 1.0  | ND     |
| Atrazine                   | 1  | ug/l  | 1.0  | ND     |
| Benzaldehyde               | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]anthracene         | 1  | ug/l  | 1.0  | ND     |
| Benzo[a]pyrene             | 1  | ug/l  | 1.0  | ND     |
| Benzo[b]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[g,h,i]perylene       | 1  | ug/l  | 1.0  | ND     |
| Benzo[k]fluoranthene       | 1  | ug/l  | 1.0  | ND     |
| bis(2-Chloroethoxy)methane | 1  | ug/l  | 1.0  | ND     |

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|                             |   |      |      |    |
|-----------------------------|---|------|------|----|
| bis(2-Chloroethyl)ether     | 1 | ug/l | 0.26 | ND |
| bis(2-Chloroisopropyl)ether | 1 | ug/l | 1.0  | ND |
| bis(2-Ethylhexyl)phthalate  | 1 | ug/l | 1.0  | ND |
| Butylbenzylphthalate        | 1 | ug/l | 1.0  | ND |
| Caprolactam                 | 1 | ug/l | 1.0  | ND |
| Carbazole                   | 1 | ug/l | 1.0  | ND |
| Chrysene                    | 1 | ug/l | 1.0  | ND |
| Dibenzo[a,h]anthracene      | 1 | ug/l | 1.0  | ND |
| Dibenzofuran                | 1 | ug/l | 0.26 | ND |
| Diethylphthalate            | 1 | ug/l | 1.0  | ND |
| Dimethylphthalate           | 1 | ug/l | 1.0  | ND |
| Di-n-butylphthalate         | 1 | ug/l | 0.26 | ND |
| Di-n-octylphthalate         | 1 | ug/l | 1.0  | ND |
| Fluoranthene                | 1 | ug/l | 1.0  | ND |
| Fluorene                    | 1 | ug/l | 1.0  | ND |
| Hexachlorobenzene           | 1 | ug/l | 1.0  | ND |
| Hexachlorobutadiene         | 1 | ug/l | 1.0  | ND |
| Hexachlorocyclopentadiene   | 1 | ug/l | 1.0  | ND |
| Hexachloroethane            | 1 | ug/l | 1.0  | ND |
| Indeno[1,2,3-cd]pyrene      | 1 | ug/l | 1.0  | ND |
| Isophorone                  | 1 | ug/l | 1.0  | ND |
| Naphthalene                 | 1 | ug/l | 0.26 | ND |
| Nitrobenzene                | 1 | ug/l | 1.0  | ND |
| N-Nitroso-di-n-propylamine  | 1 | ug/l | 0.26 | ND |
| N-Nitrosodiphenylamine      | 1 | ug/l | 1.0  | ND |
| Pentachlorophenol           | 1 | ug/l | 5.2  | ND |
| Phenanthrene                | 1 | ug/l | 1.0  | ND |
| Phenol                      | 1 | ug/l | 1.0  | ND |
| Pyrene                      | 1 | ug/l | 1.0  | ND |

## TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | ug/l  | 200  | 9000   |
| Barium    | 1  | ug/l  | 50   | 160    |
| Calcium   | 1  | ug/l  | 5000 | 76000  |
| Chromium  | 1  | ug/l  | 50   | ND     |
| Copper    | 1  | ug/l  | 50   | ND     |
| Iron      | 1  | ug/l  | 300  | 20000  |
| Magnesium | 1  | ug/l  | 5000 | 23000  |
| Manganese | 1  | ug/l  | 40   | 4600   |
| Nickel    | 1  | ug/l  | 50   | ND     |
| Potassium | 1  | ug/l  | 5000 | 6200   |
| Silver    | 1  | ug/l  | 20   | ND     |
| Sodium    | 1  | ug/l  | 5000 | 31000  |
| Vanadium  | 1  | ug/l  | 50   | ND     |
| Zinc      | 1  | ug/l  | 50   | 110    |

## TAL Metals 6020B

| Analyte   | DF | Units | RL  | Result |
|-----------|----|-------|-----|--------|
| Antimony  | 1  | ug/l  | 3.0 | ND     |
| Arsenic   | 1  | ug/l  | 2.0 | 2.6    |
| Beryllium | 1  | ug/l  | 1.0 | ND     |
| Cadmium   | 1  | ug/l  | 2.0 | ND     |
| Cobalt    | 1  | ug/l  | 2.0 | 5.8    |
| Lead      | 1  | ug/l  | 3.0 | 24     |
| Selenium  | 1  | ug/l  | 10  | ND     |
| Thallium  | 1  | ug/l  | 2.0 | ND     |

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Lab#: AD07161-008

Matrix: Aqueous

Collection Date: 10/17/2018

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## Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |

Sample ID: SD-4-102018  
 Lab#: AD07161-009  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**% Solids SM2540G**

| Analyte  | DF | Units   | RL | Result |
|----------|----|---------|----|--------|
| % Solids | 1  | percent |    | 30     |

**Chloride (Soil) 9056A**

| Analyte  | DF | Units | RL | Result |
|----------|----|-------|----|--------|
| Chloride | 1  | mg/kg | 67 | 100    |

**Cyanide (Soil/Waste) 9012B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Cyanide | 1  | mg/kg | 0.80 | ND     |

**Mercury (Soil/Waste) 7471B**

| Analyte | DF | Units | RL   | Result |
|---------|----|-------|------|--------|
| Mercury | 1  | mg/kg | 0.28 | ND     |

**Semivolatile Organics (no search) 8270**

| Analyte                    | DF | Units | RL    | Result |
|----------------------------|----|-------|-------|--------|
| 1,1'-Biphenyl              | 1  | mg/kg | 0.11  | ND     |
| 1,2,4,5-Tetrachlorobenzene | 1  | mg/kg | 0.11  | ND     |
| 2,3,4,6-Tetrachlorophenol  | 1  | mg/kg | 0.11  | ND     |
| 2,4,5-Trichlorophenol      | 1  | mg/kg | 0.11  | ND     |
| 2,4,6-Trichlorophenol      | 1  | mg/kg | 0.11  | ND     |
| 2,4-Dichlorophenol         | 1  | mg/kg | 0.028 | ND     |
| 2,4-Dimethylphenol         | 1  | mg/kg | 0.028 | ND     |
| 2,4-Dinitrophenol          | 1  | mg/kg | 0.56  | ND     |
| 2,4-Dinitrotoluene         | 1  | mg/kg | 0.11  | ND     |
| 2,6-Dinitrotoluene         | 1  | mg/kg | 0.11  | ND     |
| 2-Chloronaphthalene        | 1  | mg/kg | 0.11  | ND     |
| 2-Chlorophenol             | 1  | mg/kg | 0.11  | ND     |
| 2-Methylnaphthalene        | 1  | mg/kg | 0.11  | ND     |
| 2-Methylphenol             | 1  | mg/kg | 0.028 | ND     |
| 2-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 2-Nitrophenol              | 1  | mg/kg | 0.11  | ND     |
| 3,4-Methylphenol           | 1  | mg/kg | 0.028 | ND     |
| 3,3'-Dichlorobenzidine     | 1  | mg/kg | 0.11  | ND     |
| 3-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 4,6-Dinitro-2-methylphenol | 1  | mg/kg | 0.56  | ND     |
| 4-Bromophenyl-phenylether  | 1  | mg/kg | 0.11  | ND     |
| 4-Chloro-3-methylphenol    | 1  | mg/kg | 0.11  | ND     |
| 4-Chloroaniline            | 1  | mg/kg | 0.028 | ND     |
| 4-Chlorophenyl-phenylether | 1  | mg/kg | 0.11  | ND     |
| 4-Nitroaniline             | 1  | mg/kg | 0.11  | ND     |
| 4-Nitrophenol              | 1  | mg/kg | 0.11  | ND     |
| Acenaphthene               | 1  | mg/kg | 0.11  | ND     |
| Acenaphthylene             | 1  | mg/kg | 0.11  | ND     |
| Acetophenone               | 1  | mg/kg | 0.11  | ND     |
| Anthracene                 | 1  | mg/kg | 0.11  | ND     |
| Atrazine                   | 1  | mg/kg | 0.11  | ND     |
| Benzaldehyde               | 1  | mg/kg | 0.11  | 0.60   |
| Benzo[a]anthracene         | 1  | mg/kg | 0.11  | 0.14   |
| Benzo[a]pyrene             | 1  | mg/kg | 0.11  | 0.17   |
| Benzo[b]fluoranthene       | 1  | mg/kg | 0.11  | 0.26   |
| Benzo[g,h,i]perylene       | 1  | mg/kg | 0.11  | 0.14   |
| Benzo[k]fluoranthene       | 1  | mg/kg | 0.11  | ND     |
| bis(2-Chloroethoxy)methane | 1  | mg/kg | 0.11  | ND     |
| bis(2-Chloroethyl)ether    | 1  | mg/kg | 0.028 | ND     |

Sample ID: SD-4-102018  
 Lab#: AD07161-009  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

|                             |          |              |             |             |
|-----------------------------|----------|--------------|-------------|-------------|
| bis(2-Chloroisopropyl)ether | 1        | mg/kg        | 0.11        | ND          |
| bis(2-Ethylhexyl)phthalate  | 1        | mg/kg        | 0.11        | ND          |
| Butylbenzylphthalate        | 1        | mg/kg        | 0.11        | ND          |
| Caprolactam                 | 1        | mg/kg        | 0.11        | ND          |
| Carbazole                   | 1        | mg/kg        | 0.11        | ND          |
| <b>Chrysene</b>             | <b>1</b> | <b>mg/kg</b> | <b>0.11</b> | <b>0.18</b> |
| Dibenzo[a,h]anthracene      | 1        | mg/kg        | 0.11        | ND          |
| Dibenzofuran                | 1        | mg/kg        | 0.028       | ND          |
| Diethylphthalate            | 1        | mg/kg        | 0.11        | ND          |
| Dimethylphthalate           | 1        | mg/kg        | 0.11        | ND          |
| Di-n-butylphthalate         | 1        | mg/kg        | 0.028       | ND          |
| Di-n-octylphthalate         | 1        | mg/kg        | 0.11        | ND          |
| <b>Fluoranthene</b>         | <b>1</b> | <b>mg/kg</b> | <b>0.11</b> | <b>0.27</b> |
| Fluorene                    | 1        | mg/kg        | 0.11        | ND          |
| Hexachlorobenzene           | 1        | mg/kg        | 0.11        | ND          |
| Hexachlorobutadiene         | 1        | mg/kg        | 0.11        | ND          |
| Hexachlorocyclopentadiene   | 1        | mg/kg        | 0.11        | ND          |
| Hexachloroethane            | 1        | mg/kg        | 0.11        | ND          |
| Indeno[1,2,3-cd]pyrene      | 1        | mg/kg        | 0.11        | ND          |
| Isophorone                  | 1        | mg/kg        | 0.11        | ND          |
| Naphthalene                 | 1        | mg/kg        | 0.028       | ND          |
| Nitrobenzene                | 1        | mg/kg        | 0.11        | ND          |
| N-Nitroso-di-n-propylamine  | 1        | mg/kg        | 0.028       | ND          |
| N-Nitrosodiphenylamine      | 1        | mg/kg        | 0.11        | ND          |
| Pentachlorophenol           | 1        | mg/kg        | 0.56        | ND          |
| <b>Phenanthrene</b>         | <b>1</b> | <b>mg/kg</b> | <b>0.11</b> | <b>0.12</b> |
| Phenol                      | 1        | mg/kg        | 0.11        | ND          |
| <b>Pyrene</b>               | <b>1</b> | <b>mg/kg</b> | <b>0.11</b> | <b>0.27</b> |

#### TAL Metals 6010D

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Aluminum  | 1  | mg/kg | 670  | 16000  |
| Barium    | 1  | mg/kg | 33   | 210    |
| Calcium   | 1  | mg/kg | 3300 | 10000  |
| Chromium  | 1  | mg/kg | 17   | 40     |
| Cobalt    | 1  | mg/kg | 8.3  | 13     |
| Copper    | 1  | mg/kg | 17   | 45     |
| Iron      | 1  | mg/kg | 670  | 44000  |
| Lead      | 1  | mg/kg | 17   | 73     |
| Magnesium | 1  | mg/kg | 1700 | 7300   |
| Manganese | 1  | mg/kg | 33   | 1300   |
| Nickel    | 1  | mg/kg | 17   | 30     |
| Potassium | 1  | mg/kg | 1700 | 3400   |
| Sodium    | 1  | mg/kg | 830  | ND     |
| Vanadium  | 1  | mg/kg | 33   | 52     |
| Zinc      | 1  | mg/kg | 33   | 260    |

#### TAL Metals 6020B

| Analyte   | DF | Units | RL   | Result |
|-----------|----|-------|------|--------|
| Antimony  | 1  | mg/kg | 2.7  | ND     |
| Arsenic   | 1  | mg/kg | 0.67 | 4.5    |
| Beryllium | 1  | mg/kg | 0.67 | ND     |
| Cadmium   | 1  | mg/kg | 1.3  | 1.9    |
| Selenium  | 1  | mg/kg | 6.7  | ND     |
| Silver    | 1  | mg/kg | 0.67 | ND     |
| Thallium  | 1  | mg/kg | 1.3  | ND     |

Sample ID: SD-4-102018  
 Lab#: AD07161-009  
 Matrix: Sediment/Encore

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

**Volatile Organics (no search) 8260**

| Analyte                               | DF   | Units | RL     | Result |
|---------------------------------------|------|-------|--------|--------|
| 1,1,1-Trichloroethane                 | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1,2,2-Tetrachloroethane             | 1.72 | mg/kg | 0.0094 | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1,2-Trichloroethane                 | 1.72 | mg/kg | 0.0095 | ND     |
| 1,1-Dichloroethane                    | 1.72 | mg/kg | 0.0057 | ND     |
| 1,1-Dichloroethene                    | 1.72 | mg/kg | 0.0057 | ND     |
| 1,2,3-Trichlorobenzene                | 1.72 | mg/kg | 0.0071 | ND     |
| 1,2,4-Trichlorobenzene                | 1.72 | mg/kg | 0.0093 | ND     |
| 1,2-Dibromo-3-chloropropane           | 1.72 | mg/kg | 0.0094 | ND     |
| 1,2-Dibromoethane                     | 1.72 | mg/kg | 0.0057 | ND     |
| 1,2-Dichlorobenzene                   | 1.72 | mg/kg | 0.011  | ND     |
| 1,2-Dichloroethane                    | 1.72 | mg/kg | 0.0089 | ND     |
| 1,2-Dichloropropane                   | 1.72 | mg/kg | 0.0076 | ND     |
| 1,3-Dichlorobenzene                   | 1.72 | mg/kg | 0.0087 | ND     |
| 1,4-Dichlorobenzene                   | 1.72 | mg/kg | 0.0064 | ND     |
| 1,4-Dioxane                           | 1.72 | mg/kg | 0.44   | ND     |
| 2-Butanone                            | 1.72 | mg/kg | 0.011  | ND     |
| 2-Hexanone                            | 1.72 | mg/kg | 0.010  | ND     |
| 4-Methyl-2-pentanone                  | 1.72 | mg/kg | 0.011  | ND     |
| Acetone                               | 1.72 | mg/kg | 0.057  | ND     |
| Benzene                               | 1.72 | mg/kg | 0.0057 | ND     |
| Bromochloromethane                    | 1.72 | mg/kg | 0.0098 | ND     |
| Bromodichloromethane                  | 1.72 | mg/kg | 0.0069 | ND     |
| Bromoform                             | 1.72 | mg/kg | 0.010  | ND     |
| Bromomethane                          | 1.72 | mg/kg | 0.0075 | ND     |
| Carbon disulfide                      | 1.72 | mg/kg | 0.0057 | ND     |
| Carbon tetrachloride                  | 1.72 | mg/kg | 0.0057 | ND     |
| Chlorobenzene                         | 1.72 | mg/kg | 0.0057 | ND     |
| Chloroethane                          | 1.72 | mg/kg | 0.011  | ND     |
| Chloroform                            | 1.72 | mg/kg | 0.0094 | ND     |
| Chloromethane                         | 1.72 | mg/kg | 0.0057 | ND     |
| cis-1,2-Dichloroethene                | 1.72 | mg/kg | 0.0062 | ND     |
| cis-1,3-Dichloropropene               | 1.72 | mg/kg | 0.0057 | ND     |
| Cyclohexane                           | 1.72 | mg/kg | 0.0057 | ND     |
| Dibromochloromethane                  | 1.72 | mg/kg | 0.0069 | ND     |
| Dichlorodifluoromethane               | 1.72 | mg/kg | 0.0057 | ND     |
| Ethylbenzene                          | 1.72 | mg/kg | 0.0057 | ND     |
| Isopropylbenzene                      | 1.72 | mg/kg | 0.0057 | ND     |
| m&p-Xylenes                           | 1.72 | mg/kg | 0.0057 | ND     |
| Methyl Acetate                        | 1.72 | mg/kg | 0.0098 | ND     |
| Methylcyclohexane                     | 1.72 | mg/kg | 0.0057 | ND     |
| Methylene chloride                    | 1.72 | mg/kg | 0.010  | ND     |
| Methyl-t-butyl ether                  | 1.72 | mg/kg | 0.0057 | ND     |
| o-Xylene                              | 1.72 | mg/kg | 0.0057 | ND     |
| Styrene                               | 1.72 | mg/kg | 0.0057 | ND     |
| Tetrachloroethene                     | 1.72 | mg/kg | 0.0063 | ND     |
| Toluene                               | 1.72 | mg/kg | 0.0057 | ND     |
| trans-1,2-Dichloroethene              | 1.72 | mg/kg | 0.0058 | ND     |
| trans-1,3-Dichloropropene             | 1.72 | mg/kg | 0.0091 | ND     |
| Trichloroethene                       | 1.72 | mg/kg | 0.0067 | ND     |
| Trichlorofluoromethane                | 1.72 | mg/kg | 0.0057 | ND     |
| Vinyl chloride                        | 1.72 | mg/kg | 0.0057 | ND     |
| Xylenes (Total)                       | 1.72 | mg/kg | 0.0057 | ND     |

Sample ID: TB-3  
 Lab#: AD07161-010  
 Matrix: Aqueous

Collection Date: 10/17/2018  
 Receipt Date: 10/17/2018

Volatile Organics (no search) 624.1

| Analyte                               | DF | Units | RL   | Result |
|---------------------------------------|----|-------|------|--------|
| 1,1,1-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1,2,2-Tetrachloroethane             | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1  | ug/l  | 1.0  | ND     |
| 1,1,2-Trichloroethane                 | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethane                    | 1  | ug/l  | 1.0  | ND     |
| 1,1-Dichloroethene                    | 1  | ug/l  | 1.0  | ND     |
| 1,2,3-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2,4-Trichlorobenzene                | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromo-3-chloropropane           | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dibromoethane                     | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,2-Dichloroethane                    | 1  | ug/l  | 0.50 | ND     |
| 1,2-Dichloropropane                   | 1  | ug/l  | 1.0  | ND     |
| 1,3-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dichlorobenzene                   | 1  | ug/l  | 1.0  | ND     |
| 1,4-Dioxane                           | 1  | ug/l  | 50   | ND     |
| 2-Butanone                            | 1  | ug/l  | 1.0  | ND     |
| 2-Hexanone                            | 1  | ug/l  | 1.0  | ND     |
| 4-Methyl-2-pentanone                  | 1  | ug/l  | 1.0  | ND     |
| Acetone                               | 1  | ug/l  | 5.0  | ND     |
| Benzene                               | 1  | ug/l  | 0.50 | ND     |
| Bromochloromethane                    | 1  | ug/l  | 1.0  | ND     |
| Bromodichloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Bromoform                             | 1  | ug/l  | 1.0  | ND     |
| Bromomethane                          | 1  | ug/l  | 1.0  | ND     |
| Carbon disulfide                      | 1  | ug/l  | 1.0  | ND     |
| Carbon tetrachloride                  | 1  | ug/l  | 1.0  | ND     |
| Chlorobenzene                         | 1  | ug/l  | 1.0  | ND     |
| Chloroethane                          | 1  | ug/l  | 1.0  | ND     |
| Chloroform                            | 1  | ug/l  | 1.0  | ND     |
| Chloromethane                         | 1  | ug/l  | 1.0  | ND     |
| cis-1,2-Dichloroethene                | 1  | ug/l  | 1.0  | ND     |
| cis-1,3-Dichloropropene               | 1  | ug/l  | 1.0  | ND     |
| Cyclohexane                           | 1  | ug/l  | 1.0  | ND     |
| Dibromochloromethane                  | 1  | ug/l  | 1.0  | ND     |
| Dichlorodifluoromethane               | 1  | ug/l  | 1.0  | ND     |
| Ethylbenzene                          | 1  | ug/l  | 1.0  | ND     |
| Isopropylbenzene                      | 1  | ug/l  | 1.0  | ND     |
| m&p-Xylenes                           | 1  | ug/l  | 1.0  | ND     |
| Methyl Acetate                        | 1  | ug/l  | 1.0  | ND     |
| Methylcyclohexane                     | 1  | ug/l  | 1.0  | ND     |
| Methylene chloride                    | 1  | ug/l  | 1.0  | ND     |
| Methyl-t-butyl ether                  | 1  | ug/l  | 0.50 | ND     |
| o-Xylene                              | 1  | ug/l  | 1.0  | ND     |
| Styrene                               | 1  | ug/l  | 1.0  | ND     |
| Tetrachloroethene                     | 1  | ug/l  | 1.0  | ND     |
| Toluene                               | 1  | ug/l  | 1.0  | ND     |
| trans-1,2-Dichloroethene              | 1  | ug/l  | 1.0  | ND     |
| trans-1,3-Dichloropropene             | 1  | ug/l  | 1.0  | ND     |
| Trichloroethene                       | 1  | ug/l  | 1.0  | ND     |
| Trichlorofluoromethane                | 1  | ug/l  | 1.0  | ND     |
| Vinyl chloride                        | 1  | ug/l  | 1.0  | ND     |
| Xylenes (Total)                       | 1  | ug/l  | 1.0  | ND     |



Sample ID: PC-1-102018  
Lab#: AD07325-001  
Matrix: Aqueous

Collection Date: 10/23/2018  
Receipt Date: 10/24/2018

**Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

Sample ID: MW-11-102018

Lab#: AD07325-002

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/24/2018

**Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

Sample ID: GW-DUP1-102018

Lab#: AD07325-003

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/24/2018

**Sulfide-Total (SM4500-S2F-11)**

| Analyte         | DF | Units | RL | Result |
|-----------------|----|-------|----|--------|
| Sulfide (Total) | 1  | mg/l  | 2  | ND     |

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M138677.D

Analysis Date: 10/22/18 07:03

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #    | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3  | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4  | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4 | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5  | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1 | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3  | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6 | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1  | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2  | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5  | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4  | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2  | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9  | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0  | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |

Worksheet #: 485419

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M138721.D

Analysis Date: 10/23/18 08:03

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

| Cas #    | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3  | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4  | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4 | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5  | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1 | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3  | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6 | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1  | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2  | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5  | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4  | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2  | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9  | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0  | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |

Worksheet #: 485474

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

**Form1**

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M138721.D

Analysis Date: 10/23/18 08:03

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

| Units: ug/L |              |      |      |           |                      |      |      |
|-------------|--------------|------|------|-----------|----------------------|------|------|
| Cas #       | Compound     | RL   | Conc | Cas #     | Compound             | RL   | Conc |
| 71-43-2     | Benzene      | 0.50 | U    | 1634-04-4 | Methyl-t-butyl ether | 0.50 | U    |
| 100-41-4    | Ethylbenzene | 1.0  | U    | 95-47-6   | o-Xylene             | 1.0  | U    |
| 79601-23-1  | m&p-Xylenes  | 1.0  | U    | 108-88-3  | Toluene              | 1.0  | U    |

Worksheet #: 489339

**Total Target Concentration 0**

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 1M112523.D

Analysis Date: 10/24/18 09:59

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

| Cas #    | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3  | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4  | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4 | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5  | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1 | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3  | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6 | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1  | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2  | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5  | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4  | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2  | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9  | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0  | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139070.D

Analysis Date: 10/27/18 13:17

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #    | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3  | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4  | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4 | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5  | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1 | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3  | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6 | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1  | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2  | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5  | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4  | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2  | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9  | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0  | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.



## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139227.D

Analysis Date: 10/29/18 09:23

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #    | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3  | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4  | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4 | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5  | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1 | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3  | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6 | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1  | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2  | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5  | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4  | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2  | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9  | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0  | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |

Worksheet #: 485858

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and γ-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 1M113019.D

Analysis Date: 11/01/18 01:13

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Soil

Initial Vol: 5g

Final Vol: NA

Dilution: 1.00

Solids: 100

## Units: mg/Kg

| Cas #    | Compound                       | RL     | Conc | Cas #      | Compound                  | RL     | Conc |
|----------|--------------------------------|--------|------|------------|---------------------------|--------|------|
| 71-55-6  | 1,1,1-Trichloroethane          | 0.0010 | U    | 56-23-5    | Carbon Tetrachloride      | 0.0010 | U    |
| 79-34-5  | 1,1,2,2-Tetrachloroethane      | 0.0016 | U    | 108-90-7   | Chlorobenzene             | 0.0010 | U    |
| 76-13-1  | 1,1,2-Trichloro-1,2,2-trifluor | 0.0010 | U    | 75-00-3    | Chloroethane              | 0.0019 | U    |
| 79-00-5  | 1,1,2-Trichloroethane          | 0.0017 | U    | 67-66-3    | Chloroform                | 0.0016 | U    |
| 75-34-3  | 1,1-Dichloroethane             | 0.0010 | U    | 74-87-3    | Chloromethane             | 0.0010 | U    |
| 75-35-4  | 1,1-Dichloroethene             | 0.0010 | U    | 156-59-2   | cis-1,2-Dichloroethene    | 0.0011 | U    |
| 87-61-6  | 1,2,3-Trichlorobenzene         | 0.0012 | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 0.0010 | U    |
| 120-82-1 | 1,2,4-Trichlorobenzene         | 0.0016 | U    | 110-82-7   | Cyclohexane               | 0.0010 | U    |
| 96-12-8  | 1,2-Dibromo-3-Chloropropa      | 0.0016 | U    | 124-48-1   | Dibromochloromethane      | 0.0012 | U    |
| 106-93-4 | 1,2-Dibromoethane              | 0.0010 | U    | 75-71-8    | Dichlorodifluoromethane   | 0.0010 | U    |
| 95-50-1  | 1,2-Dichlorobenzene            | 0.0019 | U    | 100-41-4   | Ethylbenzene              | 0.0010 | U    |
| 107-06-2 | 1,2-Dichloroethane             | 0.0016 | U    | 98-82-8    | Isopropylbenzene          | 0.0010 | U    |
| 78-87-5  | 1,2-Dichloropropane            | 0.0013 | U    | 79601-23-1 | m&p-Xylenes               | 0.0010 | U    |
| 541-73-1 | 1,3-Dichlorobenzene            | 0.0015 | U    | 79-20-9    | Methyl Acetate            | 0.0017 | U    |
| 106-46-7 | 1,4-Dichlorobenzene            | 0.0011 | U    | 108-87-2   | Methylcyclohexane         | 0.0010 | U    |
| 123-91-1 | 1,4-Dioxane                    | 0.077  | U    | 75-09-2    | Methylene Chloride        | 0.0018 | U    |
| 78-93-3  | 2-Butanone                     | 0.0020 | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.0010 | U    |
| 591-78-6 | 2-Hexanone                     | 0.0018 | U    | 95-47-6    | o-Xylene                  | 0.0010 | U    |
| 108-10-1 | 4-Methyl-2-Pentanone           | 0.0020 | U    | 100-42-5   | Styrene                   | 0.0010 | U    |
| 67-64-1  | Acetone                        | 0.010  | U    | 127-18-4   | Tetrachloroethene         | 0.0011 | U    |
| 71-43-2  | Benzene                        | 0.0010 | U    | 108-88-3   | Toluene                   | 0.0010 | U    |
| 74-97-5  | Bromochloromethane             | 0.0017 | U    | 156-60-5   | trans-1,2-Dichloroethene  | 0.0010 | U    |
| 75-27-4  | Bromodichloromethane           | 0.0012 | U    | 10061-02-6 | trans-1,3-Dichloropropene | 0.0016 | U    |
| 75-25-2  | Bromoform                      | 0.0018 | U    | 79-01-6    | Trichloroethene           | 0.0012 | U    |
| 74-83-9  | Bromomethane                   | 0.0013 | U    | 75-69-4    | Trichlorofluoromethane    | 0.0010 | U    |
| 75-15-0  | Carbon Disulfide               | 0.0010 | U    | 75-01-4    | Vinyl Chloride            | 0.0010 | U    |

Worksheet #: 486412

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and γ-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07118-001

Client Id: LMW-2-102018 U

Data File: 3M138709.D

Analysis Date: 10/22/18 16:12

Date Rec/Extracted: 10/15/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

| Units: ug/L |                                |      |      |            |                           |      |      |
|-------------|--------------------------------|------|------|------------|---------------------------|------|------|
| Cas #       | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
| 71-55-6     | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5     | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3     | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4     | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6     | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1    | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8     | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4    | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1     | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2    | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5     | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1    | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7    | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1    | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3     | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6    | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1    | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1     | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2     | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5     | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4     | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2     | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9     | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0     | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7   | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485419

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07118-003

Client Id: PC-1-10 2018 U

Data File: 3M138710.D

Analysis Date: 10/22/18 16:29

Date Rec/Extracted: 10/15/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485419

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07118-005

Client Id: GW-DUP1-102018 U

Data File: 3M138711.D

Analysis Date: 10/22/18 16:46

Date Rec/Extracted: 10/15/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

| Units: ug/L |                                |      |      |            |                           |      |      |
|-------------|--------------------------------|------|------|------------|---------------------------|------|------|
| Cas #       | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
| 71-55-6     | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5     | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3     | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4     | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6     | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1    | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8     | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4    | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1     | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2    | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5     | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1    | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7    | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1    | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3     | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6    | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1    | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1     | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2     | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5     | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4     | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2     | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9     | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0     | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7   | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485419

**Total Target Concentration 0**

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

**Form1**

## ORGANICS VOLATILE REPORT

Sample Number: AD07118-007

Client Id: MW-11-102018 U

Data File: 3M138724.D

Analysis Date: 10/23/18 08:55

Date Rec/Extracted: 10/15/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

**Units: ug/L**

| Cas #      | Compound        | RL   | Conc | Cas #     | Compound             | RL   | Conc |
|------------|-----------------|------|------|-----------|----------------------|------|------|
| 71-43-2    | Benzene         | 0.50 | U    | 1634-04-4 | Methyl-t-butyl ether | 0.50 | U    |
| 100-41-4   | Ethylbenzene    | 1.0  | 17   | 95-47-6   | o-Xylene             | 1.0  | U    |
| 79601-23-1 | m&p-Xylenes     | 1.0  | 2.0  | 108-88-3  | Toluene              | 1.0  | U    |
| 1330-20-7  | Xylenes (Total) | 1.0  | 2.0  |           |                      |      |      |

Worksheet #: 489339

**Total Target Concentration 19**

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07118-009

Client Id: TB-1

Data File: 3M139246.D

Analysis Date: 10/29/18 14:50

Date Rec/Extracted: 10/15/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485858

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07137-001

Client Id: LMW-4-102018 U

Data File: 3M138712.D

Analysis Date: 10/22/18 17:04

Date Rec/Extracted: 10/16/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485475

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used  
Chlordane (Total) is sum of a-Chlordane and γ-Chlordane.



## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07137-003

Client Id: PC-2-102018 U

Data File: 3M138713.D

Analysis Date: 10/22/18 17:16

Date Rec/Extracted: 10/16/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485474

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used  
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07137-005

Client Id: PC-3-102018 U

Data File: 3M138722.D

Analysis Date: 10/23/18 08:21

Date Rec/Extracted: 10/16/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485474

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07137-007

Client Id: TB-2

Data File: 3M138740.D

Analysis Date: 10/23/18 13:32

Date Rec/Extracted: 10/16/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 485474

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-001

Client Id: SW-1-102018

Data File: 3M139091.D

Analysis Date: 10/27/18 19:17

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-002

Client Id: SD-1-102018

Data File: 1M113026.D

Analysis Date: 11/01/18 03:43

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Soil

Initial Vol: 5.09g

Final Vol: NA

Dilution: 0.982

Solids: 36

| Units: mg/Kg |                                |        |      |            |                           |        |      |
|--------------|--------------------------------|--------|------|------------|---------------------------|--------|------|
| Cas #        | Compound                       | RL     | Conc | Cas #      | Compound                  | RL     | Conc |
| 71-55-6      | 1,1,1-Trichloroethane          | 0.0027 | U    | 56-23-5    | Carbon Tetrachloride      | 0.0027 | U    |
| 79-34-5      | 1,1,2,2-Tetrachloroethane      | 0.0044 | U    | 108-90-7   | Chlorobenzene             | 0.0027 | U    |
| 76-13-1      | 1,1,2-Trichloro-1,2,2-trifluor | 0.0027 | U    | 75-00-3    | Chloroethane              | 0.0051 | U    |
| 79-00-5      | 1,1,2-Trichloroethane          | 0.0045 | U    | 67-66-3    | Chloroform                | 0.0044 | U    |
| 75-34-3      | 1,1-Dichloroethane             | 0.0027 | U    | 74-87-3    | Chloromethane             | 0.0027 | U    |
| 75-35-4      | 1,1-Dichloroethene             | 0.0027 | U    | 156-59-2   | cis-1,2-Dichloroethene    | 0.0029 | U    |
| 87-61-6      | 1,2,3-Trichlorobenzene         | 0.0034 | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 0.0027 | U    |
| 120-82-1     | 1,2,4-Trichlorobenzene         | 0.0044 | U    | 110-82-7   | Cyclohexane               | 0.0027 | U    |
| 96-12-8      | 1,2-Dibromo-3-Chloropropa      | 0.0045 | U    | 124-48-1   | Dibromochloromethane      | 0.0033 | U    |
| 106-93-4     | 1,2-Dibromoethane              | 0.0027 | U    | 75-71-8    | Dichlorodifluoromethane   | 0.0027 | U    |
| 95-50-1      | 1,2-Dichlorobenzene            | 0.0053 | U    | 100-41-4   | Ethylbenzene              | 0.0027 | U    |
| 107-06-2     | 1,2-Dichloroethane             | 0.0042 | U    | 98-82-8    | Isopropylbenzene          | 0.0027 | U    |
| 78-87-5      | 1,2-Dichloropropane            | 0.0036 | U    | 79601-23-1 | m&p-Xylenes               | 0.0027 | U    |
| 541-73-1     | 1,3-Dichlorobenzene            | 0.0041 | U    | 79-20-9    | Methyl Acetate            | 0.0046 | U    |
| 106-46-7     | 1,4-Dichlorobenzene            | 0.0030 | U    | 108-87-2   | Methylcyclohexane         | 0.0027 | U    |
| 123-91-1     | 1,4-Dioxane                    | 0.21   | U    | 75-09-2    | Methylene Chloride        | 0.0049 | U    |
| 78-93-3      | 2-Butanone                     | 0.0054 | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.0027 | U    |
| 591-78-6     | 2-Hexanone                     | 0.0049 | U    | 95-47-6    | o-Xylene                  | 0.0027 | U    |
| 108-10-1     | 4-Methyl-2-Pentanone           | 0.0054 | U    | 100-42-5   | Styrene                   | 0.0027 | U    |
| 67-64-1      | Acetone                        | 0.027  | U    | 127-18-4   | Tetrachloroethene         | 0.0030 | U    |
| 71-43-2      | Benzene                        | 0.0027 | U    | 108-88-3   | Toluene                   | 0.0027 | U    |
| 74-97-5      | Bromochloromethane             | 0.0047 | U    | 156-60-5   | trans-1,2-Dichloroethene  | 0.0028 | U    |
| 75-27-4      | Bromodichloromethane           | 0.0033 | U    | 10061-02-6 | trans-1,3-Dichloropropene | 0.0043 | U    |
| 75-25-2      | Bromoform                      | 0.0048 | U    | 79-01-6    | Trichloroethene           | 0.0032 | U    |
| 74-83-9      | Bromomethane                   | 0.0035 | U    | 75-69-4    | Trichlorofluoromethane    | 0.0027 | U    |
| 75-15-0      | Carbon Disulfide               | 0.0027 | U    | 75-01-4    | Vinyl Chloride            | 0.0027 | U    |
| 1330-20-7    | Xylenes (Total)                | 0.0027 | U    |            |                           |        |      |

Worksheet #: 486412

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-003

Client Id: SW-2-102018

Data File: 3M139092.D

Analysis Date: 10/27/18 19:35

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-004

Client Id: SD-2-102018

Data File: 1M113027.D

Analysis Date: 11/01/18 04:05

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Soil

Initial Vol: 6.11g

Final Vol: NA

Dilution: 0.818

Solids: 16

| Units: mg/Kg |                                |        |      |            |                           |        |      |
|--------------|--------------------------------|--------|------|------------|---------------------------|--------|------|
| Cas #        | Compound                       | RL     | Conc | Cas #      | Compound                  | RL     | Conc |
| 71-55-6      | 1,1,1-Trichloroethane          | 0.0051 | U    | 56-23-5    | Carbon Tetrachloride      | 0.0051 | U    |
| 79-34-5      | 1,1,2,2-Tetrachloroethane      | 0.0083 | U    | 108-90-7   | Chlorobenzene             | 0.0051 | U    |
| 76-13-1      | 1,1,2-Trichloro-1,2,2-trifluor | 0.0051 | U    | 75-00-3    | Chloroethane              | 0.0095 | U    |
| 79-00-5      | 1,1,2-Trichloroethane          | 0.0085 | U    | 67-66-3    | Chloroform                | 0.0083 | U    |
| 75-34-3      | 1,1-Dichloroethane             | 0.0051 | U    | 74-87-3    | Chloromethane             | 0.0051 | U    |
| 75-35-4      | 1,1-Dichloroethene             | 0.0051 | U    | 156-59-2   | cis-1,2-Dichloroethene    | 0.0055 | U    |
| 87-61-6      | 1,2,3-Trichlorobenzene         | 0.0063 | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 0.0051 | U    |
| 120-82-1     | 1,2,4-Trichlorobenzene         | 0.0082 | U    | 110-82-7   | Cyclohexane               | 0.0051 | U    |
| 96-12-8      | 1,2-Dibromo-3-Chloropropa      | 0.0084 | U    | 124-48-1   | Dibromochloromethane      | 0.0061 | U    |
| 106-93-4     | 1,2-Dibromoethane              | 0.0051 | U    | 75-71-8    | Dichlorodifluoromethane   | 0.0051 | U    |
| 95-50-1      | 1,2-Dichlorobenzene            | 0.0099 | U    | 100-41-4   | Ethylbenzene              | 0.0051 | U    |
| 107-06-2     | 1,2-Dichloroethane             | 0.0079 | U    | 98-82-8    | Isopropylbenzene          | 0.0051 | U    |
| 78-87-5      | 1,2-Dichloropropane            | 0.0068 | U    | 79601-23-1 | m&p-Xylenes               | 0.0051 | U    |
| 541-73-1     | 1,3-Dichlorobenzene            | 0.0077 | U    | 79-20-9    | Methyl Acetate            | 0.0087 | U    |
| 106-46-7     | 1,4-Dichlorobenzene            | 0.0057 | U    | 108-87-2   | Methylcyclohexane         | 0.0051 | U    |
| 123-91-1     | 1,4-Dioxane                    | 0.39   | U    | 75-09-2    | Methylene Chloride        | 0.0092 | U    |
| 78-93-3      | 2-Butanone                     | 0.010  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.0051 | U    |
| 591-78-6     | 2-Hexanone                     | 0.0093 | U    | 95-47-6    | o-Xylene                  | 0.0051 | U    |
| 108-10-1     | 4-Methyl-2-Pentanone           | 0.010  | U    | 100-42-5   | Styrene                   | 0.0051 | U    |
| 67-64-1      | Acetone                        | 0.051  | U    | 127-18-4   | Tetrachloroethene         | 0.0056 | U    |
| 71-43-2      | Benzene                        | 0.0051 | U    | 108-88-3   | Toluene                   | 0.0051 | U    |
| 74-97-5      | Bromochloromethane             | 0.0087 | U    | 156-60-5   | trans-1,2-Dichloroethene  | 0.0052 | U    |
| 75-27-4      | Bromodichloromethane           | 0.0061 | U    | 10061-02-6 | trans-1,3-Dichloropropene | 0.0081 | U    |
| 75-25-2      | Bromoform                      | 0.0090 | U    | 79-01-6    | Trichloroethene           | 0.0060 | U    |
| 74-83-9      | Bromomethane                   | 0.0066 | U    | 75-69-4    | Trichlorofluoromethane    | 0.0051 | U    |
| 75-15-0      | Carbon Disulfide               | 0.0051 | U    | 75-01-4    | Vinyl Chloride            | 0.0051 | U    |
| 1330-20-7    | Xylenes (Total)                | 0.0051 | U    |            |                           |        |      |

Worksheet #: 486412

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-005

Client Id: SW-3-102018

Data File: 3M139093.D

Analysis Date: 10/27/18 19:52

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.



## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-006

Client Id: SD-3-102018

Data File: 1M113028.D

Analysis Date: 11/01/18 04:26

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Soil

Initial Vol: 6.05g

Final Vol: NA

Dilution: 0.826

Solids: 55

## Units: mg/Kg

| Cas #     | Compound                       | RL     | Conc | Cas #      | Compound                  | RL     | Conc |
|-----------|--------------------------------|--------|------|------------|---------------------------|--------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 0.0015 | U    | 56-23-5    | Carbon Tetrachloride      | 0.0015 | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 0.0024 | U    | 108-90-7   | Chlorobenzene             | 0.0015 | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 0.0015 | U    | 75-00-3    | Chloroethane              | 0.0028 | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 0.0025 | U    | 67-66-3    | Chloroform                | 0.0024 | U    |
| 75-34-3   | 1,1-Dichloroethane             | 0.0015 | U    | 74-87-3    | Chloromethane             | 0.0015 | U    |
| 75-35-4   | 1,1-Dichloroethene             | 0.0015 | U    | 156-59-2   | cis-1,2-Dichloroethene    | 0.0016 | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 0.0019 | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 0.0015 | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 0.0024 | U    | 110-82-7   | Cyclohexane               | 0.0015 | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 0.0025 | U    | 124-48-1   | Dibromochloromethane      | 0.0018 | U    |
| 106-93-4  | 1,2-Dibromoethane              | 0.0015 | U    | 75-71-8    | Dichlorodifluoromethane   | 0.0015 | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 0.0029 | U    | 100-41-4   | Ethylbenzene              | 0.0015 | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.0023 | U    | 98-82-8    | Isopropylbenzene          | 0.0015 | U    |
| 78-87-5   | 1,2-Dichloropropane            | 0.0020 | U    | 79601-23-1 | m&p-Xylenes               | 0.0015 | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 0.0023 | U    | 79-20-9    | Methyl Acetate            | 0.0026 | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 0.0017 | U    | 108-87-2   | Methylcyclohexane         | 0.0015 | U    |
| 123-91-1  | 1,4-Dioxane                    | 0.12   | U    | 75-09-2    | Methylene Chloride        | 0.0027 | U    |
| 78-93-3   | 2-Butanone                     | 0.0030 | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.0015 | U    |
| 591-78-6  | 2-Hexanone                     | 0.0027 | U    | 95-47-6    | o-Xylene                  | 0.0015 | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 0.0030 | U    | 100-42-5   | Styrene                   | 0.0015 | U    |
| 67-64-1   | Acetone                        | 0.015  | U    | 127-18-4   | Tetrachloroethene         | 0.0016 | U    |
| 71-43-2   | Benzene                        | 0.0015 | U    | 108-88-3   | Toluene                   | 0.0015 | U    |
| 74-97-5   | Bromochloromethane             | 0.0026 | U    | 156-60-5   | trans-1,2-Dichloroethene  | 0.0015 | U    |
| 75-27-4   | Bromodichloromethane           | 0.0018 | U    | 10061-02-6 | trans-1,3-Dichloropropene | 0.0024 | U    |
| 75-25-2   | Bromoform                      | 0.0026 | U    | 79-01-6    | Trichloroethene           | 0.0018 | U    |
| 74-83-9   | Bromomethane                   | 0.0020 | U    | 75-69-4    | Trichlorofluoromethane    | 0.0015 | U    |
| 75-15-0   | Carbon Disulfide               | 0.0015 | U    | 75-01-4    | Vinyl Chloride            | 0.0015 | U    |
| 1330-20-7 | Xylenes (Total)                | 0.0015 | U    |            |                           |        |      |

Worksheet #: 486412

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-007

Client Id: SW-DUP1-102018

Data File: 3M139094.D

Analysis Date: 10/27/18 20:09

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) Is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-008

Client Id: SW-4-102018

Data File: 3M139095.D

Analysis Date: 10/27/18 20:26

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff &gt; 40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of  $\alpha$ -Chlordane and  $\gamma$ -Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-009

Client Id: SD-4-102018

Data File: 1M113029.D

Analysis Date: 11/01/18 04:48

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Soil

Initial Vol: 2.9g

Final Vol: NA

Dilution: 1.72

Solids: 30

| Units: mg/Kg |                                |        |      |            |                           |        |      |
|--------------|--------------------------------|--------|------|------------|---------------------------|--------|------|
| Cas #        | Compound                       | RL     | Conc | Cas #      | Compound                  | RL     | Conc |
| 71-55-6      | 1,1,1-Trichloroethane          | 0.0057 | U    | 56-23-5    | Carbon Tetrachloride      | 0.0057 | U    |
| 79-34-5      | 1,1,2,2-Tetrachloroethane      | 0.0094 | U    | 108-90-7   | Chlorobenzene             | 0.0057 | U    |
| 76-13-1      | 1,1,2-Trichloro-1,2,2-trifluor | 0.0057 | U    | 75-00-3    | Chloroethane              | 0.011  | U    |
| 79-00-5      | 1,1,2-Trichloroethane          | 0.0095 | U    | 67-66-3    | Chloroform                | 0.0094 | U    |
| 75-34-3      | 1,1-Dichloroethane             | 0.0057 | U    | 74-87-3    | Chloromethane             | 0.0057 | U    |
| 75-35-4      | 1,1-Dichloroethene             | 0.0057 | U    | 156-59-2   | cis-1,2-Dichloroethene    | 0.0062 | U    |
| 87-61-6      | 1,2,3-Trichlorobenzene         | 0.0071 | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 0.0057 | U    |
| 120-82-1     | 1,2,4-Trichlorobenzene         | 0.0093 | U    | 110-82-7   | Cyclohexane               | 0.0057 | U    |
| 96-12-8      | 1,2-Dibromo-3-Chloropropa      | 0.0094 | U    | 124-48-1   | Dibromochloromethane      | 0.0069 | U    |
| 106-93-4     | 1,2-Dibromoethane              | 0.0057 | U    | 75-71-8    | Dichlorodifluoromethane   | 0.0057 | U    |
| 95-50-1      | 1,2-Dichlorobenzene            | 0.011  | U    | 100-41-4   | Ethylbenzene              | 0.0057 | U    |
| 107-06-2     | 1,2-Dichloroethane             | 0.0089 | U    | 98-82-8    | Isopropylbenzene          | 0.0057 | U    |
| 78-87-5      | 1,2-Dichloropropane            | 0.0076 | U    | 79601-23-1 | m&p-Xylenes               | 0.0057 | U    |
| 541-73-1     | 1,3-Dichlorobenzene            | 0.0087 | U    | 79-20-9    | Methyl Acetate            | 0.0098 | U    |
| 106-46-7     | 1,4-Dichlorobenzene            | 0.0064 | U    | 108-87-2   | Methylcyclohexane         | 0.0057 | U    |
| 123-91-1     | 1,4-Dioxane                    | 0.44   | U    | 75-09-2    | Methylene Chloride        | 0.010  | U    |
| 78-93-3      | 2-Butanone                     | 0.011  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.0057 | U    |
| 591-78-6     | 2-Hexanone                     | 0.010  | U    | 95-47-6    | o-Xylene                  | 0.0057 | U    |
| 108-10-1     | 4-Methyl-2-Pentanone           | 0.011  | U    | 100-42-5   | Styrene                   | 0.0057 | U    |
| 67-64-1      | Acetone                        | 0.057  | U    | 127-18-4   | Tetrachloroethene         | 0.0063 | U    |
| 71-43-2      | Benzene                        | 0.0057 | U    | 108-88-3   | Toluene                   | 0.0057 | U    |
| 74-97-5      | Bromochloromethane             | 0.0098 | U    | 156-60-5   | trans-1,2-Dichloroethene  | 0.0058 | U    |
| 75-27-4      | Bromodichloromethane           | 0.0069 | U    | 10061-02-6 | trans-1,3-Dichloropropene | 0.0091 | U    |
| 75-25-2      | Bromoform                      | 0.010  | U    | 79-01-6    | Trichloroethene           | 0.0067 | U    |
| 74-83-9      | Bromomethane                   | 0.0075 | U    | 75-69-4    | Trichlorofluoromethane    | 0.0057 | U    |
| 75-15-0      | Carbon Disulfide               | 0.0057 | U    | 75-01-4    | Vinyl Chloride            | 0.0057 | U    |
| 1330-20-7    | Xylenes (Total)                | 0.0057 | U    |            |                           |        |      |

Worksheet #: 486412

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## Form1

## ORGANICS VOLATILE REPORT

Sample Number: AD07161-010

Client Id: TB-3

Data File: 1M112535.D

Analysis Date: 10/24/18 14:16

Date Rec/Extracted: 10/17/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

## Units: ug/L

| Cas #     | Compound                       | RL   | Conc | Cas #      | Compound                  | RL   | Conc |
|-----------|--------------------------------|------|------|------------|---------------------------|------|------|
| 71-55-6   | 1,1,1-Trichloroethane          | 1.0  | U    | 56-23-5    | Carbon Tetrachloride      | 1.0  | U    |
| 79-34-5   | 1,1,2,2-Tetrachloroethane      | 1.0  | U    | 108-90-7   | Chlorobenzene             | 1.0  | U    |
| 76-13-1   | 1,1,2-Trichloro-1,2,2-trifluor | 1.0  | U    | 75-00-3    | Chloroethane              | 1.0  | U    |
| 79-00-5   | 1,1,2-Trichloroethane          | 1.0  | U    | 67-66-3    | Chloroform                | 1.0  | U    |
| 75-34-3   | 1,1-Dichloroethane             | 1.0  | U    | 74-87-3    | Chloromethane             | 1.0  | U    |
| 75-35-4   | 1,1-Dichloroethene             | 1.0  | U    | 156-59-2   | cis-1,2-Dichloroethene    | 1.0  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene         | 1.0  | U    | 10061-01-5 | cis-1,3-Dichloropropene   | 1.0  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene         | 1.0  | U    | 110-82-7   | Cyclohexane               | 1.0  | U    |
| 96-12-8   | 1,2-Dibromo-3-Chloropropa      | 1.0  | U    | 124-48-1   | Dibromochloromethane      | 1.0  | U    |
| 106-93-4  | 1,2-Dibromoethane              | 1.0  | U    | 75-71-8    | Dichlorodifluoromethane   | 1.0  | U    |
| 95-50-1   | 1,2-Dichlorobenzene            | 1.0  | U    | 100-41-4   | Ethylbenzene              | 1.0  | U    |
| 107-06-2  | 1,2-Dichloroethane             | 0.50 | U    | 98-82-8    | Isopropylbenzene          | 1.0  | U    |
| 78-87-5   | 1,2-Dichloropropane            | 1.0  | U    | 79601-23-1 | m&p-Xylenes               | 1.0  | U    |
| 541-73-1  | 1,3-Dichlorobenzene            | 1.0  | U    | 79-20-9    | Methyl Acetate            | 1.0  | U    |
| 106-46-7  | 1,4-Dichlorobenzene            | 1.0  | U    | 108-87-2   | Methylcyclohexane         | 1.0  | U    |
| 123-91-1  | 1,4-Dioxane                    | 50   | U    | 75-09-2    | Methylene Chloride        | 1.0  | U    |
| 78-93-3   | 2-Butanone                     | 1.0  | U    | 1634-04-4  | Methyl-t-butyl ether      | 0.50 | U    |
| 591-78-6  | 2-Hexanone                     | 1.0  | U    | 95-47-6    | o-Xylene                  | 1.0  | U    |
| 108-10-1  | 4-Methyl-2-Pentanone           | 1.0  | U    | 100-42-5   | Styrene                   | 1.0  | U    |
| 67-64-1   | Acetone                        | 5.0  | U    | 127-18-4   | Tetrachloroethene         | 1.0  | U    |
| 71-43-2   | Benzene                        | 0.50 | U    | 108-88-3   | Toluene                   | 1.0  | U    |
| 74-97-5   | Bromochloromethane             | 1.0  | U    | 156-60-5   | trans-1,2-Dichloroethene  | 1.0  | U    |
| 75-27-4   | Bromodichloromethane           | 1.0  | U    | 10061-02-6 | trans-1,3-Dichloropropene | 1.0  | U    |
| 75-25-2   | Bromoform                      | 1.0  | U    | 79-01-6    | Trichloroethene           | 1.0  | U    |
| 74-83-9   | Bromomethane                   | 1.0  | U    | 75-69-4    | Trichlorofluoromethane    | 1.0  | U    |
| 75-15-0   | Carbon Disulfide               | 1.0  | U    | 75-01-4    | Vinyl Chloride            | 1.0  | U    |
| 1330-20-7 | Xylenes (Total)                | 1.0  | U    |            |                           |      |      |

Worksheet #: 489216

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff&gt;40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

## FORM2

## Surrogate Recovery

Method: EPA 8260C

| Dfile      | Sample#          | Matrix | Date/Time      | Surr<br>Dil | Dilute<br>Out<br>Flag | Column1<br>S1<br>Recov | Column1<br>S2<br>Recov | Column1<br>S3<br>Recov | Column1<br>S4<br>Recov | Column0<br>S5<br>Recov | Column0<br>S6<br>Recov |
|------------|------------------|--------|----------------|-------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 1M113019.D | DAILY BLANK      | S      | 11/01/18 01:13 | 1           |                       | 109                    | 110                    | 82                     | 108                    |                        |                        |
| 1M113026.D | AD07161-002      | S      | 11/01/18 03:43 | 1           |                       | 90                     | 98                     | 85                     | 107                    |                        |                        |
| 1M113027.D | AD07161-004      | S      | 11/01/18 04:05 | 1           |                       | 101                    | 95                     | 94                     | 110                    |                        |                        |
| 1M113028.D | AD07161-006      | S      | 11/01/18 04:26 | 1           |                       | 112                    | 112                    | 79                     | 109                    |                        |                        |
| 1M113029.D | AD07161-009      | S      | 11/01/18 04:48 | 1           |                       | 108                    | 106                    | 87                     | 82                     |                        |                        |
| 1M113022.D | MBS73545         | S      | 11/01/18 02:18 | 1           |                       | 99                     | 99                     | 65*                    | 93                     |                        |                        |
| 1M113043.D | AD07338-001(MS)  | S      | 11/01/18 09:48 | 1           |                       | 89                     | 109                    | 87                     | 118                    |                        |                        |
| 1M113045.D | AD07338-001(MSD) | S      | 11/01/18 10:30 | 1           |                       | 96                     | 96                     | 87                     | 90                     |                        |                        |
| 1M113048.D | AD07338-001      | S      | 11/01/18 11:35 | 1           |                       | 97                     | 116                    | 92                     | 101                    |                        |                        |

Flags: SD=Surrogate diluted out

\*=Surrogate out

Method: EPA 8260C

## Soil Laboratory Limits

| Compound                 | Spike<br>Amt | Limits |
|--------------------------|--------------|--------|
| S1=Dibromofluoromethane  | 30           | 63-140 |
| S2=1,2-Dichloroethane-d4 | 30           | 63-143 |
| S3=Toluene-d8            | 30           | 68-122 |
| S4=Bromofluorobenzene    | 30           | 64-129 |

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73519**

8101509 0116

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M139233.D              |     | MBS73519        |             | 10/29/2018 11:06:00 A |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 33.0148         | 0           | 20                    | 165      | 0           | 300         |
| Dichlorodifluoromethane               | 1   | 25.5881         | 0           | 20                    | 128      | 1           | 300         |
| Chloromethane                         | 1   | 27.6977         | 0           | 20                    | 138      | 1           | 205         |
| Bromomethane                          | 1   | 22.039          | 0           | 20                    | 110      | 15          | 185         |
| Vinyl Chloride                        | 1   | 19.0292         | 0           | 20                    | 95       | 5           | 195         |
| Chloroethane                          | 1   | 23.6058         | 0           | 20                    | 118      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 18.0751         | 0           | 20                    | 90       | 50          | 150         |
| Ethyl ether                           | 1   | 17.7488         | 0           | 20                    | 89       | 10          | 160         |
| Furan                                 | 1   | 17.8747         | 0           | 20                    | 89       | 20          | 200         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 18.8828         | 0           | 20                    | 94       | 20          | 200         |
| Methylene Chloride                    | 1   | 22.6976         | 0           | 20                    | 113      | 60          | 140         |
| Acrolein                              | 1   | 84.7701         | 0           | 100                   | 85       | 60          | 140         |
| Acrylonitrile                         | 1   | 20.7434         | 0           | 20                    | 104      | 60          | 140         |
| Iodomethane                           | 1   | 15.7847         | 0           | 20                    | 79       | 1           | 200         |
| Acetone                               | 1   | 105.657         | 0           | 100                   | 106      | 10          | 200         |
| Carbon Disulfide                      | 1   | 18.0536         | 0           | 20                    | 90       | 10          | 160         |
| t-Butyl Alcohol                       | 1   | 84.9266         | 0           | 100                   | 85       | 1           | 200         |
| n-Hexane                              | 1   | 29.325          | 0           | 20                    | 147      | 0           | 300         |
| Di-isopropyl-ether                    | 1   | 23.1333         | 0           | 20                    | 116      | 20          | 200         |
| 1,1-Dichloroethene                    | 1   | 19.3273         | 0           | 20                    | 97       | 50          | 150         |
| Methyl Acetate                        | 1   | 19.3743         | 0           | 20                    | 97       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 18.9828         | 0           | 20                    | 95       | 20          | 200         |
| 1,1-Dichloroethane                    | 1   | 19.7245         | 0           | 20                    | 99       | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 16.9502         | 0           | 20                    | 85       | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 21.6079         | 0           | 20                    | 108      | 20          | 160         |
| cis-1,2-Dichloroethene                | 1   | 20.6934         | 0           | 20                    | 103      | 30          | 160         |
| Bromochloromethane                    | 1   | 22.3681         | 0           | 20                    | 112      | 30          | 160         |
| 2,2-Dichloropropane                   | 1   | 22.0845         | 0           | 20                    | 110      | 10          | 200         |
| Ethyl acetate                         | 1   | 20.808          | 0           | 20                    | 104      | 10          | 200         |
| 1,4-Dioxane                           | 1   | 901.4514        | 0           | 1000                  | 90       | 0           | 250         |
| 1,1-Dichloropropene                   | 1   | 21.2336         | 0           | 20                    | 106      | 40          | 150         |
| Chloroform                            | 1   | 18.0866         | 0           | 20                    | 90       | 70          | 135         |
| Cyclohexane                           | 1   | 116.3247        | 0           | 20                    | 582 *    | 20          | 200         |
| 1,2-Dichloroethane                    | 1   | 22.041          | 0           | 20                    | 110      | 70          | 130         |
| 2-Butanone                            | 1   | 24.2256         | 0           | 20                    | 121      | 0           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 16.6562         | 0           | 20                    | 83       | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 17.0884         | 0           | 20                    | 85       | 70          | 130         |
| Vinyl Acetate                         | 1   | 21.4041         | 0           | 20                    | 107      | 20          | 200         |
| Bromodichloromethane                  | 1   | 18.8436         | 0           | 20                    | 94       | 65          | 135         |
| Methylcyclohexane                     | 1   | 28.4928         | 0           | 20                    | 142      | 10          | 200         |
| Dibromomethane                        | 1   | 19.1978         | 0           | 20                    | 96       | 20          | 160         |
| 1,2-Dichloropropane                   | 1   | 22.1443         | 0           | 20                    | 111      | 35          | 135         |
| Trichloroethene                       | 1   | 17.2095         | 0           | 20                    | 86       | 65          | 135         |
| Benzene                               | 1   | 22.8892         | 0           | 20                    | 114      | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 19.5938         | 0           | 20                    | 98       | 20          | 150         |
| Iso-propylacetate                     | 1   | 25.6906         | 0           | 20                    | 128      | 10          | 200         |
| Methyl methacrylate                   | 1   | 26.659          | 0           | 20                    | 133      | 10          | 200         |
| Dibromochloromethane                  | 1   | 16.7435         | 0           | 20                    | 84       | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 25.1888         | 0           | 20                    | 126      | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 20.0696         | 0           | 20                    | 100      | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 18.4804         | 0           | 20                    | 92       | 50          | 150         |
| Ethyl methacrylate                    | 1   | 23.3186         | 0           | 20                    | 117      | 10          | 200         |
| 1,1,2-Trichloroethane                 | 1   | 23.22           | 0           | 20                    | 116      | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 17.3738         | 0           | 20                    | 87       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 23.0564         | 0           | 20                    | 115      | 20          | 200         |
| 4-Methyl-2-Pentanone                  | 1   | 32.6288         | 0           | 20                    | 163      | 10          | 200         |
| 2-Hexanone                            | 1   | 29.7317         | 0           | 20                    | 149      | 10          | 200         |
| Tetrachloroethene                     | 1   | 22.4335         | 0           | 20                    | 112      | 70          | 130         |
| Toluene                               | 1   | 34.5038         | 0           | 20                    | 173 *    | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 21.0425         | 0           | 20                    | 105      | 40          | 160         |
| Chlorobenzene                         | 1   | 17.6718         | 0           | 20                    | 88       | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73519

|                             |   |          |   |     |      |    |     |
|-----------------------------|---|----------|---|-----|------|----|-----|
| n-Butyl acrylate            | 1 | 26.5257  | 0 | 20  | 133  | 10 | 200 |
| n-Amyl acetate              | 1 | 28.1864  | 0 | 20  | 141  | 20 | 150 |
| Bromoform                   | 1 | 17.2121  | 0 | 20  | 86   | 70 | 130 |
| Ethylbenzene                | 1 | 29.1574  | 0 | 20  | 146* | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.9019  | 0 | 20  | 115  | 60 | 140 |
| Styrene                     | 1 | 23.4459  | 0 | 20  | 117  | 20 | 160 |
| m&p-Xylenes                 | 1 | 76.8077  | 0 | 40  | 192  | 20 | 200 |
| o-Xylene                    | 1 | 34.3057  | 0 | 20  | 172  | 20 | 200 |
| trans-1,4-Dichloro-2-butene | 1 | 21.0367  | 0 | 20  | 105  | 10 | 200 |
| 1,3-Dichlorobenzene         | 1 | 19.2558  | 0 | 20  | 96   | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 17.4636  | 0 | 20  | 87   | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 17.965   | 0 | 20  | 90   | 65 | 135 |
| Isopropylbenzene            | 1 | 24.7811  | 0 | 20  | 124  | 20 | 160 |
| Cyclohexanone               | 1 | 172.1431 | 0 | 100 | 172  | 0  | 300 |
| Camphene                    | 1 | 19.9976  | 0 | 20  | 100  | 10 | 200 |
| 1,2,3-Trichloropropane      | 1 | 22.1199  | 0 | 20  | 111  | 30 | 150 |
| 2-Chlorotoluene             | 1 | 24.6279  | 0 | 20  | 123  | 30 | 160 |
| p-Ethyltoluene              | 1 | 46.831   | 0 | 20  | 234  | 10 | 250 |
| 4-Chlorotoluene             | 1 | 20.8057  | 0 | 20  | 104  | 30 | 150 |
| n-Propylbenzene             | 1 | 28.6275  | 0 | 20  | 143  | 20 | 160 |
| Bromobenzene                | 1 | 21.3593  | 0 | 20  | 107  | 30 | 150 |
| 1,3,5-Trimethylbenzene      | 1 | 39.086   | 0 | 20  | 195  | 30 | 200 |
| Butyl methacrylate          | 1 | 28.6141  | 0 | 20  | 143  | 10 | 200 |
| t-Butylbenzene              | 1 | 28.1974  | 0 | 20  | 141  | 20 | 160 |
| 1,2,4-Trimethylbenzene      | 1 | 61.9418  | 0 | 20  | 310* | 30 | 200 |
| sec-Butylbenzene            | 1 | 24.6986  | 0 | 20  | 123  | 20 | 160 |
| 4-Isopropyltoluene          | 1 | 24.7156  | 0 | 20  | 124  | 30 | 150 |
| n-Butylbenzene              | 1 | 32.9559  | 0 | 20  | 165  | 20 | 200 |
| p-Diethylbenzene            | 1 | 64.5285  | 0 | 20  | 323* | 10 | 250 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 35.9983  | 0 | 20  | 180  | 10 | 200 |
| 1,2-Dibromo-3-Chloropropane | 1 | 18.6766  | 0 | 20  | 93   | 0  | 200 |
| Camphor                     | 1 | 109.6548 | 0 | 200 | 55   | 0  | 200 |
| Hexachlorobutadiene         | 1 | 16.1399  | 0 | 20  | 81   | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 18.9818  | 0 | 20  | 95   | 5  | 200 |
| 1,2,3-Trichlorobenzene      | 1 | 18.2076  | 0 | 20  | 91   | 0  | 200 |
| Naphthalene                 | 1 | 42.2336  | 0 | 20  | 211  | 0  | 250 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: MBS73432

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138681.D              |     | MBS73432        |             | 10/22/2018 8:11:00 AM |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 0               | 0           | 20                    | 0        | 0           | 300         |
| Dichlorodifluoromethane               | 1   | 36.9189         | 0           | 20                    | 185      | 1           | 300         |
| Chloromethane                         | 1   | 30.9548         | 0           | 20                    | 155      | 1           | 205         |
| Bromomethane                          | 1   | 26.3488         | 0           | 20                    | 132      | 15          | 185         |
| Vinyl Chloride                        | 1   | 22.0482         | 0           | 20                    | 110      | 5           | 195         |
| Chloroethane                          | 1   | 22.5816         | 0           | 20                    | 113      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 18.6777         | 0           | 20                    | 93       | 50          | 150         |
| Ethyl ether                           | 1   | 17.2511         | 0           | 20                    | 86       | 10          | 160         |
| Furan                                 | 1   | 16.4338         | 0           | 20                    | 82       | 20          | 200         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 23.9656         | 0           | 20                    | 120      | 20          | 200         |
| Methylene Chloride                    | 1   | 22.5274         | 0           | 20                    | 113      | 60          | 140         |
| Acrolein                              | 1   | 82.8261         | 0           | 100                   | 83       | 60          | 140         |
| Acrylonitrile                         | 1   | 18.3742         | 0           | 20                    | 92       | 60          | 140         |
| Iodomethane                           | 1   | 20.4485         | 0           | 20                    | 102      | 1           | 200         |
| Acetone                               | 1   | 90.2276         | 0           | 100                   | 90       | 10          | 200         |
| Carbon Disulfide                      | 1   | 19.2684         | 0           | 20                    | 96       | 10          | 160         |
| t-Butyl Alcohol                       | 1   | 67.2232         | 0           | 100                   | 67       | 1           | 200         |
| n-Hexane                              | 1   | 22.687          | 0           | 20                    | 113      | 0           | 300         |
| Di-isopropyl-ether                    | 1   | 19.715          | 0           | 20                    | 99       | 20          | 200         |
| 1,1-Dichloroethene                    | 1   | 20.1395         | 0           | 20                    | 101      | 50          | 150         |
| Methyl Acetate                        | 1   | 18.1582         | 0           | 20                    | 91       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 18.3222         | 0           | 20                    | 92       | 20          | 200         |
| 1,1-Dichloroethane                    | 1   | 18.3584         | 0           | 20                    | 92       | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 19.5167         | 0           | 20                    | 98       | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 18.5598         | 0           | 20                    | 93       | 20          | 160         |
| cis-1,2-Dichloroethene                | 1   | 19.8297         | 0           | 20                    | 99       | 30          | 160         |
| Bromochloromethane                    | 1   | 16.6762         | 0           | 20                    | 83       | 30          | 160         |
| 2,2-Dichloropropane                   | 1   | 23.3858         | 0           | 20                    | 117      | 10          | 200         |
| Ethyl acetate                         | 1   | 18.2827         | 0           | 20                    | 91       | 10          | 200         |
| 1,4-Dioxane                           | 1   | 877.5509        | 0           | 1000                  | 88       | 0           | 250         |
| 1,1-Dichloropropene                   | 1   | 20.8795         | 0           | 20                    | 104      | 40          | 150         |
| Chloroform                            | 1   | 17.9705         | 0           | 20                    | 90       | 70          | 135         |
| Cyclohexane                           | 1   | 21.9844         | 0           | 20                    | 110      | 20          | 200         |
| 1,2-Dichloroethane                    | 1   | 23.1102         | 0           | 20                    | 116      | 70          | 130         |
| 2-Butanone                            | 1   | 13.4808         | 0           | 20                    | 67       | 0           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 19.0825         | 0           | 20                    | 95       | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 19.4715         | 0           | 20                    | 97       | 70          | 130         |
| Vinyl Acetate                         | 1   | 19.3438         | 0           | 20                    | 97       | 20          | 200         |
| Bromodichloromethane                  | 1   | 19.0583         | 0           | 20                    | 95       | 65          | 135         |
| Methylcyclohexane                     | 1   | 21.4085         | 0           | 20                    | 107      | 10          | 200         |
| Dibromomethane                        | 1   | 22.72           | 0           | 20                    | 114      | 20          | 160         |
| 1,2-Dichloropropane                   | 1   | 19.0447         | 0           | 20                    | 95       | 35          | 135         |
| Trichloroethene                       | 1   | 19.3188         | 0           | 20                    | 97       | 65          | 135         |
| Benzene                               | 1   | 21.8995         | 0           | 20                    | 109      | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 17.6296         | 0           | 20                    | 88       | 20          | 150         |
| Iso-propylacetate                     | 1   | 15.3624         | 0           | 20                    | 77       | 10          | 200         |
| Methyl methacrylate                   | 1   | 15.9358         | 0           | 20                    | 80       | 10          | 200         |
| Dibromochloromethane                  | 1   | 15.2206         | 0           | 20                    | 76       | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 15.6202         | 0           | 20                    | 78       | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 15.9042         | 0           | 20                    | 80       | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 15.951          | 0           | 20                    | 80       | 50          | 150         |
| Ethyl methacrylate                    | 1   | 15.245          | 0           | 20                    | 76       | 10          | 200         |
| 1,1,2-Trichloroethane                 | 1   | 18.6864         | 0           | 20                    | 93       | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 15.4051         | 0           | 20                    | 77       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 19.605          | 0           | 20                    | 98       | 20          | 200         |
| 4-Methyl-2-Pentanone                  | 1   | 14.2485         | 0           | 20                    | 71       | 10          | 200         |
| 2-Hexanone                            | 1   | 13.3528         | 0           | 20                    | 67       | 10          | 200         |
| Tetrachloroethene                     | 1   | 22.2488         | 0           | 20                    | 111      | 70          | 130         |
| Toluene                               | 1   | 17.3671         | 0           | 20                    | 87       | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 20.0446         | 0           | 20                    | 100      | 40          | 160         |
| Chlorobenzene                         | 1   | 17.0666         | 0           | 20                    | 85       | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73432

|                             |   |         |   |     |      |    |     |
|-----------------------------|---|---------|---|-----|------|----|-----|
| n-Butyl acrylate            | 1 | 14.9316 | 0 | 20  | 75   | 10 | 200 |
| n-Amyl acetate              | 1 | 15.3579 | 0 | 20  | 77   | 20 | 150 |
| Bromoform                   | 1 | 12.8716 | 0 | 20  | 64 * | 70 | 130 |
| Ethylbenzene                | 1 | 16.4218 | 0 | 20  | 82   | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 15.0297 | 0 | 20  | 75   | 60 | 140 |
| Styrene                     | 1 | 18.0264 | 0 | 20  | 90   | 20 | 160 |
| m&p-Xylenes                 | 1 | 34.9904 | 0 | 40  | 87   | 20 | 200 |
| o-Xylene                    | 1 | 17.9016 | 0 | 20  | 90   | 20 | 200 |
| trans-1,4-Dichloro-2-butene | 1 | 15.9163 | 0 | 20  | 80   | 10 | 200 |
| 1,3-Dichlorobenzene         | 1 | 15.9585 | 0 | 20  | 80   | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 15.7804 | 0 | 20  | 79   | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 15.4114 | 0 | 20  | 77   | 65 | 135 |
| Isopropylbenzene            | 1 | 17.4602 | 0 | 20  | 87   | 20 | 160 |
| Cyclohexanone               | 1 | 85.2616 | 0 | 100 | 85   | 0  | 300 |
| Camphene                    | 1 | 17.3273 | 0 | 20  | 87   | 10 | 200 |
| 1,2,3-Trichloropropane      | 1 | 14.6861 | 0 | 20  | 73   | 30 | 150 |
| 2-Chlorotoluene             | 1 | 18.9544 | 0 | 20  | 95   | 30 | 160 |
| p-Ethyltoluene              | 1 | 16.852  | 0 | 20  | 84   | 10 | 250 |
| 4-Chlorotoluene             | 1 | 16.5492 | 0 | 20  | 83   | 30 | 150 |
| n-Propylbenzene             | 1 | 17.4155 | 0 | 20  | 87   | 20 | 160 |
| Bromobenzene                | 1 | 15.6971 | 0 | 20  | 78   | 30 | 150 |
| 1,3,5-Trimethylbenzene      | 1 | 19.1604 | 0 | 20  | 96   | 30 | 200 |
| Butyl methacrylate          | 1 | 17.4213 | 0 | 20  | 87   | 10 | 200 |
| t-Butylbenzene              | 1 | 17.3518 | 0 | 20  | 87   | 20 | 160 |
| 1,2,4-Trimethylbenzene      | 1 | 17.2165 | 0 | 20  | 86   | 30 | 200 |
| sec-Butylbenzene            | 1 | 18.6125 | 0 | 20  | 93   | 20 | 160 |
| 4-Isopropyltoluene          | 1 | 17.8023 | 0 | 20  | 89   | 30 | 150 |
| n-Butylbenzene              | 1 | 17.8036 | 0 | 20  | 89   | 20 | 200 |
| p-Diethylbenzene            | 1 | 17.1095 | 0 | 20  | 86   | 10 | 250 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 17.5212 | 0 | 20  | 88   | 10 | 200 |
| 1,2-Dibromo-3-Chloropropane | 1 | 14.1394 | 0 | 20  | 71   | 0  | 200 |
| Camphor                     | 1 | 93.741  | 0 | 200 | 47   | 0  | 200 |
| Hexachlorobutadiene         | 1 | 16.8519 | 0 | 20  | 84   | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 16.8633 | 0 | 20  | 84   | 5  | 200 |
| 1,2,3-Trichlorobenzene      | 1 | 15.9532 | 0 | 20  | 80   | 0  | 200 |
| Naphthalene                 | 1 | 15.8033 | 0 | 20  | 79   | 0  | 250 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73436**

8101509 0120

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138706.D              |     | MBS73436        |             | 10/22/2018 3:21:00 PM |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 40.0205         | 0           | 20                    | 200      | 0           | 300         |
| Dichlorodifluoromethane               | 1   | 41.175          | 0           | 20                    | 206      | 1           | 300         |
| Chloromethane                         | 1   | 37.8976         | 0           | 20                    | 189      | 1           | 205         |
| Bromomethane                          | 1   | 31.8542         | 0           | 20                    | 159      | 15          | 185         |
| Vinyl Chloride                        | 1   | 26.4677         | 0           | 20                    | 132      | 5           | 195         |
| Chloroethane                          | 1   | 32.0745         | 0           | 20                    | 160      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 26.3012         | 0           | 20                    | 132      | 50          | 150         |
| Ethyl ether                           | 1   | 20.9172         | 0           | 20                    | 105      | 10          | 160         |
| Furan                                 | 1   | 19.269          | 0           | 20                    | 96       | 20          | 200         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 30.5489         | 0           | 20                    | 153      | 20          | 200         |
| Methylene Chloride                    | 1   | 26.0747         | 0           | 20                    | 130      | 60          | 140         |
| Acrolein                              | 1   | 102.3589        | 0           | 100                   | 102      | 60          | 140         |
| Acrylonitrile                         | 1   | 22.5309         | 0           | 20                    | 113      | 60          | 140         |
| Iodomethane                           | 1   | 25.6035         | 0           | 20                    | 128      | 1           | 200         |
| Acetone                               | 1   | 97.7749         | 0           | 100                   | 98       | 10          | 200         |
| Carbon Disulfide                      | 1   | 23.5394         | 0           | 20                    | 118      | 10          | 160         |
| t-Butyl Alcohol                       | 1   | 91.5061         | 0           | 100                   | 92       | 1           | 200         |
| n-Hexane                              | 1   | 29.438          | 0           | 20                    | 147      | 0           | 300         |
| Di-isopropyl-ether                    | 1   | 24.1923         | 0           | 20                    | 121      | 20          | 200         |
| 1,1-Dichloroethene                    | 1   | 24.2763         | 0           | 20                    | 121      | 50          | 150         |
| Methyl Acetate                        | 1   | 20.2855         | 0           | 20                    | 101      | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 24.4074         | 0           | 20                    | 122      | 20          | 200         |
| 1,1-Dichloroethane                    | 1   | 22.2336         | 0           | 20                    | 111      | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 25.1992         | 0           | 20                    | 126      | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 24.7198         | 0           | 20                    | 124      | 20          | 160         |
| cis-1,2-Dichloroethene                | 1   | 24.7815         | 0           | 20                    | 124      | 30          | 160         |
| Bromochloromethane                    | 1   | 20.5985         | 0           | 20                    | 103      | 30          | 160         |
| 2,2-Dichloropropane                   | 1   | 28.8424         | 0           | 20                    | 144      | 10          | 200         |
| Ethyl acetate                         | 1   | 21.4055         | 0           | 20                    | 107      | 10          | 200         |
| 1,4-Dioxane                           | 1   | 1102.319        | 0           | 1000                  | 110      | 0           | 250         |
| 1,1-Dichloropropene                   | 1   | 25.7802         | 0           | 20                    | 129      | 40          | 150         |
| Chloroform                            | 1   | 22.1087         | 0           | 20                    | 111      | 70          | 135         |
| Cyclohexane                           | 1   | 27.6079         | 0           | 20                    | 138      | 20          | 200         |
| 1,2-Dichloroethane                    | 1   | 26.59           | 0           | 20                    | 133 *    | 70          | 130         |
| 2-Butanone                            | 1   | 21.3605         | 0           | 20                    | 107      | 0           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 23.8775         | 0           | 20                    | 119      | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 24.8415         | 0           | 20                    | 124      | 70          | 130         |
| Vinyl Acetate                         | 1   | 23.7555         | 0           | 20                    | 119      | 20          | 200         |
| Bromodichloromethane                  | 1   | 23.0622         | 0           | 20                    | 115      | 65          | 135         |
| Methylcyclohexane                     | 1   | 30.0859         | 0           | 20                    | 150      | 10          | 200         |
| Dibromomethane                        | 1   | 27.0077         | 0           | 20                    | 135      | 20          | 160         |
| 1,2-Dichloropropane                   | 1   | 24.6972         | 0           | 20                    | 123      | 35          | 135         |
| Trichloroethene                       | 1   | 26.9604         | 0           | 20                    | 135      | 65          | 135         |
| Benzene                               | 1   | 28.6961         | 0           | 20                    | 143 *    | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 23.2774         | 0           | 20                    | 116      | 20          | 150         |
| Iso-propylacetate                     | 1   | 19.3803         | 0           | 20                    | 97       | 10          | 200         |
| Methyl methacrylate                   | 1   | 18.3517         | 0           | 20                    | 92       | 10          | 200         |
| Dibromochloromethane                  | 1   | 17.5544         | 0           | 20                    | 88       | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 20.5287         | 0           | 20                    | 103      | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 19.088          | 0           | 20                    | 95       | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 19.0806         | 0           | 20                    | 95       | 50          | 150         |
| Ethyl methacrylate                    | 1   | 19.6972         | 0           | 20                    | 98       | 10          | 200         |
| 1,1,2-Trichloroethane                 | 1   | 22.928          | 0           | 20                    | 115      | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 18.6295         | 0           | 20                    | 93       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 21.6507         | 0           | 20                    | 108      | 20          | 200         |
| 4-Methyl-2-Pentanone                  | 1   | 17.2373         | 0           | 20                    | 86       | 10          | 200         |
| 2-Hexanone                            | 1   | 19.9891         | 0           | 20                    | 100      | 10          | 200         |
| Tetrachloroethene                     | 1   | 25.7311         | 0           | 20                    | 129      | 70          | 130         |
| Toluene                               | 1   | 20.416          | 0           | 20                    | 102      | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 23.6803         | 0           | 20                    | 118      | 40          | 160         |
| Chlorobenzene                         | 1   | 20.1291         | 0           | 20                    | 101      | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73436

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 20.6779  | 0 | 20  | 103 | 10 | 200 |
| n-Amyl acetate              | 1 | 20.3745  | 0 | 20  | 102 | 20 | 150 |
| Bromoform                   | 1 | 17.7563  | 0 | 20  | 89  | 70 | 130 |
| Ethylbenzene                | 1 | 22.7006  | 0 | 20  | 114 | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 17.773   | 0 | 20  | 89  | 60 | 140 |
| Styrene                     | 1 | 21.5801  | 0 | 20  | 108 | 20 | 160 |
| m&p-Xylenes                 | 1 | 44.3744  | 0 | 40  | 111 | 20 | 200 |
| o-Xylene                    | 1 | 22.0264  | 0 | 20  | 110 | 20 | 200 |
| trans-1,4-Dichloro-2-butene | 1 | 19.4806  | 0 | 20  | 97  | 10 | 200 |
| 1,3-Dichlorobenzene         | 1 | 18.9875  | 0 | 20  | 95  | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 18.8504  | 0 | 20  | 94  | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 19.054   | 0 | 20  | 95  | 65 | 135 |
| Isopropylbenzene            | 1 | 22.6948  | 0 | 20  | 113 | 20 | 160 |
| Cyclohexanone               | 1 | 83.2731  | 0 | 100 | 83  | 0  | 300 |
| Camphene                    | 1 | 21.8836  | 0 | 20  | 109 | 10 | 200 |
| 1,2,3-Trichloropropane      | 1 | 18.249   | 0 | 20  | 91  | 30 | 150 |
| 2-Chlorotoluene             | 1 | 21.9004  | 0 | 20  | 110 | 30 | 160 |
| p-Ethyltoluene              | 1 | 21.82    | 0 | 20  | 109 | 10 | 250 |
| 4-Chlorotoluene             | 1 | 20.5633  | 0 | 20  | 103 | 30 | 150 |
| n-Propylbenzene             | 1 | 21.6127  | 0 | 20  | 108 | 20 | 160 |
| Bromobenzene                | 1 | 19.0368  | 0 | 20  | 95  | 30 | 150 |
| 1,3,5-Trimethylbenzene      | 1 | 21.9521  | 0 | 20  | 110 | 30 | 200 |
| Butyl methacrylate          | 1 | 20.9282  | 0 | 20  | 105 | 10 | 200 |
| t-Butylbenzene              | 1 | 22.5253  | 0 | 20  | 113 | 20 | 160 |
| 1,2,4-Trimethylbenzene      | 1 | 21.5421  | 0 | 20  | 108 | 30 | 200 |
| sec-Butylbenzene            | 1 | 22.0227  | 0 | 20  | 110 | 20 | 160 |
| 4-Isopropyltoluene          | 1 | 21.2405  | 0 | 20  | 106 | 30 | 150 |
| n-Butylbenzene              | 1 | 21.2886  | 0 | 20  | 106 | 20 | 200 |
| p-Diethylbenzene            | 1 | 22.4391  | 0 | 20  | 112 | 10 | 250 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 22.5188  | 0 | 20  | 113 | 10 | 200 |
| 1,2-Dibromo-3-Chloropropane | 1 | 20.9896  | 0 | 20  | 105 | 0  | 200 |
| Camphor                     | 1 | 101.5269 | 0 | 200 | 51  | 0  | 200 |
| Hexachlorobutadiene         | 1 | 19.0881  | 0 | 20  | 95  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 18.8881  | 0 | 20  | 94  | 5  | 200 |
| 1,2,3-Trichlorobenzene      | 1 | 16.5723  | 0 | 20  | 83  | 0  | 200 |
| Naphthalene                 | 1 | 19.1212  | 0 | 20  | 96  | 0  | 250 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73438**

8101509 0122

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138725.D              |     | MBS73438        |             | 10/23/2018 9:12:00 AM |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 37.0115         | 0           | 20                    | 185      | 0           | 300         |
| Dichlorodifluoromethane               | 1   | 35.4253         | 0           | 20                    | 177      | 1           | 300         |
| Chloromethane                         | 1   | 31.6777         | 0           | 20                    | 158      | 1           | 205         |
| Bromomethane                          | 1   | 25.8167         | 0           | 20                    | 129      | 15          | 185         |
| Vinyl Chloride                        | 1   | 25.5212         | 0           | 20                    | 128      | 5           | 195         |
| Chloroethane                          | 1   | 27.7773         | 0           | 20                    | 139      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 20.8089         | 0           | 20                    | 104      | 50          | 150         |
| Ethyl ether                           | 1   | 16.7614         | 0           | 20                    | 84       | 10          | 160         |
| Furan                                 | 1   | 17.2234         | 0           | 20                    | 86       | 20          | 200         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 27.4357         | 0           | 20                    | 137      | 20          | 200         |
| Methylene Chloride                    | 1   | 22.8488         | 0           | 20                    | 114      | 60          | 140         |
| Acrolein                              | 1   | 93.0719         | 0           | 100                   | 93       | 60          | 140         |
| Acrylonitrile                         | 1   | 18.2056         | 0           | 20                    | 91       | 60          | 140         |
| Iodomethane                           | 1   | 20.8904         | 0           | 20                    | 104      | 1           | 200         |
| Acetone                               | 1   | 83.4751         | 0           | 100                   | 83       | 10          | 200         |
| Carbon Disulfide                      | 1   | 20.2144         | 0           | 20                    | 101      | 10          | 160         |
| t-Butyl Alcohol                       | 1   | 72.864          | 0           | 100                   | 73       | 1           | 200         |
| n-Hexane                              | 1   | 23.2698         | 0           | 20                    | 116      | 0           | 300         |
| Di-isopropyl-ether                    | 1   | 20.1945         | 0           | 20                    | 101      | 20          | 200         |
| 1,1-Dichloroethene                    | 1   | 22.0125         | 0           | 20                    | 110      | 50          | 150         |
| Methyl Acetate                        | 1   | 16.7035         | 0           | 20                    | 84       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 20.0187         | 0           | 20                    | 100      | 20          | 200         |
| 1,1-Dichloroethane                    | 1   | 20.3271         | 0           | 20                    | 102      | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 20.681          | 0           | 20                    | 103      | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 20.542          | 0           | 20                    | 103      | 20          | 160         |
| cis-1,2-Dichloroethene                | 1   | 20.7066         | 0           | 20                    | 104      | 30          | 160         |
| Bromochloromethane                    | 1   | 21.9558         | 0           | 20                    | 110      | 30          | 160         |
| 2,2-Dichloropropane                   | 1   | 25.3114         | 0           | 20                    | 127      | 10          | 200         |
| Ethyl acetate                         | 1   | 18.6225         | 0           | 20                    | 93       | 10          | 200         |
| 1,4-Dioxane                           | 1   | 937.0468        | 0           | 1000                  | 94       | 0           | 250         |
| 1,1-Dichloropropene                   | 1   | 23.6373         | 0           | 20                    | 118      | 40          | 150         |
| Chloroform                            | 1   | 19.6903         | 0           | 20                    | 98       | 70          | 135         |
| Cyclohexane                           | 1   | 22.8178         | 0           | 20                    | 114      | 20          | 200         |
| 1,2-Dichloroethane                    | 1   | 23.7742         | 0           | 20                    | 119      | 70          | 130         |
| 2-Butanone                            | 1   | 16.0055         | 0           | 20                    | 80       | 0           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 21.075          | 0           | 20                    | 105      | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 21.9806         | 0           | 20                    | 110      | 70          | 130         |
| Vinyl Acetate                         | 1   | 20.155          | 0           | 20                    | 101      | 20          | 200         |
| Bromodichloromethane                  | 1   | 22.0467         | 0           | 20                    | 110      | 65          | 135         |
| Methylcyclohexane                     | 1   | 24.726          | 0           | 20                    | 124      | 10          | 200         |
| Dibromomethane                        | 1   | 24.4954         | 0           | 20                    | 122      | 20          | 160         |
| 1,2-Dichloropropane                   | 1   | 19.215          | 0           | 20                    | 96       | 35          | 135         |
| Trichloroethene                       | 1   | 21.6852         | 0           | 20                    | 108      | 65          | 135         |
| Benzene                               | 1   | 23.9237         | 0           | 20                    | 120      | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 18.7855         | 0           | 20                    | 94       | 20          | 150         |
| Iso-propylacetate                     | 1   | 15.5713         | 0           | 20                    | 78       | 10          | 200         |
| Methyl methacrylate                   | 1   | 16.6379         | 0           | 20                    | 83       | 10          | 200         |
| Dibromochloromethane                  | 1   | 16.1549         | 0           | 20                    | 81       | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 14.5669         | 0           | 20                    | 73       | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 16.2927         | 0           | 20                    | 81       | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 15.401          | 0           | 20                    | 77       | 50          | 150         |
| Ethyl methacrylate                    | 1   | 16.0193         | 0           | 20                    | 80       | 10          | 200         |
| 1,1,2-Trichloroethane                 | 1   | 20.2906         | 0           | 20                    | 101      | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 16.7349         | 0           | 20                    | 84       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 19.9214         | 0           | 20                    | 100      | 20          | 200         |
| 4-Methyl-2-Pentanone                  | 1   | 15.063          | 0           | 20                    | 75       | 10          | 200         |
| 2-Hexanone                            | 1   | 15.0627         | 0           | 20                    | 75       | 10          | 200         |
| Tetrachloroethene                     | 1   | 23.2405         | 0           | 20                    | 116      | 70          | 130         |
| Toluene                               | 1   | 17.3758         | 0           | 20                    | 87       | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 20.7174         | 0           | 20                    | 104      | 40          | 160         |
| Chlorobenzene                         | 1   | 17.5712         | 0           | 20                    | 88       | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73438

|                             |   |         |   |     |     |    |     |
|-----------------------------|---|---------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 14.2993 | 0 | 20  | 71  | 10 | 200 |
| n-Amyl acetate              | 1 | 14.5553 | 0 | 20  | 73  | 20 | 150 |
| Bromoform                   | 1 | 13.8687 | 0 | 20  | 69* | 70 | 130 |
| Ethylbenzene                | 1 | 16.1762 | 0 | 20  | 81  | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 14.4984 | 0 | 20  | 72  | 60 | 140 |
| Styrene                     | 1 | 17.6697 | 0 | 20  | 88  | 20 | 160 |
| m&p-Xylenes                 | 1 | 36.5058 | 0 | 40  | 91  | 20 | 200 |
| o-Xylene                    | 1 | 17.4216 | 0 | 20  | 87  | 20 | 200 |
| trans-1,4-Dichloro-2-butene | 1 | 16.1771 | 0 | 20  | 81  | 10 | 200 |
| 1,3-Dichlorobenzene         | 1 | 16.0994 | 0 | 20  | 80  | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 15.0025 | 0 | 20  | 75  | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 15.3369 | 0 | 20  | 77  | 65 | 135 |
| Isopropylbenzene            | 1 | 17.6141 | 0 | 20  | 88  | 20 | 160 |
| Cyclohexanone               | 1 | 70.1315 | 0 | 100 | 70  | 0  | 300 |
| Camphene                    | 1 | 15.9799 | 0 | 20  | 80  | 10 | 200 |
| 1,2,3-Trichloropropane      | 1 | 14.0815 | 0 | 20  | 70  | 30 | 150 |
| 2-Chlorotoluene             | 1 | 18.7893 | 0 | 20  | 94  | 30 | 160 |
| p-Ethyltoluene              | 1 | 16.3429 | 0 | 20  | 82  | 10 | 250 |
| 4-Chlorotoluene             | 1 | 17.0024 | 0 | 20  | 85  | 30 | 150 |
| n-Propylbenzene             | 1 | 16.2325 | 0 | 20  | 81  | 20 | 160 |
| Bromobenzene                | 1 | 14.9057 | 0 | 20  | 75  | 30 | 150 |
| 1,3,5-Trimethylbenzene      | 1 | 19.3784 | 0 | 20  | 97  | 30 | 200 |
| Butyl methacrylate          | 1 | 15.8953 | 0 | 20  | 79  | 10 | 200 |
| t-Butylbenzene              | 1 | 17.1702 | 0 | 20  | 86  | 20 | 160 |
| 1,2,4-Trimethylbenzene      | 1 | 16.3757 | 0 | 20  | 82  | 30 | 200 |
| sec-Butylbenzene            | 1 | 16.9086 | 0 | 20  | 85  | 20 | 160 |
| 4-Isopropyltoluene          | 1 | 16.8475 | 0 | 20  | 84  | 30 | 150 |
| n-Butylbenzene              | 1 | 16.4928 | 0 | 20  | 82  | 20 | 200 |
| p-Diethylbenzene            | 1 | 17.15   | 0 | 20  | 86  | 10 | 250 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 16.2988 | 0 | 20  | 81  | 10 | 200 |
| 1,2-Dibromo-3-Chloropropane | 1 | 15.8178 | 0 | 20  | 79  | 0  | 200 |
| Camphor                     | 1 | 63.3321 | 0 | 200 | 32  | 0  | 200 |
| Hexachlorobutadiene         | 1 | 15.5234 | 0 | 20  | 78  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 14.6172 | 0 | 20  | 73  | 5  | 200 |
| 1,2,3-Trichlorobenzene      | 1 | 13.5215 | 0 | 20  | 68  | 0  | 200 |
| Naphthalene                 | 1 | 13.7173 | 0 | 20  | 69  | 0  | 250 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73499**

8101509 0124

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M139074.D              |     | MBS73499        |             | 10/27/2018 2:27:00 PM |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 31.8099         | 0           | 20                    | 159      | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 39.5836         | 0           | 20                    | 198      | 1           | 300         |
| Chloromethane                         | 1   | 35.4909         | 0           | 20                    | 177      | 1           | 205         |
| Bromomethane                          | 1   | 23.7399         | 0           | 20                    | 119      | 15          | 185         |
| Vinyl Chloride                        | 1   | 25.3551         | 0           | 20                    | 127      | 5           | 195         |
| Chloroethane                          | 1   | 22.8865         | 0           | 20                    | 114      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 21.2731         | 0           | 20                    | 106      | 50          | 150         |
| Ethyl ether                           | 1   | 18.0909         | 0           | 20                    | 90       | 30          | 150         |
| Furan                                 | 1   | 20.4654         | 0           | 20                    | 102      | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 25.2119         | 0           | 20                    | 126      | 40          | 170         |
| Methylene Chloride                    | 1   | 23.2177         | 0           | 20                    | 116      | 60          | 140         |
| Acrolein                              | 1   | 109.1564        | 0           | 100                   | 109      | 60          | 140         |
| Acrylonitrile                         | 1   | 22.8389         | 0           | 20                    | 114      | 60          | 140         |
| Iodomethane                           | 1   | 18.6579         | 0           | 20                    | 93       | 1           | 200         |
| Acetone                               | 1   | 109.2891        | 0           | 100                   | 109      | 20          | 160         |
| Carbon Disulfide                      | 1   | 21.5634         | 0           | 20                    | 108      | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 97.4219         | 0           | 100                   | 97       | 1           | 200         |
| n-Hexane                              | 1   | 25.722          | 0           | 20                    | 129      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 25.3037         | 0           | 20                    | 127      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 22.033          | 0           | 20                    | 110      | 50          | 150         |
| Methyl Acetate                        | 1   | 21.2655         | 0           | 20                    | 106      | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 20.8949         | 0           | 20                    | 104      | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 22.4491         | 0           | 20                    | 112      | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 19.0259         | 0           | 20                    | 95       | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 23.5379         | 0           | 20                    | 118      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 22.203          | 0           | 20                    | 111      | 40          | 160         |
| Bromochloromethane                    | 1   | 22.9462         | 0           | 20                    | 115      | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 24.4024         | 0           | 20                    | 122      | 10          | 200         |
| Ethyl acetate                         | 1   | 26.1371         | 0           | 20                    | 131      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 783.652         | 0           | 1000                  | 78       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 23.8417         | 0           | 20                    | 119      | 50          | 150         |
| Chloroform                            | 1   | 18.3549         | 0           | 20                    | 92       | 70          | 135         |
| Cyclohexane                           | 1   | 29.3868         | 0           | 20                    | 147      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 23.2714         | 0           | 20                    | 116      | 70          | 130         |
| 2-Butanone                            | 1   | 23.3495         | 0           | 20                    | 117      | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 19.4769         | 0           | 20                    | 97       | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 21.1934         | 0           | 20                    | 106      | 70          | 130         |
| Vinyl Acetate                         | 1   | 24.0137         | 0           | 20                    | 120      | 20          | 170         |
| Bromodichloromethane                  | 1   | 20.3081         | 0           | 20                    | 102      | 65          | 135         |
| Methylcyclohexane                     | 1   | 27.3396         | 0           | 20                    | 137      | 30          | 170         |
| Dibromomethane                        | 1   | 23.3147         | 0           | 20                    | 117      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 25.8549         | 0           | 20                    | 129      | 35          | 135         |
| Trichloroethene                       | 1   | 20.8421         | 0           | 20                    | 104      | 65          | 135         |
| Benzene                               | 1   | 25.2089         | 0           | 20                    | 126      | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 21.8572         | 0           | 20                    | 109      | 30          | 150         |
| Iso-propylacetate                     | 1   | 27.0764         | 0           | 20                    | 135      | 20          | 150         |
| Methyl methacrylate                   | 1   | 26.6733         | 0           | 20                    | 133      | 10          | 170         |
| Dibromochloromethane                  | 1   | 20.0887         | 0           | 20                    | 100      | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 26.9936         | 0           | 20                    | 135      | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 22.796          | 0           | 20                    | 114      | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 22.2445         | 0           | 20                    | 111      | 50          | 150         |
| Ethyl methacrylate                    | 1   | 25.6873         | 0           | 20                    | 128      | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 24.9742         | 0           | 20                    | 125      | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 19.8442         | 0           | 20                    | 99       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 27.513          | 0           | 20                    | 138 *    | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 25.7242         | 0           | 20                    | 129      | 30          | 150         |
| 2-Hexanone                            | 1   | 25.6385         | 0           | 20                    | 128      | 20          | 150         |
| Tetrachloroethene                     | 1   | 27.4945         | 0           | 20                    | 137 *    | 70          | 130         |
| Toluene                               | 1   | 22.1215         | 0           | 20                    | 111      | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 23.66           | 0           | 20                    | 118      | 50          | 150         |
| Chlorobenzene                         | 1   | 20.9518         | 0           | 20                    | 105      | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73499

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 25.5755  | 0 | 20  | 128 | 10 | 140 |
| n-Amyl acetate              | 1 | 26.5762  | 0 | 20  | 133 | 20 | 150 |
| Bromoform                   | 1 | 18.4609  | 0 | 20  | 92  | 70 | 130 |
| Ethylbenzene                | 1 | 21.6379  | 0 | 20  | 108 | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.4013  | 0 | 20  | 112 | 60 | 140 |
| Styrene                     | 1 | 22.3536  | 0 | 20  | 112 | 40 | 150 |
| m&p-Xylenes                 | 1 | 46.6928  | 0 | 40  | 117 | 40 | 150 |
| o-Xylene                    | 1 | 23.9654  | 0 | 20  | 120 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 22.7588  | 0 | 20  | 114 | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 19.4798  | 0 | 20  | 97  | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 19.3096  | 0 | 20  | 97  | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 20.0641  | 0 | 20  | 100 | 65 | 135 |
| Isopropylbenzene            | 1 | 23.8909  | 0 | 20  | 119 | 40 | 150 |
| Cyclohexanone               | 1 | 135.4001 | 0 | 100 | 135 | 1  | 300 |
| Camphene                    | 1 | 21.224   | 0 | 20  | 106 | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 22.6506  | 0 | 20  | 113 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 24.0708  | 0 | 20  | 120 | 40 | 150 |
| p-Ethyltoluene              | 1 | 20.2729  | 0 | 20  | 101 | 10 | 200 |
| 4-Chlorotoluene             | 1 | 23.067   | 0 | 20  | 115 | 40 | 150 |
| n-Propylbenzene             | 1 | 24.559   | 0 | 20  | 123 | 40 | 150 |
| Bromobenzene                | 1 | 21.0689  | 0 | 20  | 105 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 25.3091  | 0 | 20  | 127 | 40 | 150 |
| Butyl methacrylate          | 1 | 26.9957  | 0 | 20  | 135 | 20 | 150 |
| t-Butylbenzene              | 1 | 22.1069  | 0 | 20  | 111 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 21.9251  | 0 | 20  | 110 | 40 | 150 |
| sec-Butylbenzene            | 1 | 23.1527  | 0 | 20  | 116 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 21.1332  | 0 | 20  | 106 | 40 | 150 |
| n-Butylbenzene              | 1 | 24.0103  | 0 | 20  | 120 | 30 | 160 |
| p-Diethylbenzene            | 1 | 23.5751  | 0 | 20  | 118 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 25.1439  | 0 | 20  | 126 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 22.0152  | 0 | 20  | 110 | 10 | 150 |
| Camphor                     | 1 | 92.6864  | 0 | 200 | 46  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 19.4088  | 0 | 20  | 97  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 19.5924  | 0 | 20  | 98  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 17.4893  | 0 | 20  | 87  | 5  | 180 |
| Naphthalene                 | 1 | 20.5107  | 0 | 20  | 103 | 1  | 200 |



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73460**

8101509 0126

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 1M112531.D              |     | MBS73460        |             | 10/24/2018 12:51:00 P |          |             |             |
| Non Spike(If applicable):             |     |                 |             |                       |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MBS          |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 15.8902         | 0           | 20                    | 79       | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 79.8623         | 0           | 20                    | 399 *    | 1           | 300         |
| Chloromethane                         | 1   | 37.7            | 0           | 20                    | 188      | 1           | 205         |
| Bromomethane                          | 1   | 20.2069         | 0           | 20                    | 101      | 15          | 185         |
| Vinyl Chloride                        | 1   | 24.8449         | 0           | 20                    | 124      | 5           | 195         |
| Chloroethane                          | 1   | 26.8709         | 0           | 20                    | 134      | 40          | 160         |
| Trichlorofluoromethane                | 1   | 22.933          | 0           | 20                    | 115      | 50          | 150         |
| Ethyl ether                           | 1   | 16.5384         | 0           | 20                    | 83       | 30          | 150         |
| Furan                                 | 1   | 18.2972         | 0           | 20                    | 91       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 24.3045         | 0           | 20                    | 122      | 40          | 170         |
| Methylene Chloride                    | 1   | 15.6792         | 0           | 20                    | 78       | 60          | 140         |
| Acrolein                              | 1   | 104.2965        | 0           | 100                   | 104      | 60          | 140         |
| Acrylonitrile                         | 1   | 15.8518         | 0           | 20                    | 79       | 60          | 140         |
| Iodomethane                           | 1   | 17.0109         | 0           | 20                    | 85       | 1           | 200         |
| Acetone                               | 1   | 90.6069         | 0           | 100                   | 91       | 20          | 160         |
| Carbon Disulfide                      | 1   | 17.1065         | 0           | 20                    | 86       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 52.2365         | 0           | 100                   | 52       | 1           | 200         |
| n-Hexane                              | 1   | 35.4685         | 0           | 20                    | 177      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 15.3755         | 0           | 20                    | 77       | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 21.1578         | 0           | 20                    | 106      | 50          | 150         |
| Methyl Acetate                        | 1   | 14.34           | 0           | 20                    | 72       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 13.8944         | 0           | 20                    | 69       | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 16.7499         | 0           | 20                    | 84       | 70          | 130         |
| trans-1,2-Dichloroethene              | 1   | 16.2138         | 0           | 20                    | 81       | 70          | 130         |
| Ethyl-t-butyl ether                   | 1   | 13.7986         | 0           | 20                    | 69       | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 17.6176         | 0           | 20                    | 88       | 40          | 160         |
| Bromochloromethane                    | 1   | 18.9704         | 0           | 20                    | 95       | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 18.6493         | 0           | 20                    | 93       | 10          | 200         |
| Ethyl acetate                         | 1   | 17.3472         | 0           | 20                    | 87       | 20          | 170         |
| 1,4-Dioxane                           | 1   | 597.9227        | 0           | 1000                  | 60       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 18.1324         | 0           | 20                    | 91       | 50          | 150         |
| Chloroform                            | 1   | 18.1799         | 0           | 20                    | 91       | 70          | 135         |
| Cyclohexane                           | 1   | 16.6737         | 0           | 20                    | 83       | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 18.253          | 0           | 20                    | 91       | 70          | 130         |
| 2-Butanone                            | 1   | 13.2581         | 0           | 20                    | 66       | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 17.6479         | 0           | 20                    | 88       | 70          | 130         |
| Carbon Tetrachloride                  | 1   | 17.5263         | 0           | 20                    | 88       | 70          | 130         |
| Vinyl Acetate                         | 1   | 18.5569         | 0           | 20                    | 93       | 20          | 170         |
| Bromodichloromethane                  | 1   | 17.6653         | 0           | 20                    | 88       | 65          | 135         |
| Methylcyclohexane                     | 1   | 16.7951         | 0           | 20                    | 84       | 30          | 170         |
| Dibromomethane                        | 1   | 16.4459         | 0           | 20                    | 82       | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 17.3266         | 0           | 20                    | 87       | 35          | 135         |
| Trichloroethene                       | 1   | 16.6749         | 0           | 20                    | 83       | 65          | 135         |
| Benzene                               | 1   | 17.9606         | 0           | 20                    | 90       | 65          | 135         |
| tert-Amyl methyl ether                | 1   | 13.7321         | 0           | 20                    | 69       | 30          | 150         |
| Iso-propylacetate                     | 1   | 16.3996         | 0           | 20                    | 82       | 20          | 150         |
| Methyl methacrylate                   | 1   | 16.8988         | 0           | 20                    | 84       | 10          | 170         |
| Dibromochloromethane                  | 1   | 18.5713         | 0           | 20                    | 93       | 70          | 135         |
| 2-Chloroethylvinylether               | 1   | 22.388          | 0           | 20                    | 112      | 1           | 225         |
| cis-1,3-Dichloropropene               | 1   | 18.5225         | 0           | 20                    | 93       | 25          | 175         |
| trans-1,3-Dichloropropene             | 1   | 17.657          | 0           | 20                    | 88       | 50          | 150         |
| Ethyl methacrylate                    | 1   | 19.7474         | 0           | 20                    | 99       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 19.13           | 0           | 20                    | 96       | 70          | 130         |
| 1,2-Dibromoethane                     | 1   | 18.1006         | 0           | 20                    | 91       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 18.8613         | 0           | 20                    | 94       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 17.7828         | 0           | 20                    | 89       | 30          | 150         |
| 2-Hexanone                            | 1   | 17.5887         | 0           | 20                    | 88       | 20          | 150         |
| Tetrachloroethene                     | 1   | 18.1378         | 0           | 20                    | 91       | 70          | 130         |
| Toluene                               | 1   | 19.0296         | 0           | 20                    | 95       | 70          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 18.1352         | 0           | 20                    | 91       | 50          | 150         |
| Chlorobenzene                         | 1   | 18.9959         | 0           | 20                    | 95       | 65          | 135         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73460

|                             |   |         |   |     |     |    |     |
|-----------------------------|---|---------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 17.9461 | 0 | 20  | 90  | 10 | 140 |
| n-Amyl acetate              | 1 | 21.0158 | 0 | 20  | 105 | 20 | 150 |
| Bromoform                   | 1 | 17.4221 | 0 | 20  | 87  | 70 | 130 |
| Ethylbenzene                | 1 | 19.6034 | 0 | 20  | 98  | 60 | 140 |
| 1,1,2,2-Tetrachloroethane   | 1 | 21.5902 | 0 | 20  | 108 | 60 | 140 |
| Styrene                     | 1 | 18.8024 | 0 | 20  | 94  | 40 | 150 |
| m&p-Xylenes                 | 1 | 39.03   | 0 | 40  | 98  | 40 | 150 |
| o-Xylene                    | 1 | 19.3309 | 0 | 20  | 97  | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 24.2906 | 0 | 20  | 121 | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 18.5593 | 0 | 20  | 93  | 70 | 130 |
| 1,4-Dichlorobenzene         | 1 | 17.7441 | 0 | 20  | 89  | 65 | 135 |
| 1,2-Dichlorobenzene         | 1 | 17.548  | 0 | 20  | 88  | 65 | 135 |
| Isopropylbenzene            | 1 | 18.9719 | 0 | 20  | 95  | 40 | 150 |
| Cyclohexanone               | 1 | 45.0017 | 0 | 100 | 45  | 1  | 300 |
| Camphene                    | 1 | 17.8494 | 0 | 20  | 89  | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 20.8331 | 0 | 20  | 104 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 19.1289 | 0 | 20  | 96  | 40 | 150 |
| p-Ethyltoluene              | 1 | 19.2807 | 0 | 20  | 96  | 10 | 200 |
| 4-Chlorotoluene             | 1 | 19.1916 | 0 | 20  | 96  | 40 | 150 |
| n-Propylbenzene             | 1 | 20.6393 | 0 | 20  | 103 | 40 | 150 |
| Bromobenzene                | 1 | 20.0739 | 0 | 20  | 100 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 18.0373 | 0 | 20  | 90  | 40 | 150 |
| Butyl methacrylate          | 1 | 21.1167 | 0 | 20  | 106 | 20 | 150 |
| t-Butylbenzene              | 1 | 17.7966 | 0 | 20  | 89  | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 17.8416 | 0 | 20  | 89  | 40 | 150 |
| sec-Butylbenzene            | 1 | 18.6933 | 0 | 20  | 93  | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 17.4369 | 0 | 20  | 87  | 40 | 150 |
| n-Butylbenzene              | 1 | 18.9064 | 0 | 20  | 95  | 30 | 160 |
| p-Diethylbenzene            | 1 | 16.5789 | 0 | 20  | 83  | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 14.7253 | 0 | 20  | 74  | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 15.7481 | 0 | 20  | 79  | 10 | 150 |
| Camphor                     | 1 | 63.802  | 0 | 200 | 32  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 11.9412 | 0 | 20  | 60  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 7.275   | 0 | 20  | 36  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 4.7807  | 0 | 20  | 24  | 5  | 180 |
| Naphthalene                 | 1 | 3.4161  | 0 | 20  | 17  | 1  | 200 |

Form3  
Recovery Data Laboratory Limits  
QC Batch: MBS73545

8101509 0128

| Data File                             |     | Sample ID:   |             | Analysis Date        |          |             |             |
|---------------------------------------|-----|--------------|-------------|----------------------|----------|-------------|-------------|
| Spike or Dup: 1M113022.D              |     | MBS73545     |             | 11/1/2018 2:18:00 AM |          |             |             |
| Non Spike(If applicable):             |     |              |             |                      |          |             |             |
| Inst Blank(If applicable):            |     |              |             |                      |          |             |             |
| Method: 8260C                         |     | Matrix: Soil |             | QC Type: MBS         |          |             |             |
| Analyte:                              | Col | Spike Conc   | Sample Conc | Expected Conc        | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 61.8368      | 0           | 50                   | 124      | 20          | 130         |
| Dichlorodifluoromethane               | 1   | 67.2623      | 0           | 50                   | 135 *    | 20          | 130         |
| Chloromethane                         | 1   | 47.9983      | 0           | 50                   | 96       | 20          | 130         |
| Bromomethane                          | 1   | 49.2973      | 0           | 50                   | 99       | 20          | 130         |
| Vinyl Chloride                        | 1   | 50.9512      | 0           | 50                   | 102      | 20          | 130         |
| Chloroethane                          | 1   | 51.4537      | 0           | 50                   | 103      | 20          | 130         |
| Trichlorofluoromethane                | 1   | 53.8391      | 0           | 50                   | 108      | 20          | 130         |
| Ethyl ether                           | 1   | 40.3932      | 0           | 50                   | 81       | 50          | 130         |
| Furan                                 | 1   | 40.1771      | 0           | 50                   | 80       | 50          | 130         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 67.4019      | 0           | 50                   | 135 *    | 50          | 130         |
| Methylene Chloride                    | 1   | 42.7202      | 0           | 50                   | 85       | 50          | 130         |
| Acrolein                              | 1   | 169.6309     | 0           | 200                  | 85       | 20          | 130         |
| Acrylonitrile                         | 1   | 23.9987      | 0           | 50                   | 48       | 20          | 130         |
| Iodomethane                           | 1   | 37.351       | 0           | 50                   | 75       | 50          | 130         |
| Acetone                               | 1   | 189.1907     | 0           | 200                  | 95       | 20          | 130         |
| Carbon Disulfide                      | 1   | 56.2833      | 0           | 50                   | 113      | 50          | 130         |
| t-Butyl Alcohol                       | 1   | 205.4031     | 0           | 200                  | 103      | 20          | 130         |
| n-Hexane                              | 1   | 70.7452      | 0           | 50                   | 141 *    | 50          | 130         |
| Di-isopropyl-ether                    | 1   | 40.3024      | 0           | 50                   | 81       | 50          | 130         |
| 1,1-Dichloroethene                    | 1   | 50.5312      | 0           | 50                   | 101      | 50          | 130         |
| Methyl Acetate                        | 1   | 36.2195      | 0           | 50                   | 72       | 50          | 130         |
| Methyl-t-butyl ether                  | 1   | 35.8078      | 0           | 50                   | 72       | 50          | 130         |
| 1,1-Dichloroethane                    | 1   | 50.7251      | 0           | 50                   | 101      | 50          | 130         |
| trans-1,2-Dichloroethene              | 1   | 57.6547      | 0           | 50                   | 115      | 50          | 130         |
| Ethyl-t-butyl ether                   | 1   | 39.6951      | 0           | 50                   | 79       | 50          | 130         |
| cis-1,2-Dichloroethene                | 1   | 56.4578      | 0           | 50                   | 113      | 50          | 130         |
| Bromochloromethane                    | 1   | 51.592       | 0           | 50                   | 103      | 50          | 130         |
| 2,2-Dichloropropane                   | 1   | 60.0723      | 0           | 50                   | 120      | 50          | 130         |
| Ethyl acetate                         | 1   | 59.8216      | 0           | 50                   | 120      | 50          | 130         |
| 1,4-Dioxane                           | 1   | 1821.434     | 0           | 2500                 | 73       | 50          | 130         |
| 1,1-Dichloropropene                   | 1   | 58.9119      | 0           | 50                   | 118      | 50          | 130         |
| Chloroform                            | 1   | 40.5911      | 0           | 50                   | 81       | 50          | 130         |
| Cyclohexane                           | 1   | 66.5042      | 0           | 50                   | 133 *    | 50          | 130         |
| 1,2-Dichloroethane                    | 1   | 41.1923      | 0           | 50                   | 82       | 50          | 130         |
| 2-Butanone                            | 1   | 71.7303      | 0           | 50                   | 143 *    | 20          | 130         |
| 1,1,1-Trichloroethane                 | 1   | 54.111       | 0           | 50                   | 108      | 50          | 130         |
| Carbon Tetrachloride                  | 1   | 56.4327      | 0           | 50                   | 113      | 50          | 130         |
| Vinyl Acetate                         | 1   | 35.3284      | 0           | 50                   | 71       | 50          | 130         |
| Bromodichloromethane                  | 1   | 39.244       | 0           | 50                   | 78       | 50          | 130         |
| Methylcyclohexane                     | 1   | 96.5015      | 0           | 50                   | 193 *    | 50          | 130         |
| Dibromomethane                        | 1   | 38.7685      | 0           | 50                   | 78       | 50          | 130         |
| 1,2-Dichloropropane                   | 1   | 34.1834      | 0           | 50                   | 68       | 50          | 130         |
| Trichloroethene                       | 1   | 43.8927      | 0           | 50                   | 88       | 50          | 130         |
| Benzene                               | 1   | 51.7119      | 0           | 50                   | 103      | 50          | 130         |
| tert-Amyl methyl ether                | 1   | 41.0671      | 0           | 50                   | 82       | 50          | 130         |
| Iso-propylacetate                     | 1   | 25.2035      | 0           | 50                   | 50       | 50          | 130         |
| Methyl methacrylate                   | 1   | 42.5502      | 0           | 50                   | 85       | 50          | 130         |
| Dibromochloromethane                  | 1   | 36.599       | 0           | 50                   | 73       | 50          | 130         |
| 2-Chloroethylvinylether               | 1   | 24.3094      | 0           | 50                   | 49 *     | 50          | 130         |
| cis-1,3-Dichloropropene               | 1   | 28.2486      | 0           | 50                   | 56       | 50          | 130         |
| trans-1,3-Dichloropropene             | 1   | 39.2775      | 0           | 50                   | 79       | 50          | 130         |
| Ethyl methacrylate                    | 1   | 34.5199      | 0           | 50                   | 69       | 50          | 130         |
| 1,1,2-Trichloroethane                 | 1   | 33.3359      | 0           | 50                   | 67       | 50          | 130         |
| 1,2-Dibromoethane                     | 1   | 43.9305      | 0           | 50                   | 88       | 50          | 130         |
| 1,3-Dichloropropane                   | 1   | 37.6699      | 0           | 50                   | 75       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 23.8969      | 0           | 50                   | 48       | 20          | 130         |
| 2-Hexanone                            | 1   | 30.2287      | 0           | 50                   | 60       | 20          | 130         |
| Tetrachloroethene                     | 1   | 52.1368      | 0           | 50                   | 104      | 50          | 130         |
| Toluene                               | 1   | 39.6372      | 0           | 50                   | 79       | 50          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 42.1823      | 0           | 50                   | 84       | 50          | 130         |
| Chlorobenzene                         | 1   | 45.9684      | 0           | 50                   | 92       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73545

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 34.3202  | 0 | 50  | 69  | 50 | 130 |
| n-Amyl acetate              | 1 | 29.4872  | 0 | 50  | 59  | 50 | 130 |
| Bromoform                   | 1 | 32.5245  | 0 | 50  | 65  | 20 | 130 |
| Ethylbenzene                | 1 | 61.72    | 0 | 50  | 123 | 50 | 130 |
| 1,1,2,2-Tetrachloroethane   | 1 | 30.4281  | 0 | 50  | 61  | 50 | 130 |
| Styrene                     | 1 | 45.5939  | 0 | 50  | 91  | 50 | 130 |
| m&p-Xylenes                 | 1 | 99.5153  | 0 | 100 | 100 | 50 | 130 |
| o-Xylene                    | 1 | 43.9568  | 0 | 50  | 88  | 50 | 130 |
| trans-1,4-Dichloro-2-butene | 1 | 56.6513  | 0 | 50  | 113 | 20 | 130 |
| 1,3-Dichlorobenzene         | 1 | 44.7621  | 0 | 50  | 90  | 50 | 130 |
| 1,4-Dichlorobenzene         | 1 | 42.4402  | 0 | 50  | 85  | 50 | 130 |
| 1,2-Dichlorobenzene         | 1 | 40.1438  | 0 | 50  | 80  | 50 | 130 |
| Isopropylbenzene            | 1 | 49.6204  | 0 | 50  | 99  | 50 | 130 |
| Cyclohexanone               | 1 | 225.7135 | 0 | 250 | 90  | 50 | 130 |
| Camphene                    | 1 | 63.0077  | 0 | 50  | 126 | 50 | 130 |
| 1,2,3-Trichloropropane      | 1 | 41.7146  | 0 | 50  | 83  | 50 | 130 |
| 2-Chlorotoluene             | 1 | 47.4228  | 0 | 50  | 95  | 50 | 130 |
| p-Ethyltoluene              | 1 | 51.8977  | 0 | 50  | 104 | 50 | 130 |
| 4-Chlorotoluene             | 1 | 47.9894  | 0 | 50  | 96  | 50 | 130 |
| n-Propylbenzene             | 1 | 51.2521  | 0 | 50  | 103 | 50 | 130 |
| Bromobenzene                | 1 | 35.3572  | 0 | 50  | 71  | 50 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 39.5789  | 0 | 50  | 79  | 50 | 130 |
| Butyl methacrylate          | 1 | 42.5759  | 0 | 50  | 85  | 50 | 130 |
| t-Butylbenzene              | 1 | 42.1069  | 0 | 50  | 84  | 50 | 130 |
| 1,2,4-Trimethylbenzene      | 1 | 47.9455  | 0 | 50  | 96  | 50 | 130 |
| sec-Butylbenzene            | 1 | 54.843   | 0 | 50  | 110 | 50 | 130 |
| 4-Isopropyltoluene          | 1 | 44.8044  | 0 | 50  | 90  | 50 | 130 |
| n-Butylbenzene              | 1 | 47.0014  | 0 | 50  | 94  | 50 | 130 |
| p-Diethylbenzene            | 1 | 61.1512  | 0 | 50  | 122 | 50 | 130 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 54.1683  | 0 | 50  | 108 | 50 | 130 |
| 1,2-Dibromo-3-Chloropropane | 1 | 32.5856  | 0 | 50  | 65  | 50 | 130 |
| Camphor                     | 1 | 316.8775 | 0 | 500 | 63  | 50 | 130 |
| Hexachlorobutadiene         | 1 | 51.9782  | 0 | 50  | 104 | 50 | 130 |
| 1,2,4-Trichlorobenzene      | 1 | 48.4227  | 0 | 50  | 97  | 50 | 130 |
| 1,2,3-Trichlorobenzene      | 1 | 40.6626  | 0 | 50  | 81  | 50 | 130 |
| Naphthalene                 | 1 | 33.0145  | 0 | 50  | 66  | 50 | 130 |

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73432**

8101509 0130

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138682.D              |     | AD07030-002(MS) |             | 10/22/2018 8:28:00 AM |          |             |             |
| Non Spike(If applicable): 3M138624.D  |     | AD07030-002     |             | 10/21/2018 3:52:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MS           |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 21.7001         | 0           | 20                    | 109      | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 36.5888         | 0           | 20                    | 183      | 1           | 300         |
| Chloromethane                         | 1   | 31.7048         | 0           | 20                    | 159      | 1           | 273         |
| Bromomethane                          | 1   | 27.6127         | 0           | 20                    | 138      | 1           | 242         |
| Vinyl Chloride                        | 1   | 22.2478         | 0           | 20                    | 111      | 1           | 251         |
| Chloroethane                          | 1   | 21.3691         | 0           | 20                    | 107      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 21.1797         | 0           | 20                    | 106      | 17          | 181         |
| Ethyl ether                           | 1   | 15.1902         | 0           | 20                    | 76       | 30          | 150         |
| Furan                                 | 1   | 16.4746         | 0           | 20                    | 82       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 26.075          | 0           | 20                    | 130      | 40          | 170         |
| Methylene Chloride                    | 1   | 23.1411         | 0           | 20                    | 116      | 1           | 221         |
| Acrolein                              | 1   | 95.283          | 0           | 100                   | 95       | 40          | 160         |
| Acrylonitrile                         | 1   | 20.584          | 0           | 20                    | 103      | 40          | 160         |
| Iodomethane                           | 1   | 19.2955         | 0           | 20                    | 96       | 1           | 200         |
| Acetone                               | 1   | 90.676          | 0           | 100                   | 91       | 20          | 160         |
| Carbon Disulfide                      | 1   | 18.7592         | 0           | 20                    | 94       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 73.0867         | 0           | 100                   | 73       | 1           | 200         |
| n-Hexane                              | 1   | 20.3637         | 0           | 20                    | 102      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 19.3985         | 0           | 20                    | 97       | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 19.818          | 0           | 20                    | 99       | 1           | 234         |
| Methyl Acetate                        | 1   | 16.5249         | 0           | 20                    | 83       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 19.43           | 0           | 20                    | 97       | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 18.2479         | 0           | 20                    | 91       | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 20.1932         | 0           | 20                    | 101      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 18.486          | 0           | 20                    | 92       | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 20.1009         | 0           | 20                    | 101      | 40          | 160         |
| Bromochloromethane                    | 1   | 21.2841         | 0           | 20                    | 106      | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 21.8312         | 0           | 20                    | 109      | 10          | 200         |
| Ethyl acetate                         | 1   | 17.6125         | 0           | 20                    | 88       | 20          | 170         |
| 1,4-Dioxane                           | 1   | 920.3462        | 0           | 1000                  | 92       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 20.6233         | 0           | 20                    | 103      | 50          | 150         |
| Chloroform                            | 1   | 18.2767         | 0           | 20                    | 91       | 51          | 138         |
| Cyclohexane                           | 1   | 21.1754         | 0           | 20                    | 106      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 21.9282         | 0           | 20                    | 110      | 49          | 155         |
| 2-Butanone                            | 1   | 18.6729         | 0           | 20                    | 93       | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 18.7564         | 0           | 20                    | 94       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 20.0809         | 0           | 20                    | 100      | 70          | 140         |
| Vinyl Acetate                         | 1   | 18.8829         | 0           | 20                    | 94       | 20          | 170         |
| Bromodichloromethane                  | 1   | 19.1149         | 0           | 20                    | 96       | 35          | 155         |
| Methylcyclohexane                     | 1   | 21.957          | 0           | 20                    | 110      | 30          | 170         |
| Dibromomethane                        | 1   | 22.3512         | 0           | 20                    | 112      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 17.0674         | 0           | 20                    | 85       | 1           | 210         |
| Trichloroethene                       | 1   | 20.4714         | 0           | 20                    | 102      | 70          | 157         |
| Benzene                               | 1   | 22.8883         | 0           | 20                    | 114      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 18.6339         | 0           | 20                    | 93       | 30          | 150         |
| Iso-propylacetate                     | 1   | 15.4928         | 0           | 20                    | 77       | 20          | 150         |
| Methyl methacrylate                   | 1   | 14.799          | 0           | 20                    | 74       | 10          | 170         |
| Dibromochloromethane                  | 1   | 15.4179         | 0           | 20                    | 77       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0               | 0           | 20                    | 0*       | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 15.8259         | 0           | 20                    | 79       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 15.3584         | 0           | 20                    | 77       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 16.0699         | 0           | 20                    | 80       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 20.1697         | 0           | 20                    | 101      | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 15.8243         | 0           | 20                    | 79       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 18.8907         | 0           | 20                    | 94       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 14.0746         | 0           | 20                    | 70       | 30          | 150         |
| 2-Hexanone                            | 1   | 15.4675         | 0           | 20                    | 77       | 20          | 150         |
| Tetrachloroethene                     | 1   | 21.078          | 1.1243      | 20                    | 100      | 64          | 148         |
| Toluene                               | 1   | 17.4925         | 0           | 20                    | 87       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 19.1452         | 0           | 20                    | 96       | 50          | 150         |
| Chlorobenzene                         | 1   | 16.858          | 0           | 20                    | 84       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73432

|                             |   |          |   |     |    |    |     |
|-----------------------------|---|----------|---|-----|----|----|-----|
| n-Butyl acrylate            | 1 | 15.672   | 0 | 20  | 78 | 10 | 140 |
| n-Amyl acetate              | 1 | 16.1295  | 0 | 20  | 81 | 20 | 150 |
| Bromoform                   | 1 | 13.9239  | 0 | 20  | 70 | 45 | 169 |
| Ethylbenzene                | 1 | 15.9317  | 0 | 20  | 80 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 15.2259  | 0 | 20  | 76 | 46 | 157 |
| Styrene                     | 1 | 18.1579  | 0 | 20  | 91 | 40 | 150 |
| m&p-Xylenes                 | 1 | 35.6884  | 0 | 40  | 89 | 40 | 150 |
| o-Xylene                    | 1 | 17.737   | 0 | 20  | 89 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 14.8377  | 0 | 20  | 74 | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 16.421   | 0 | 20  | 82 | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 15.8136  | 0 | 20  | 79 | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 15.7412  | 0 | 20  | 79 | 18 | 190 |
| Isopropylbenzene            | 1 | 17.6319  | 0 | 20  | 88 | 40 | 150 |
| Cyclohexanone               | 1 | 62.7358  | 0 | 100 | 63 | 1  | 300 |
| Camphene                    | 1 | 12.5038  | 0 | 20  | 63 | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 15.3984  | 0 | 20  | 77 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 19.0238  | 0 | 20  | 95 | 40 | 150 |
| p-Ethyltoluene              | 1 | 16.8046  | 0 | 20  | 84 | 10 | 200 |
| 4-Chlorotoluene             | 1 | 17.096   | 0 | 20  | 85 | 40 | 150 |
| n-Propylbenzene             | 1 | 17.4713  | 0 | 20  | 87 | 40 | 150 |
| Bromobenzene                | 1 | 15.1344  | 0 | 20  | 76 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 19.3257  | 0 | 20  | 97 | 40 | 150 |
| Butyl methacrylate          | 1 | 18.5548  | 0 | 20  | 93 | 20 | 150 |
| t-Butylbenzene              | 1 | 17.7992  | 0 | 20  | 89 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 17.2799  | 0 | 20  | 86 | 40 | 150 |
| sec-Butylbenzene            | 1 | 17.0035  | 0 | 20  | 85 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 17.3786  | 0 | 20  | 87 | 40 | 150 |
| n-Butylbenzene              | 1 | 18.08    | 0 | 20  | 90 | 30 | 160 |
| p-Diethylbenzene            | 1 | 17.7742  | 0 | 20  | 89 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 17.9503  | 0 | 20  | 90 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 14.9357  | 0 | 20  | 75 | 10 | 150 |
| Camphor                     | 1 | 123.5885 | 0 | 200 | 62 | 1  | 160 |
| Hexachlorobutadiene         | 1 | 18.8773  | 0 | 20  | 94 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 16.4892  | 0 | 20  | 82 | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 15.8954  | 0 | 20  | 79 | 5  | 180 |
| Naphthalene                 | 1 | 16.7538  | 0 | 20  | 84 | 1  | 200 |

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73432**

**8101509 0132**

| Data File                             |     | Sample ID:       |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138683.D              |     | AD07030-002(MSD) |             | 10/22/2018 8:45:00 AM |          |             |             |
| Non Spike(If applicable): 3M138624.D  |     | AD07030-002      |             | 10/21/2018 3:52:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                  |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous  |             | QC Type: MSD          |          |             |             |
| Analyte:                              | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 21.5835          | 0           | 20                    | 108      | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 34.4834          | 0           | 20                    | 172      | 1           | 300         |
| Chloromethane                         | 1   | 29.8757          | 0           | 20                    | 149      | 1           | 273         |
| Bromomethane                          | 1   | 25.5331          | 0           | 20                    | 128      | 1           | 242         |
| Vinyl Chloride                        | 1   | 22.9307          | 0           | 20                    | 115      | 1           | 251         |
| Chloroethane                          | 1   | 27.4045          | 0           | 20                    | 137      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 21.9963          | 0           | 20                    | 110      | 17          | 181         |
| Ethyl ether                           | 1   | 16.6171          | 0           | 20                    | 83       | 30          | 150         |
| Furan                                 | 1   | 16.4991          | 0           | 20                    | 82       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 27.3344          | 0           | 20                    | 137      | 40          | 170         |
| Methylene Chloride                    | 1   | 22.1217          | 0           | 20                    | 111      | 1           | 221         |
| Acrolein                              | 1   | 86.6064          | 0           | 100                   | 87       | 40          | 160         |
| Acrylonitrile                         | 1   | 16.9754          | 0           | 20                    | 85       | 40          | 160         |
| Iodomethane                           | 1   | 19.3345          | 0           | 20                    | 97       | 1           | 200         |
| Acetone                               | 1   | 84.9664          | 0           | 100                   | 85       | 20          | 160         |
| Carbon Disulfide                      | 1   | 19.1349          | 0           | 20                    | 96       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 66.7486          | 0           | 100                   | 67       | 1           | 200         |
| n-Hexane                              | 1   | 21.8275          | 0           | 20                    | 109      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 19.0413          | 0           | 20                    | 95       | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 19.9243          | 0           | 20                    | 100      | 1           | 234         |
| Methyl Acetate                        | 1   | 16.6473          | 0           | 20                    | 83       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 18.8858          | 0           | 20                    | 94       | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 16.5815          | 0           | 20                    | 83       | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 20.7762          | 0           | 20                    | 104      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 18.9686          | 0           | 20                    | 95       | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 19.6563          | 0           | 20                    | 98       | 40          | 160         |
| Bromochloromethane                    | 1   | 16.147           | 0           | 20                    | 81       | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 21.8861          | 0           | 20                    | 109      | 10          | 200         |
| Ethyl acetate                         | 1   | 18.1085          | 0           | 20                    | 91       | 20          | 170         |
| 1,4-Dioxane                           | 1   | 821.7487         | 0           | 1000                  | 82       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 20.6746          | 0           | 20                    | 103      | 50          | 150         |
| Chloroform                            | 1   | 17.4275          | 0           | 20                    | 87       | 51          | 138         |
| Cyclohexane                           | 1   | 21.2838          | 0           | 20                    | 106      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 21.8609          | 0           | 20                    | 109      | 49          | 155         |
| 2-Butanone                            | 1   | 18.8923          | 0           | 20                    | 94       | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 18.5692          | 0           | 20                    | 93       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 21.4809          | 0           | 20                    | 107      | 70          | 140         |
| Vinyl Acetate                         | 1   | 19.3713          | 0           | 20                    | 97       | 20          | 170         |
| Bromodichloromethane                  | 1   | 18.8054          | 0           | 20                    | 94       | 35          | 155         |
| Methylcyclohexane                     | 1   | 21.8143          | 0           | 20                    | 109      | 30          | 170         |
| Dibromomethane                        | 1   | 22.0238          | 0           | 20                    | 110      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 18.4544          | 0           | 20                    | 92       | 1           | 210         |
| Trichloroethene                       | 1   | 19.3056          | 0           | 20                    | 97       | 70          | 157         |
| Benzene                               | 1   | 21.9831          | 0           | 20                    | 110      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 17.6453          | 0           | 20                    | 88       | 30          | 150         |
| Iso-propylacetate                     | 1   | 15.7324          | 0           | 20                    | 79       | 20          | 150         |
| Methyl methacrylate                   | 1   | 15.1768          | 0           | 20                    | 76       | 10          | 170         |
| Dibromochloromethane                  | 1   | 15.5213          | 0           | 20                    | 78       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0                | 0           | 20                    | 0*       | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 14.8293          | 0           | 20                    | 74       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 15.5899          | 0           | 20                    | 78       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 16.0267          | 0           | 20                    | 80       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 19.215           | 0           | 20                    | 96       | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 15.8306          | 0           | 20                    | 79       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 18.67            | 0           | 20                    | 93       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 14.7915          | 0           | 20                    | 74       | 30          | 150         |
| 2-Hexanone                            | 1   | 15.5546          | 0           | 20                    | 78       | 20          | 150         |
| Tetrachloroethene                     | 1   | 22.1214          | 1.1243      | 20                    | 105      | 64          | 148         |
| Toluene                               | 1   | 16.8072          | 0           | 20                    | 84       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 20.0658          | 0           | 20                    | 100      | 50          | 150         |
| Chlorobenzene                         | 1   | 16.6006          | 0           | 20                    | 83       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73432

|                             |   |          |   |     |    |    |     |
|-----------------------------|---|----------|---|-----|----|----|-----|
| n-Butyl acrylate            | 1 | 14.6795  | 0 | 20  | 73 | 10 | 140 |
| n-Amyl acetate              | 1 | 15.4999  | 0 | 20  | 77 | 20 | 150 |
| Bromoform                   | 1 | 13.3499  | 0 | 20  | 67 | 45 | 169 |
| Ethylbenzene                | 1 | 15.6742  | 0 | 20  | 78 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 14.6669  | 0 | 20  | 73 | 46 | 157 |
| Styrene                     | 1 | 17.5093  | 0 | 20  | 88 | 40 | 150 |
| m&p-Xylenes                 | 1 | 34.9319  | 0 | 40  | 87 | 40 | 150 |
| o-Xylene                    | 1 | 18.5549  | 0 | 20  | 93 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 15.9246  | 0 | 20  | 80 | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 15.9499  | 0 | 20  | 80 | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 15.5712  | 0 | 20  | 78 | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 15.8023  | 0 | 20  | 79 | 18 | 190 |
| Isopropylbenzene            | 1 | 17.7384  | 0 | 20  | 89 | 40 | 150 |
| Cyclohexanone               | 1 | 45.8472  | 0 | 100 | 46 | 1  | 300 |
| Camphene                    | 1 | 10.3571  | 0 | 20  | 52 | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 15.6476  | 0 | 20  | 78 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 18.0969  | 0 | 20  | 90 | 40 | 150 |
| p-Ethyltoluene              | 1 | 16.4465  | 0 | 20  | 82 | 10 | 200 |
| 4-Chlorotoluene             | 1 | 17.0134  | 0 | 20  | 85 | 40 | 150 |
| n-Propylbenzene             | 1 | 17.1433  | 0 | 20  | 86 | 40 | 150 |
| Bromobenzene                | 1 | 15.2333  | 0 | 20  | 76 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 19.364   | 0 | 20  | 97 | 40 | 150 |
| Butyl methacrylate          | 1 | 17.5994  | 0 | 20  | 88 | 20 | 150 |
| t-Butylbenzene              | 1 | 17.3215  | 0 | 20  | 87 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 17.4427  | 0 | 20  | 87 | 40 | 150 |
| sec-Butylbenzene            | 1 | 16.989   | 0 | 20  | 85 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 17.8161  | 0 | 20  | 89 | 40 | 150 |
| n-Butylbenzene              | 1 | 17.4949  | 0 | 20  | 87 | 30 | 160 |
| p-Diethylbenzene            | 1 | 17.1785  | 0 | 20  | 86 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 17.7183  | 0 | 20  | 89 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 16.1921  | 0 | 20  | 81 | 10 | 150 |
| Camphor                     | 1 | 131.4018 | 0 | 200 | 66 | 1  | 160 |
| Hexachlorobutadiene         | 1 | 19.6606  | 0 | 20  | 98 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 16.6037  | 0 | 20  | 83 | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 15.5128  | 0 | 20  | 78 | 5  | 180 |
| Naphthalene                 | 1 | 16.515   | 0 | 20  | 83 | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



# Form3

## RPD Data Laboratory Limits

QC Batch: MBS73432

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 3M138683.D             | AD07030-002(MSD) | 10/22/2018 8:45:00 AM |
| Duplicate(If applicable): 3M138682.D | AD07030-002(MS)  | 10/22/2018 8:28:00 AM |
| Inst Blank(If applicable):           |                  |                       |
| Method: 624.1                        | Matrix: Aqueous  | QC Type: MSD          |

| Analyte:                              | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBSD<br>Conc | RPD  | Limit |
|---------------------------------------|--------|----------------------|------------------------|------|-------|
| Chlorodifluoromethane                 | 1      | 21.5835              | 21.7001                | 0.54 | 40    |
| Dichlorodifluoromethane               | 1      | 34.4834              | 36.5888                | 5.9  | 40    |
| Chloromethane                         | 1      | 29.8757              | 31.7048                | 5.9  | 60    |
| Bromomethane                          | 1      | 25.5331              | 27.6127                | 7.8  | 61    |
| Vinyl Chloride                        | 1      | 22.9307              | 22.2478                | 3    | 66    |
| Chloroethane                          | 1      | 27.4045              | 21.3691                | 25   | 78    |
| Trichlorofluoromethane                | 1      | 21.9963              | 21.1797                | 3.8  | 84    |
| Ethyl ether                           | 1      | 16.6171              | 15.1902                | 9    | 40    |
| Furan                                 | 1      | 16.4991              | 16.4746                | 0.15 | 40    |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1      | 27.3344              | 26.075                 | 4.7  | 40    |
| Methylene Chloride                    | 1      | 22.1217              | 23.1411                | 4.5  | 28    |
| Acrolein                              | 1      | 86.6064              | 95.283                 | 9.5  | 60    |
| Acrylonitrile                         | 1      | 16.9754              | 20.584                 | 19   | 60    |
| Iodomethane                           | 1      | 19.3345              | 19.2955                | 0.2  | 40    |
| Acetone                               | 1      | 84.9664              | 90.676                 | 6.5  | 40    |
| Carbon Disulfide                      | 1      | 19.1349              | 18.7592                | 2    | 40    |
| t-Butyl Alcohol                       | 1      | 66.7486              | 73.0867                | 9.1  | 40    |
| n-Hexane                              | 1      | 21.8275              | 20.3637                | 6.9  | 40    |
| Di-isopropyl-ether                    | 1      | 19.0413              | 19.3985                | 1.9  | 40    |
| 1,1-Dichloroethene                    | 1      | 19.9243              | 19.818                 | 0.53 | 32    |
| Methyl Acetate                        | 1      | 16.6473              | 16.5249                | 0.74 | 40    |
| Methyl-t-butyl ether                  | 1      | 18.8858              | 19.43                  | 2.8  | 40    |
| 1,1-Dichloroethane                    | 1      | 16.5815              | 18.2479                | 9.6  | 40    |
| trans-1,2-Dichloroethene              | 1      | 20.7762              | 20.1932                | 2.8  | 45    |
| Ethyl-t-butyl ether                   | 1      | 18.9686              | 18.486                 | 2.6  | 40    |
| cis-1,2-Dichloroethene                | 1      | 19.6563              | 20.1009                | 2.2  | 40    |
| Bromochloromethane                    | 1      | 16.147               | 21.2841                | 27   | 40    |
| 2,2-Dichloropropane                   | 1      | 21.8861              | 21.8312                | 0.25 | 40    |
| Ethyl acetate                         | 1      | 18.1085              | 17.6125                | 2.8  | 40    |
| 1,4-Dioxane                           | 1      | 821.7487             | 920.3462               | 11   | 40    |
| 1,1-Dichloropropene                   | 1      | 20.6746              | 20.6233                | 0.25 | 40    |
| Chloroform                            | 1      | 17.4275              | 18.2767                | 4.8  | 54    |
| Cyclohexane                           | 1      | 21.2838              | 21.1754                | 0.51 | 40    |
| 1,2-Dichloroethane                    | 1      | 21.8609              | 21.9282                | 0.31 | 49    |
| 2-Butanone                            | 1      | 18.8923              | 18.6729                | 1.2  | 40    |
| 1,1,1-Trichloroethane                 | 1      | 18.5692              | 18.7564                | 1    | 36    |
| Carbon Tetrachloride                  | 1      | 21.4809              | 20.0809                | 6.7  | 41    |
| Vinyl Acetate                         | 1      | 19.3713              | 18.8829                | 2.6  | 40    |
| Bromodichloromethane                  | 1      | 18.8054              | 19.1149                | 1.6  | 56    |
| Methylcyclohexane                     | 1      | 21.8143              | 21.957                 | 0.65 | 40    |
| Dibromomethane                        | 1      | 22.0238              | 22.3512                | 1.5  | 40    |
| 1,2-Dichloropropane                   | 1      | 18.4544              | 17.0674                | 7.8  | 55    |
| Trichloroethene                       | 1      | 19.3056              | 20.4714                | 5.9  | 48    |
| Benzene                               | 1      | 21.9831              | 22.8883                | 4    | 61    |
| tert-Amyl methyl ether                | 1      | 17.6453              | 18.6339                | 5.4  | 40    |
| Iso-propylacetate                     | 1      | 15.7324              | 15.4928                | 1.5  | 40    |
| Methyl methacrylate                   | 1      | 15.1768              | 14.799                 | 2.5  | 40    |
| Dibromochloromethane                  | 1      | 15.5213              | 15.4179                | 0.67 | 50    |
| 2-Chloroethylvinylether               | 1      | 0                    | 0                      | NA   | 71    |
| cis-1,3-Dichloropropene               | 1      | 14.8293              | 15.8259                | 6.5  | 58    |
| trans-1,3-Dichloropropene             | 1      | 15.5899              | 15.3584                | 1.5  | 56    |
| Ethyl methacrylate                    | 1      | 16.0267              | 16.0699                | 0.27 | 40    |
| 1,1,2-Trichloroethane                 | 1      | 19.215               | 20.1697                | 4.8  | 45    |
| 1,2-Dibromoethane                     | 1      | 15.8306              | 15.8243                | 0.04 | 40    |
| 1,3-Dichloropropane                   | 1      | 18.67                | 18.8907                | 1.2  | 40    |
| 4-Methyl-2-Pentanone                  | 1      | 14.7915              | 14.0746                | 5    | 40    |
| 2-Hexanone                            | 1      | 15.5546              | 15.4675                | 0.56 | 40    |
| Tetrachloroethene                     | 1      | 22.1214              | 21.078                 | 4.8  | 39    |
| Toluene                               | 1      | 16.8072              | 17.4925                | 4    | 41    |
| 1,1,1,2-Tetrachloroethane             | 1      | 20.0658              | 19.1452                | 4.7  | 40    |
| Chlorobenzene                         | 1      | 16.6006              | 16.858                 | 1.5  | 53    |
| n-Butyl acrylate                      | 1      | 14.6795              | 15.672                 | 6.5  | 40    |
| n-Amyl acetate                        | 1      | 15.4999              | 16.1295                | 4    | 40    |

**Form3**  
**RPD Data Laboratory Limits**

QC Batch: MBS73432

|                             |   |          |          |      |    |
|-----------------------------|---|----------|----------|------|----|
| Bromoform                   | 1 | 13.3499  | 13.9239  | 4.2  | 42 |
| Ethylbenzene                | 1 | 15.6742  | 15.9317  | 1.6  | 63 |
| 1,1,2,2-Tetrachloroethane   | 1 | 14.6669  | 15.2259  | 3.7  | 61 |
| Styrene                     | 1 | 17.5093  | 18.1579  | 3.6  | 40 |
| m&p-Xylenes                 | 1 | 34.9319  | 35.6884  | 2.1  | 40 |
| o-Xylene                    | 1 | 18.5549  | 17.737   | 4.5  | 40 |
| trans-1,4-Dichloro-2-butene | 1 | 15.9246  | 14.8377  | 7.1  | 40 |
| 1,3-Dichlorobenzene         | 1 | 15.9499  | 16.421   | 2.9  | 43 |
| 1,4-Dichlorobenzene         | 1 | 15.5712  | 15.8136  | 1.5  | 57 |
| 1,2-Dichlorobenzene         | 1 | 15.8023  | 15.7412  | 0.39 | 57 |
| Isopropylbenzene            | 1 | 17.7384  | 17.6319  | 0.6  | 40 |
| Cyclohexanone               | 1 | 45.8472  | 62.7358  | 31   | 40 |
| Camphene                    | 1 | 10.3571  | 12.5038  | 19   | 40 |
| 1,2,3-Trichloropropane      | 1 | 15.6476  | 15.3984  | 1.6  | 40 |
| 2-Chlorotoluene             | 1 | 18.0969  | 19.0238  | 5    | 40 |
| p-Ethyltoluene              | 1 | 16.4465  | 16.8046  | 2.2  | 40 |
| 4-Chlorotoluene             | 1 | 17.0134  | 17.096   | 0.48 | 40 |
| n-Propylbenzene             | 1 | 17.1433  | 17.4713  | 1.9  | 40 |
| Bromobenzene                | 1 | 15.2333  | 15.1344  | 0.65 | 40 |
| 1,3,5-Trimethylbenzene      | 1 | 19.364   | 19.3257  | 0.2  | 40 |
| Butyl methacrylate          | 1 | 17.5994  | 18.5548  | 5.3  | 40 |
| t-Butylbenzene              | 1 | 17.3215  | 17.7992  | 2.7  | 40 |
| 1,2,4-Trimethylbenzene      | 1 | 17.4427  | 17.2799  | 0.94 | 40 |
| sec-Butylbenzene            | 1 | 16.989   | 17.0035  | 0.09 | 40 |
| 4-Isopropyltoluene          | 1 | 17.8161  | 17.3786  | 2.5  | 40 |
| n-Butylbenzene              | 1 | 17.4949  | 18.08    | 3.3  | 40 |
| p-Diethylbenzene            | 1 | 17.1785  | 17.7742  | 3.4  | 40 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 17.7183  | 17.9503  | 1.3  | 40 |
| 1,2-Dibromo-3-Chloropropane | 1 | 16.1921  | 14.9357  | 8.1  | 40 |
| Camphor                     | 1 | 131.4018 | 123.5885 | 6.1  | 40 |
| Hexachlorobutadiene         | 1 | 19.6606  | 18.8773  | 4.1  | 40 |
| 1,2,4-Trichlorobenzene      | 1 | 16.6037  | 16.4892  | 0.69 | 40 |
| 1,2,3-Trichlorobenzene      | 1 | 15.5128  | 15.8954  | 2.4  | 40 |
| Naphthalene                 | 1 | 16.515   | 16.7538  | 1.4  | 40 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73436**

8101509 0136

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138707.D              |     | AD07037-005(MS) |             | 10/22/2018 3:38:00 PM |          |             |             |
| Non Spike(If applicable): 3M138703.D  |     | AD07037-005     |             | 10/22/2018 2:29:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MS           |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 29.0701         | 0           | 20                    | 145      | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 31.7561         | 0           | 20                    | 159      | 1           | 300         |
| Chloromethane                         | 1   | 30.7938         | 0           | 20                    | 154      | 1           | 273         |
| Bromomethane                          | 1   | 24.9501         | 0           | 20                    | 125      | 1           | 242         |
| Vinyl Chloride                        | 1   | 22.5683         | 0           | 20                    | 113      | 1           | 251         |
| Chloroethane                          | 1   | 27.1171         | 0           | 20                    | 136      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 21.5612         | 0           | 20                    | 108      | 17          | 181         |
| Ethyl ether                           | 1   | 15.7157         | 0           | 20                    | 79       | 30          | 150         |
| Furan                                 | 1   | 16.8533         | 0           | 20                    | 84       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 26.4475         | 0           | 20                    | 132      | 40          | 170         |
| Methylene Chloride                    | 1   | 23.5186         | 0           | 20                    | 118      | 1           | 221         |
| Acrolein                              | 1   | 93.006          | 0           | 100                   | 93       | 40          | 160         |
| Acrylonitrile                         | 1   | 19.9633         | 0           | 20                    | 100      | 40          | 160         |
| Iodomethane                           | 1   | 20.9093         | 0           | 20                    | 105      | 1           | 200         |
| Acetone                               | 1   | 87.4622         | 0           | 100                   | 87       | 20          | 160         |
| Carbon Disulfide                      | 1   | 20.0411         | 0           | 20                    | 100      | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 85.3034         | 0           | 100                   | 85       | 1           | 200         |
| n-Hexane                              | 1   | 23.3007         | 0           | 20                    | 117      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 21.4929         | 0           | 20                    | 107      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 21.6488         | 0           | 20                    | 108      | 1           | 234         |
| Methyl Acetate                        | 1   | 17.2731         | 0           | 20                    | 86       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 20.8137         | 0           | 20                    | 104      | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 19.2176         | 0           | 20                    | 96       | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 21.9093         | 0           | 20                    | 110      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 21.0785         | 0           | 20                    | 105      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 21.8606         | 0           | 20                    | 109      | 40          | 160         |
| Bromochloromethane                    | 1   | 17.8428         | 0           | 20                    | 89       | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 24.4291         | 0           | 20                    | 122      | 10          | 200         |
| Ethyl acetate                         | 1   | 18.2527         | 0           | 20                    | 91       | 20          | 170         |
| 1,4-Dioxane                           | 1   | 1090.066        | 0           | 1000                  | 109      | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 24.4997         | 0           | 20                    | 122      | 50          | 150         |
| Chloroform                            | 1   | 18.5632         | 0           | 20                    | 93       | 51          | 138         |
| Cyclohexane                           | 1   | 23.7553         | 0           | 20                    | 119      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 22.9763         | 0           | 20                    | 115      | 49          | 155         |
| 2-Butanone                            | 1   | 19.4506         | 0           | 20                    | 97       | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 19.7386         | 0           | 20                    | 99       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 21.2339         | 0           | 20                    | 106      | 70          | 140         |
| Vinyl Acetate                         | 1   | 19.6647         | 0           | 20                    | 98       | 20          | 170         |
| Bromodichloromethane                  | 1   | 20.1355         | 0           | 20                    | 101      | 35          | 155         |
| Methylcyclohexane                     | 1   | 26.102          | 0           | 20                    | 131      | 30          | 170         |
| Dibromomethane                        | 1   | 23.6617         | 0           | 20                    | 118      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 20.2169         | 0           | 20                    | 101      | 1           | 210         |
| Trichloroethene                       | 1   | 22.0328         | 0           | 20                    | 110      | 70          | 157         |
| Benzene                               | 1   | 24.1618         | 0           | 20                    | 121      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 20.0623         | 0           | 20                    | 100      | 30          | 150         |
| Iso-propylacetate                     | 1   | 17.3757         | 0           | 20                    | 87       | 20          | 150         |
| Methyl methacrylate                   | 1   | 17.1136         | 0           | 20                    | 86       | 10          | 170         |
| Dibromochloromethane                  | 1   | 15.9584         | 0           | 20                    | 80       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0               | 0           | 20                    | 0*       | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 16.6395         | 0           | 20                    | 83       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 16.3408         | 0           | 20                    | 82       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 16.2241         | 0           | 20                    | 81       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 19.8672         | 0           | 20                    | 99       | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 16.3916         | 0           | 20                    | 82       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 20.0247         | 0           | 20                    | 100      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 16.4824         | 0           | 20                    | 82       | 30          | 150         |
| 2-Hexanone                            | 1   | 17.6783         | 0           | 20                    | 88       | 20          | 150         |
| Tetrachloroethene                     | 1   | 23.6917         | 0           | 20                    | 118      | 64          | 148         |
| Toluene                               | 1   | 18.2002         | 0           | 20                    | 91       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 20.9736         | 0           | 20                    | 105      | 50          | 150         |
| Chlorobenzene                         | 1   | 17.5514         | 0           | 20                    | 88       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

QC Batch: MBS73436

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 18.4534  | 0 | 20  | 92  | 10 | 140 |
| n-Amyl acetate              | 1 | 17.4924  | 0 | 20  | 87  | 20 | 150 |
| Bromoform                   | 1 | 15.2462  | 0 | 20  | 76  | 45 | 169 |
| Ethylbenzene                | 1 | 18.4111  | 0 | 20  | 92  | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 16.9982  | 0 | 20  | 85  | 46 | 157 |
| Styrene                     | 1 | 19.4734  | 0 | 20  | 97  | 40 | 150 |
| m&p-Xylenes                 | 1 | 39.1243  | 0 | 40  | 98  | 40 | 150 |
| o-Xylene                    | 1 | 19.4157  | 0 | 20  | 97  | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 17.0286  | 0 | 20  | 85  | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 17.0024  | 0 | 20  | 85  | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 16.7133  | 0 | 20  | 84  | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 16.1243  | 0 | 20  | 81  | 18 | 190 |
| Isopropylbenzene            | 1 | 20.1107  | 0 | 20  | 101 | 40 | 150 |
| Cyclohexanone               | 1 | 68.0277  | 0 | 100 | 68  | 1  | 300 |
| Camphene                    | 1 | 11.2934  | 0 | 20  | 56  | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 17.015   | 0 | 20  | 85  | 40 | 130 |
| 2-Chlorotoluene             | 1 | 19.9258  | 0 | 20  | 100 | 40 | 150 |
| p-Ethyltoluene              | 1 | 17.8905  | 0 | 20  | 89  | 10 | 200 |
| 4-Chlorotoluene             | 1 | 18.1896  | 0 | 20  | 91  | 40 | 150 |
| n-Propylbenzene             | 1 | 19.122   | 0 | 20  | 96  | 40 | 150 |
| Bromobenzene                | 1 | 15.519   | 0 | 20  | 78  | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 21.6004  | 0 | 20  | 108 | 40 | 150 |
| Butyl methacrylate          | 1 | 19.9729  | 0 | 20  | 100 | 20 | 150 |
| t-Butylbenzene              | 1 | 20.2166  | 0 | 20  | 101 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 19.0129  | 0 | 20  | 95  | 40 | 150 |
| sec-Butylbenzene            | 1 | 19.8798  | 0 | 20  | 99  | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 19.729   | 0 | 20  | 99  | 40 | 150 |
| n-Butylbenzene              | 1 | 19.3192  | 0 | 20  | 97  | 30 | 160 |
| p-Diethylbenzene            | 1 | 21.2238  | 0 | 20  | 106 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 22.0992  | 0 | 20  | 110 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 17.7758  | 0 | 20  | 89  | 10 | 150 |
| Camphor                     | 1 | 127.1763 | 0 | 200 | 64  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 16.272   | 0 | 20  | 81  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 18.265   | 0 | 20  | 91  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 16.9824  | 0 | 20  | 85  | 5  | 180 |
| Naphthalene                 | 1 | 18.5858  | 0 | 20  | 93  | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73436

| Data File                             |     | Sample ID:       |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138708.D              |     | AD07037-005(MSD) |             | 10/22/2018 3:55:00 PM |          |             |             |
| Non Spike(If applicable): 3M138703.D  |     | AD07037-005      |             | 10/22/2018 2:29:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                  |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous  |             | QC Type: MSD          |          |             |             |
| Analyte:                              | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 31.5863          | 0           | 20                    | 158      | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 35.2175          | 0           | 20                    | 176      | 1           | 300         |
| Chloromethane                         | 1   | 34.1415          | 0           | 20                    | 171      | 1           | 273         |
| Bromomethane                          | 1   | 28.5666          | 0           | 20                    | 143      | 1           | 242         |
| Vinyl Chloride                        | 1   | 24.5403          | 0           | 20                    | 123      | 1           | 251         |
| Chloroethane                          | 1   | 27.0644          | 0           | 20                    | 135      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 21.9498          | 0           | 20                    | 110      | 17          | 181         |
| Ethyl ether                           | 1   | 18.1064          | 0           | 20                    | 91       | 30          | 150         |
| Furan                                 | 1   | 19.0316          | 0           | 20                    | 95       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 25.8145          | 0           | 20                    | 129      | 40          | 170         |
| Methylene Chloride                    | 1   | 24.4512          | 0           | 20                    | 122      | 1           | 221         |
| Acrolein                              | 1   | 104.966          | 0           | 100                   | 105      | 40          | 160         |
| Acrylonitrile                         | 1   | 22.4065          | 0           | 20                    | 112      | 40          | 160         |
| Iodomethane                           | 1   | 23.3701          | 0           | 20                    | 117      | 1           | 200         |
| Acetone                               | 1   | 100.0416         | 0           | 100                   | 100      | 20          | 160         |
| Carbon Disulfide                      | 1   | 21.915           | 0           | 20                    | 110      | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 97.9409          | 0           | 100                   | 98       | 1           | 200         |
| n-Hexane                              | 1   | 23.8162          | 0           | 20                    | 119      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 23.1595          | 0           | 20                    | 116      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 22.8364          | 0           | 20                    | 114      | 1           | 234         |
| Methyl Acetate                        | 1   | 20.3703          | 0           | 20                    | 102      | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 23.0295          | 0           | 20                    | 115      | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 21.7216          | 0           | 20                    | 109      | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 23.2869          | 0           | 20                    | 116      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 23.0296          | 0           | 20                    | 115      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 23.0273          | 0           | 20                    | 115      | 40          | 160         |
| Bromochloromethane                    | 1   | 19.2386          | 0           | 20                    | 96       | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 24.8239          | 0           | 20                    | 124      | 10          | 200         |
| Ethyl acetate                         | 1   | 22.6595          | 0           | 20                    | 113      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 1176.686         | 0           | 1000                  | 118      | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 23.9712          | 0           | 20                    | 120      | 50          | 150         |
| Chloroform                            | 1   | 20.3092          | 0           | 20                    | 102      | 51          | 138         |
| Cyclohexane                           | 1   | 24.7057          | 0           | 20                    | 124      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 26.3109          | 0           | 20                    | 132      | 49          | 155         |
| 2-Butanone                            | 1   | 23.1042          | 0           | 20                    | 116      | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 22.3894          | 0           | 20                    | 112      | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 21.4545          | 0           | 20                    | 107      | 70          | 140         |
| Vinyl Acetate                         | 1   | 22.7336          | 0           | 20                    | 114      | 20          | 170         |
| Bromodichloromethane                  | 1   | 22.1557          | 0           | 20                    | 111      | 35          | 155         |
| Methylcyclohexane                     | 1   | 26.0498          | 0           | 20                    | 130      | 30          | 170         |
| Dibromomethane                        | 1   | 24.1766          | 0           | 20                    | 121      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 22.0181          | 0           | 20                    | 110      | 1           | 210         |
| Trichloroethene                       | 1   | 24.1405          | 0           | 20                    | 121      | 70          | 157         |
| Benzene                               | 1   | 25.596           | 0           | 20                    | 128      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 23.45            | 0           | 20                    | 117      | 30          | 150         |
| Iso-propylacetate                     | 1   | 17.8894          | 0           | 20                    | 89       | 20          | 150         |
| Methyl methacrylate                   | 1   | 18.1152          | 0           | 20                    | 91       | 10          | 170         |
| Dibromochloromethane                  | 1   | 17.7553          | 0           | 20                    | 89       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0                | 0           | 20                    | 0*       | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 18.6517          | 0           | 20                    | 93       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 18.1273          | 0           | 20                    | 91       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 17.9493          | 0           | 20                    | 90       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 21.7438          | 0           | 20                    | 109      | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 17.6083          | 0           | 20                    | 88       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 22.4184          | 0           | 20                    | 112      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 18.6308          | 0           | 20                    | 93       | 30          | 150         |
| 2-Hexanone                            | 1   | 19.1346          | 0           | 20                    | 96       | 20          | 150         |
| Tetrachloroethene                     | 1   | 23.6258          | 0           | 20                    | 118      | 64          | 148         |
| Toluene                               | 1   | 18.8524          | 0           | 20                    | 94       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 22.3886          | 0           | 20                    | 112      | 50          | 150         |
| Chlorobenzene                         | 1   | 18.8298          | 0           | 20                    | 94       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73436

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 20.3184  | 0 | 20  | 102 | 10 | 140 |
| n-Amyl acetate              | 1 | 19.3296  | 0 | 20  | 97  | 20 | 150 |
| Bromoform                   | 1 | 16.3859  | 0 | 20  | 82  | 45 | 169 |
| Ethylbenzene                | 1 | 18.8726  | 0 | 20  | 94  | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 18.2742  | 0 | 20  | 91  | 46 | 157 |
| Styrene                     | 1 | 21.4442  | 0 | 20  | 107 | 40 | 150 |
| m&p-Xylenes                 | 1 | 40.3483  | 0 | 40  | 101 | 40 | 150 |
| o-Xylene                    | 1 | 21.9269  | 0 | 20  | 110 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 17.9362  | 0 | 20  | 90  | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 17.9586  | 0 | 20  | 90  | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 18.1377  | 0 | 20  | 91  | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 17.7989  | 0 | 20  | 89  | 18 | 190 |
| Isopropylbenzene            | 1 | 20.5729  | 0 | 20  | 103 | 40 | 150 |
| Cyclohexanone               | 1 | 60.6368  | 0 | 100 | 61  | 1  | 300 |
| Camphene                    | 1 | 9.1932   | 0 | 20  | 46  | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 17.9578  | 0 | 20  | 90  | 40 | 130 |
| 2-Chlorotoluene             | 1 | 21.6204  | 0 | 20  | 108 | 40 | 150 |
| p-Ethyltoluene              | 1 | 18.1655  | 0 | 20  | 91  | 10 | 200 |
| 4-Chlorotoluene             | 1 | 19.5627  | 0 | 20  | 98  | 40 | 150 |
| n-Propylbenzene             | 1 | 20.2377  | 0 | 20  | 101 | 40 | 150 |
| Bromobenzene                | 1 | 18.0257  | 0 | 20  | 90  | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 23.621   | 0 | 20  | 118 | 40 | 150 |
| Butyl methacrylate          | 1 | 21.6781  | 0 | 20  | 108 | 20 | 150 |
| t-Butylbenzene              | 1 | 21.3466  | 0 | 20  | 107 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 19.8755  | 0 | 20  | 99  | 40 | 150 |
| sec-Butylbenzene            | 1 | 21.4214  | 0 | 20  | 107 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 21.5323  | 0 | 20  | 108 | 40 | 150 |
| n-Butylbenzene              | 1 | 19.8752  | 0 | 20  | 99  | 30 | 160 |
| p-Diethylbenzene            | 1 | 21.0696  | 0 | 20  | 105 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 23.3046  | 0 | 20  | 117 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 19.1959  | 0 | 20  | 96  | 10 | 150 |
| Camphor                     | 1 | 168.6678 | 0 | 200 | 84  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 19.9798  | 0 | 20  | 100 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 19.0881  | 0 | 20  | 95  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 18.6437  | 0 | 20  | 93  | 5  | 180 |
| Naphthalene                 | 1 | 21.8936  | 0 | 20  | 109 | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**  
**QC Batch: MBS73436**

8101509 0140

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 3M138708.D             | AD07037-005(MSD) | 10/22/2018 3:55:00 PM |
| Duplicate(If applicable): 3M138707.D | AD07037-005(MS)  | 10/22/2018 3:38:00 PM |
| Inst Blank(If applicable):           |                  |                       |
| Method: 624.1                        | Matrix: Aqueous  | QC Type: MSD          |

| Analyte:                              | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD  | Limit |
|---------------------------------------|--------|----------------------|-----------------------|------|-------|
| Chlorodifluoromethane                 | 1      | 31.5863              | 29.0701               | 8.3  | 40    |
| Dichlorodifluoromethane               | 1      | 35.2175              | 31.7561               | 10   | 40    |
| Chloromethane                         | 1      | 34.1415              | 30.7938               | 10   | 60    |
| Bromomethane                          | 1      | 28.5666              | 24.9501               | 14   | 61    |
| Vinyl Chloride                        | 1      | 24.5403              | 22.5683               | 8.4  | 66    |
| Chloroethane                          | 1      | 27.0644              | 27.1171               | 0.19 | 78    |
| Trichlorofluoromethane                | 1      | 21.9498              | 21.5612               | 1.8  | 84    |
| Ethyl ether                           | 1      | 18.1064              | 15.7157               | 14   | 40    |
| Furan                                 | 1      | 19.0316              | 16.8533               | 12   | 40    |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1      | 25.8145              | 26.4475               | 2.4  | 40    |
| Methylene Chloride                    | 1      | 24.4512              | 23.5186               | 3.9  | 28    |
| Acrolein                              | 1      | 104.966              | 93.006                | 12   | 60    |
| Acrylonitrile                         | 1      | 22.4065              | 19.9633               | 12   | 60    |
| Iodomethane                           | 1      | 23.3701              | 20.9093               | 11   | 40    |
| Acetone                               | 1      | 100.0416             | 87.4622               | 13   | 40    |
| Carbon Disulfide                      | 1      | 21.915               | 20.0411               | 8.9  | 40    |
| t-Butyl Alcohol                       | 1      | 97.9409              | 85.3034               | 14   | 40    |
| n-Hexane                              | 1      | 23.8162              | 23.3007               | 2.2  | 40    |
| Di-isopropyl-ether                    | 1      | 23.1595              | 21.4929               | 7.5  | 40    |
| 1,1-Dichloroethene                    | 1      | 22.8364              | 21.6488               | 5.3  | 32    |
| Methyl Acetate                        | 1      | 20.3703              | 17.2731               | 16   | 40    |
| Methyl-t-butyl ether                  | 1      | 23.0295              | 20.8137               | 10   | 40    |
| 1,1-Dichloroethane                    | 1      | 21.7216              | 19.2176               | 12   | 40    |
| trans-1,2-Dichloroethene              | 1      | 23.2869              | 21.9093               | 6.1  | 45    |
| Ethyl-t-butyl ether                   | 1      | 23.0296              | 21.0785               | 8.8  | 40    |
| cis-1,2-Dichloroethene                | 1      | 23.0273              | 21.8606               | 5.2  | 40    |
| Bromochloromethane                    | 1      | 19.2386              | 17.8428               | 7.5  | 40    |
| 2,2-Dichloropropane                   | 1      | 24.8239              | 24.4291               | 1.6  | 40    |
| Ethyl acetate                         | 1      | 22.6595              | 18.2527               | 22   | 40    |
| 1,4-Dioxane                           | 1      | 1176.686             | 1090.066              | 7.6  | 40    |
| 1,1-Dichloropropene                   | 1      | 23.9712              | 24.4997               | 2.2  | 40    |
| Chloroform                            | 1      | 20.3092              | 18.5632               | 9    | 54    |
| Cyclohexane                           | 1      | 24.7057              | 23.7553               | 3.9  | 40    |
| 1,2-Dichloroethane                    | 1      | 26.3109              | 22.9763               | 14   | 49    |
| 2-Butanone                            | 1      | 23.1042              | 19.4506               | 17   | 40    |
| 1,1,1-Trichloroethane                 | 1      | 22.3894              | 19.7386               | 13   | 36    |
| Carbon Tetrachloride                  | 1      | 21.4545              | 21.2339               | 1    | 41    |
| Vinyl Acetate                         | 1      | 22.7336              | 19.6647               | 14   | 40    |
| Bromodichloromethane                  | 1      | 22.1557              | 20.1355               | 9.6  | 56    |
| Methylcyclohexane                     | 1      | 26.0498              | 26.102                | 0.2  | 40    |
| Dibromomethane                        | 1      | 24.1766              | 23.6617               | 2.2  | 40    |
| 1,2-Dichloropropane                   | 1      | 22.0181              | 20.2169               | 8.5  | 55    |
| Trichloroethene                       | 1      | 24.1405              | 22.0328               | 9.1  | 48    |
| Benzene                               | 1      | 25.596               | 24.1618               | 5.8  | 61    |
| tert-Amyl methyl ether                | 1      | 23.45                | 20.0623               | 16   | 40    |
| Iso-propylacetate                     | 1      | 17.8894              | 17.3757               | 2.9  | 40    |
| Methyl methacrylate                   | 1      | 18.1152              | 17.1136               | 5.7  | 40    |
| Dibromochloromethane                  | 1      | 17.7553              | 15.9584               | 11   | 50    |
| 2-Chloroethylvinylether               | 1      | 0                    | 0                     | NA   | 71    |
| cis-1,3-Dichloropropene               | 1      | 18.6517              | 16.6395               | 11   | 58    |
| trans-1,3-Dichloropropene             | 1      | 18.1273              | 16.3408               | 10   | 56    |
| Ethyl methacrylate                    | 1      | 17.9493              | 16.2241               | 10   | 40    |
| 1,1,2-Trichloroethane                 | 1      | 21.7438              | 19.8672               | 9    | 45    |
| 1,2-Dibromoethane                     | 1      | 17.6083              | 16.3916               | 7.2  | 40    |
| 1,3-Dichloropropane                   | 1      | 22.4184              | 20.0247               | 11   | 40    |
| 4-Methyl-2-Pentanone                  | 1      | 18.6308              | 16.4824               | 12   | 40    |
| 2-Hexanone                            | 1      | 19.1346              | 17.6783               | 7.9  | 40    |
| Tetrachloroethene                     | 1      | 23.6258              | 23.6917               | 0.28 | 39    |
| Toluene                               | 1      | 18.8524              | 18.2002               | 3.5  | 41    |
| 1,1,1,2-Tetrachloroethane             | 1      | 22.3886              | 20.9736               | 6.5  | 40    |
| Chlorobenzene                         | 1      | 18.8298              | 17.5514               | 7    | 53    |
| n-Butyl acrylate                      | 1      | 20.3184              | 18.4534               | 9.6  | 40    |
| n-Amyl acetate                        | 1      | 19.3296              | 17.4924               | 10   | 40    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0141**

QC Batch: MBS73436

|                             |   |          |          |      |    |
|-----------------------------|---|----------|----------|------|----|
| Bromoform                   | 1 | 16.3859  | 15.2462  | 7.2  | 42 |
| Ethylbenzene                | 1 | 18.8726  | 18.4111  | 2.5  | 63 |
| 1,1,2,2-Tetrachloroethane   | 1 | 18.2742  | 16.9982  | 7.2  | 61 |
| Styrene                     | 1 | 21.4442  | 19.4734  | 9.6  | 40 |
| m&p-Xylenes                 | 1 | 40.3483  | 39.1243  | 3.1  | 40 |
| o-Xylene                    | 1 | 21.9269  | 19.4157  | 12   | 40 |
| trans-1,4-Dichloro-2-butene | 1 | 17.9362  | 17.0286  | 5.2  | 40 |
| 1,3-Dichlorobenzene         | 1 | 17.9586  | 17.0024  | 5.5  | 43 |
| 1,4-Dichlorobenzene         | 1 | 18.1377  | 16.7133  | 8.2  | 57 |
| 1,2-Dichlorobenzene         | 1 | 17.7989  | 16.1243  | 9.9  | 57 |
| Isopropylbenzene            | 1 | 20.5729  | 20.1107  | 2.3  | 40 |
| Cyclohexanone               | 1 | 60.6368  | 68.0277  | 11   | 40 |
| Camphene                    | 1 | 9.1932   | 11.2934  | 21   | 40 |
| 1,2,3-Trichloropropane      | 1 | 17.9578  | 17.015   | 5.4  | 40 |
| 2-Chlorotoluene             | 1 | 21.6204  | 19.9258  | 8.2  | 40 |
| p-Ethyltoluene              | 1 | 18.1655  | 17.8905  | 1.5  | 40 |
| 4-Chlorotoluene             | 1 | 19.5627  | 18.1896  | 7.3  | 40 |
| n-Propylbenzene             | 1 | 20.2377  | 19.122   | 5.7  | 40 |
| Bromobenzene                | 1 | 18.0257  | 15.519   | 15   | 40 |
| 1,3,5-Trimethylbenzene      | 1 | 23.621   | 21.6004  | 8.9  | 40 |
| Butyl methacrylate          | 1 | 21.6781  | 19.9729  | 8.2  | 40 |
| t-Butylbenzene              | 1 | 21.3466  | 20.2166  | 5.4  | 40 |
| 1,2,4-Trimethylbenzene      | 1 | 19.8755  | 19.0129  | 4.4  | 40 |
| sec-Butylbenzene            | 1 | 21.4214  | 19.8798  | 7.5  | 40 |
| 4-Isopropyltoluene          | 1 | 21.5323  | 19.729   | 8.7  | 40 |
| n-Butylbenzene              | 1 | 19.8752  | 19.3192  | 2.8  | 40 |
| p-Diethylbenzene            | 1 | 21.0696  | 21.2238  | 0.73 | 40 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 23.3046  | 22.0992  | 5.3  | 40 |
| 1,2-Dibromo-3-Chloropropane | 1 | 19.1959  | 17.7758  | 7.7  | 40 |
| Camphor                     | 1 | 168.6678 | 127.1763 | 28   | 40 |
| Hexachlorobutadiene         | 1 | 19.9798  | 16.272   | 20   | 40 |
| 1,2,4-Trichlorobenzene      | 1 | 19.0881  | 18.265   | 4.4  | 40 |
| 1,2,3-Trichlorobenzene      | 1 | 18.6437  | 16.9824  | 9.3  | 40 |
| Naphthalene                 | 1 | 21.8936  | 18.5858  | 16   | 40 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73438**

8101509 0142

| Data File                             |     | Sample ID:        |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138735.D              |     | AD07187-001(T:MS) |             | 10/23/2018 12:05:00 P |          |             |             |
| Non Spike(If applicable): 3M138727.D  |     | AD07187-001(T)    |             | 10/23/2018 9:47:00 AM |          |             |             |
| Inst Blank(If applicable):            |     |                   |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous   |             | QC Type: MS           |          |             |             |
| Analyte:                              | Col | Spike Conc        | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 39.0473           | 0           | 20                    | 195 *    | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 30.7551           | 0           | 20                    | 154      | 1           | 300         |
| Chloromethane                         | 1   | 30.8383           | 0           | 20                    | 154      | 1           | 273         |
| Bromomethane                          | 1   | 23.1326           | 0           | 20                    | 116      | 1           | 242         |
| Vinyl Chloride                        | 1   | 22.6513           | 0           | 20                    | 113      | 1           | 251         |
| Chloroethane                          | 1   | 21.6171           | 0           | 20                    | 108      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 20.1865           | 0           | 20                    | 101      | 17          | 181         |
| Ethyl ether                           | 1   | 21.3642           | 0           | 20                    | 107      | 30          | 150         |
| Furan                                 | 1   | 16.8786           | 0           | 20                    | 84       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 23.4415           | 0           | 20                    | 117      | 40          | 170         |
| Methylene Chloride                    | 1   | 86.871            | 0           | 20                    | 434 *    | 1           | 221         |
| Acrolein                              | 1   | 80.2097           | 0           | 100                   | 80       | 40          | 160         |
| Acrylonitrile                         | 1   | 20.5185           | 0           | 20                    | 103      | 40          | 160         |
| Iodomethane                           | 1   | 21.7513           | 0           | 20                    | 109      | 1           | 200         |
| Acetone                               | 1   | 141.3669          | 0           | 100                   | 141      | 20          | 160         |
| Carbon Disulfide                      | 1   | 19.104            | 0           | 20                    | 96       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 94.0327           | 0           | 100                   | 94       | 1           | 200         |
| n-Hexane                              | 1   | 26.9588           | 0           | 20                    | 135      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 22.6282           | 0           | 20                    | 113      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 21.5893           | 0           | 20                    | 108      | 1           | 234         |
| Methyl Acetate                        | 1   | 36.8736           | 0           | 20                    | 184 *    | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 22.4412           | 0           | 20                    | 112      | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 20.9638           | 0           | 20                    | 105      | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 20.4059           | 0           | 20                    | 102      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 23.69             | 0           | 20                    | 118      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 21.597            | 0           | 20                    | 108      | 40          | 160         |
| Bromochloromethane                    | 1   | 23.7338           | 0           | 20                    | 119      | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 24.0783           | 0           | 20                    | 120      | 10          | 200         |
| Ethyl acetate                         | 1   | 22.3341           | 0           | 20                    | 112      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 1105.295          | 0           | 1000                  | 111      | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 23.4345           | 0           | 20                    | 117      | 50          | 150         |
| Chloroform                            | 1   | 18.9923           | 0           | 20                    | 95       | 51          | 138         |
| Cyclohexane                           | 1   | 24.73             | 0           | 20                    | 124      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 23.5773           | 0           | 20                    | 118      | 49          | 155         |
| 2-Butanone                            | 1   | 21.2127           | 0           | 20                    | 106      | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 19.835            | 0           | 20                    | 99       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 20.762            | 0           | 20                    | 104      | 70          | 140         |
| Vinyl Acetate                         | 1   | 22.3305           | 0           | 20                    | 112      | 20          | 170         |
| Bromodichloromethane                  | 1   | 20.8198           | 0           | 20                    | 104      | 35          | 155         |
| Methylcyclohexane                     | 1   | 26.7591           | 0           | 20                    | 134      | 30          | 170         |
| Dibromomethane                        | 1   | 24.1139           | 0           | 20                    | 121      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 22.7367           | 0           | 20                    | 114      | 1           | 210         |
| Trichloroethene                       | 1   | 22.1006           | 0           | 20                    | 111      | 70          | 157         |
| Benzene                               | 1   | 25.0146           | 0           | 20                    | 125      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 23.1274           | 0           | 20                    | 116      | 30          | 150         |
| Iso-propylacetate                     | 1   | 19.7878           | 0           | 20                    | 99       | 20          | 150         |
| Methyl methacrylate                   | 1   | 18.1597           | 0           | 20                    | 91       | 10          | 170         |
| Dibromochloromethane                  | 1   | 16.393            | 0           | 20                    | 82       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 20.718            | 0           | 20                    | 104      | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 17.6297           | 0           | 20                    | 88       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 17.2388           | 0           | 20                    | 86       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 19.3968           | 0           | 20                    | 97       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 21.0293           | 0           | 20                    | 105      | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 17.4188           | 0           | 20                    | 87       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 20.3631           | 0           | 20                    | 102      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 19.2296           | 0           | 20                    | 96       | 30          | 150         |
| 2-Hexanone                            | 1   | 18.5511           | 0           | 20                    | 93       | 20          | 150         |
| Tetrachloroethene                     | 1   | 22.0361           | 0           | 20                    | 110      | 64          | 148         |
| Toluene                               | 1   | 18.0812           | 0           | 20                    | 90       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 21.8273           | 0           | 20                    | 109      | 50          | 150         |
| Chlorobenzene                         | 1   | 17.6869           | 0           | 20                    | 88       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**

QC Batch: MBS73438

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 21.6866  | 0 | 20  | 108 | 10 | 140 |
| n-Amyl acetate              | 1 | 21.8786  | 0 | 20  | 109 | 20 | 150 |
| Bromoform                   | 1 | 15.1392  | 0 | 20  | 76  | 45 | 169 |
| Ethylbenzene                | 1 | 21.7703  | 0 | 20  | 109 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 18.1135  | 0 | 20  | 91  | 46 | 157 |
| Styrene                     | 1 | 21.4905  | 0 | 20  | 107 | 40 | 150 |
| m&p-Xylenes                 | 1 | 46.6588  | 0 | 40  | 117 | 40 | 150 |
| o-Xylene                    | 1 | 25.665   | 0 | 20  | 128 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 19.2221  | 0 | 20  | 96  | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 18.5762  | 0 | 20  | 93  | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 17.4248  | 0 | 20  | 87  | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 17.5053  | 0 | 20  | 88  | 18 | 190 |
| Isopropylbenzene            | 1 | 21.3013  | 0 | 20  | 107 | 40 | 150 |
| Cyclohexanone               | 1 | 141.8477 | 0 | 100 | 142 | 1  | 300 |
| Camphene                    | 1 | 22.9553  | 0 | 20  | 115 | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 18.8169  | 0 | 20  | 94  | 40 | 130 |
| 2-Chlorotoluene             | 1 | 20.3296  | 0 | 20  | 102 | 40 | 150 |
| p-Ethyltoluene              | 1 | 19.405   | 0 | 20  | 97  | 10 | 200 |
| 4-Chlorotoluene             | 1 | 19.4089  | 0 | 20  | 97  | 40 | 150 |
| n-Propylbenzene             | 1 | 20.2404  | 0 | 20  | 101 | 40 | 150 |
| Bromobenzene                | 1 | 18.2727  | 0 | 20  | 91  | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 22.2317  | 0 | 20  | 111 | 40 | 150 |
| Butyl methacrylate          | 1 | 20.9852  | 0 | 20  | 105 | 20 | 150 |
| t-Butylbenzene              | 1 | 21.1897  | 0 | 20  | 106 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 20.4029  | 0 | 20  | 102 | 40 | 150 |
| sec-Butylbenzene            | 1 | 22.0312  | 0 | 20  | 110 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 22.4245  | 0 | 20  | 112 | 40 | 150 |
| n-Butylbenzene              | 1 | 21.781   | 0 | 20  | 109 | 30 | 160 |
| p-Diethylbenzene            | 1 | 24.074   | 0 | 20  | 120 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 24.2748  | 0 | 20  | 121 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 18.8643  | 0 | 20  | 94  | 10 | 150 |
| Camphor                     | 1 | 161.0291 | 0 | 200 | 81  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 21.2317  | 0 | 20  | 106 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 19.391   | 0 | 20  | 97  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 18.9656  | 0 | 20  | 95  | 5  | 180 |
| Naphthalene                 | 1 | 22.929   | 0 | 20  | 115 | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: MBS73438

| Data File                             |     | Sample ID:         |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|--------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M138736.D              |     | AD07187-001(T:MSD) |             | 10/23/2018 12:22:00 P |          |             |             |
| Non Spike(If applicable): 3M138727.D  |     | AD07187-001(T)     |             | 10/23/2018 9:47:00 AM |          |             |             |
| Inst Blank(If applicable):            |     |                    |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous    |             | QC Type: MSD          |          |             |             |
| Analyte:                              | Col | Spike Conc         | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 46.673             | 0           | 20                    | 233 *    | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 37.5959            | 0           | 20                    | 188      | 1           | 300         |
| Chloromethane                         | 1   | 39.5719            | 0           | 20                    | 198      | 1           | 273         |
| Bromomethane                          | 1   | 31.169             | 0           | 20                    | 156      | 1           | 242         |
| Vinyl Chloride                        | 1   | 29.086             | 0           | 20                    | 145      | 1           | 251         |
| Chloroethane                          | 1   | 29.2272            | 0           | 20                    | 146      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 25.043             | 0           | 20                    | 125      | 17          | 181         |
| Ethyl ether                           | 1   | 26.2646            | 0           | 20                    | 131      | 30          | 150         |
| Furan                                 | 1   | 22.452             | 0           | 20                    | 112      | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 27.4497            | 0           | 20                    | 137      | 40          | 170         |
| Methylene Chloride                    | 1   | 107.1452           | 0           | 20                    | 536 *    | 1           | 221         |
| Acrolein                              | 1   | 101.7468           | 0           | 100                   | 102      | 40          | 160         |
| Acrylonitrile                         | 1   | 24.8652            | 0           | 20                    | 124      | 40          | 160         |
| Iodomethane                           | 1   | 27.377             | 0           | 20                    | 137      | 1           | 200         |
| Acetone                               | 1   | 173.2693           | 0           | 100                   | 173 *    | 20          | 160         |
| Carbon Disulfide                      | 1   | 23.4565            | 0           | 20                    | 117      | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 118.4073           | 0           | 100                   | 118      | 1           | 200         |
| n-Hexane                              | 1   | 32.6171            | 0           | 20                    | 163      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 26.9949            | 0           | 20                    | 135      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 26.1968            | 0           | 20                    | 131      | 1           | 234         |
| Methyl Acetate                        | 1   | 43.882             | 0           | 20                    | 219 *    | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 26.9041            | 0           | 20                    | 135      | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 24.8105            | 0           | 20                    | 124      | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 27.066             | 0           | 20                    | 135      | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 26.8601            | 0           | 20                    | 134      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 25.1184            | 0           | 20                    | 126      | 40          | 160         |
| Bromochloromethane                    | 1   | 27.5591            | 0           | 20                    | 138      | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 29.7479            | 0           | 20                    | 149      | 10          | 200         |
| Ethyl acetate                         | 1   | 27.194             | 0           | 20                    | 136      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 1253.664           | 0           | 1000                  | 125      | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 28.0079            | 0           | 20                    | 140      | 50          | 150         |
| Chloroform                            | 1   | 23.0835            | 0           | 20                    | 115      | 51          | 138         |
| Cyclohexane                           | 1   | 30.4771            | 0           | 20                    | 152      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 28.2343            | 0           | 20                    | 141      | 49          | 155         |
| 2-Butanone                            | 1   | 24.6894            | 0           | 20                    | 123      | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 24.6829            | 0           | 20                    | 123      | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 24.9109            | 0           | 20                    | 125      | 70          | 140         |
| Vinyl Acetate                         | 1   | 26.0127            | 0           | 20                    | 130      | 20          | 170         |
| Bromodichloromethane                  | 1   | 23.767             | 0           | 20                    | 119      | 35          | 155         |
| Methylcyclohexane                     | 1   | 33.9353            | 0           | 20                    | 170      | 30          | 170         |
| Dibromomethane                        | 1   | 28.8981            | 0           | 20                    | 144      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 24.811             | 0           | 20                    | 124      | 1           | 210         |
| Trichloroethene                       | 1   | 26.9165            | 0           | 20                    | 135      | 70          | 157         |
| Benzene                               | 1   | 30.3971            | 0           | 20                    | 152 *    | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 26.8845            | 0           | 20                    | 134      | 30          | 150         |
| Iso-propylacetate                     | 1   | 22.3418            | 0           | 20                    | 112      | 20          | 150         |
| Methyl methacrylate                   | 1   | 22.5128            | 0           | 20                    | 113      | 10          | 170         |
| Dibromochloromethane                  | 1   | 18.7345            | 0           | 20                    | 94       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 23.4102            | 0           | 20                    | 117      | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 20.5089            | 0           | 20                    | 103      | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 19.8452            | 0           | 20                    | 99       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 21.7874            | 0           | 20                    | 109      | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 25.3243            | 0           | 20                    | 127      | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 19.8952            | 0           | 20                    | 99       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 24.7592            | 0           | 20                    | 124      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 22.9026            | 0           | 20                    | 115      | 30          | 150         |
| 2-Hexanone                            | 1   | 23.2517            | 0           | 20                    | 116      | 20          | 150         |
| Tetrachloroethene                     | 1   | 24.7067            | 0           | 20                    | 124      | 64          | 148         |
| Toluene                               | 1   | 21.5627            | 0           | 20                    | 108      | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 25.4697            | 0           | 20                    | 127      | 50          | 150         |
| Chlorobenzene                         | 1   | 20.436             | 0           | 20                    | 102      | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73438

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 24.859   | 0 | 20  | 124 | 10 | 140 |
| n-Amyl acetate              | 1 | 25.1977  | 0 | 20  | 126 | 20 | 150 |
| Bromoform                   | 1 | 18.6517  | 0 | 20  | 93  | 45 | 169 |
| Ethylbenzene                | 1 | 24.5069  | 0 | 20  | 123 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.0319  | 0 | 20  | 110 | 46 | 157 |
| Styrene                     | 1 | 24.7254  | 0 | 20  | 124 | 40 | 150 |
| m&p-Xylenes                 | 1 | 56.3313  | 0 | 40  | 141 | 40 | 150 |
| o-Xylene                    | 1 | 29.7828  | 0 | 20  | 149 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 25.7683  | 0 | 20  | 129 | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 21.3598  | 0 | 20  | 107 | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 20.4863  | 0 | 20  | 102 | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 20.2982  | 0 | 20  | 101 | 18 | 190 |
| Isopropylbenzene            | 1 | 25.5151  | 0 | 20  | 128 | 40 | 150 |
| Cyclohexanone               | 1 | 166.4102 | 0 | 100 | 166 | 1  | 300 |
| Camphene                    | 1 | 26.4582  | 0 | 20  | 132 | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 22.2053  | 0 | 20  | 111 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 24.4999  | 0 | 20  | 122 | 40 | 150 |
| p-Ethyltoluene              | 1 | 23.8368  | 0 | 20  | 119 | 10 | 200 |
| 4-Chlorotoluene             | 1 | 23.7158  | 0 | 20  | 119 | 40 | 150 |
| n-Propylbenzene             | 1 | 23.2362  | 0 | 20  | 116 | 40 | 150 |
| Bromobenzene                | 1 | 21.88    | 0 | 20  | 109 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 25.4867  | 0 | 20  | 127 | 40 | 150 |
| Butyl methacrylate          | 1 | 24.2389  | 0 | 20  | 121 | 20 | 150 |
| t-Butylbenzene              | 1 | 26.0421  | 0 | 20  | 130 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 24.0896  | 0 | 20  | 120 | 40 | 150 |
| sec-Butylbenzene            | 1 | 26.1313  | 0 | 20  | 131 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 26.4048  | 0 | 20  | 132 | 40 | 150 |
| n-Butylbenzene              | 1 | 26.1749  | 0 | 20  | 131 | 30 | 160 |
| p-Diethylbenzene            | 1 | 28.1988  | 0 | 20  | 141 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 31.6204  | 0 | 20  | 158 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 23.57    | 0 | 20  | 118 | 10 | 150 |
| Camphor                     | 1 | 253.7583 | 0 | 200 | 127 | 1  | 160 |
| Hexachlorobutadiene         | 1 | 23.7916  | 0 | 20  | 119 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 24.8544  | 0 | 20  | 124 | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 23.1365  | 0 | 20  | 116 | 5  | 180 |
| Naphthalene                 | 1 | 28.5936  | 0 | 20  | 143 | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0146**

QC Batch: MBS73438

|                                      |                    |                       |
|--------------------------------------|--------------------|-----------------------|
| Data File                            | Sample ID:         | Analysis Date         |
| Spike or Dup: 3M138736.D             | AD07187-001(T:MSD) | 10/23/2018 12:22:00 P |
| Duplicate(If applicable): 3M138735.D | AD07187-001(T:MS)  | 10/23/2018 12:05:00 P |
| Inst Blank(If applicable):           |                    |                       |
| Method: 624.1                        | Matrix: Aqueous    | QC Type: MSD          |

| Analyte:                              | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBSD<br>Conc | RPD | Limit |
|---------------------------------------|--------|----------------------|------------------------|-----|-------|
| Chlorodifluoromethane                 | 1      | 46.673               | 39.0473                | 18  | 40    |
| Dichlorodifluoromethane               | 1      | 37.5959              | 30.7551                | 20  | 40    |
| Chloromethane                         | 1      | 39.5719              | 30.8383                | 25  | 60    |
| Bromomethane                          | 1      | 31.169               | 23.1326                | 30  | 61    |
| Vinyl Chloride                        | 1      | 29.086               | 22.6513                | 25  | 66    |
| Chloroethane                          | 1      | 29.2272              | 21.6171                | 30  | 78    |
| Trichlorofluoromethane                | 1      | 25.043               | 20.1865                | 21  | 84    |
| Ethyl ether                           | 1      | 26.2646              | 21.3642                | 21  | 40    |
| Furan                                 | 1      | 22.452               | 16.8786                | 28  | 40    |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1      | 27.4497              | 23.4415                | 16  | 40    |
| Methylene Chloride                    | 1      | 107.1452             | 86.871                 | 21  | 28    |
| Acrolein                              | 1      | 101.7468             | 80.2097                | 24  | 60    |
| Acrylonitrile                         | 1      | 24.8652              | 20.5185                | 19  | 60    |
| Iodomethane                           | 1      | 27.377               | 21.7513                | 23  | 40    |
| Acetone                               | 1      | 173.2693             | 141.3669               | 20  | 40    |
| Carbon Disulfide                      | 1      | 23.4565              | 19.104                 | 20  | 40    |
| t-Butyl Alcohol                       | 1      | 118.4073             | 94.0327                | 23  | 40    |
| n-Hexane                              | 1      | 32.6171              | 26.9588                | 19  | 40    |
| Di-isopropyl-ether                    | 1      | 26.9949              | 22.6282                | 18  | 40    |
| 1,1-Dichloroethene                    | 1      | 26.1968              | 21.5893                | 19  | 32    |
| Methyl Acetate                        | 1      | 43.882               | 36.8736                | 17  | 40    |
| Methyl-t-butyl ether                  | 1      | 26.9041              | 22.4412                | 18  | 40    |
| 1,1-Dichloroethane                    | 1      | 24.8105              | 20.9638                | 17  | 40    |
| trans-1,2-Dichloroethene              | 1      | 27.066               | 20.4059                | 28  | 45    |
| Ethyl-t-butyl ether                   | 1      | 26.8601              | 23.69                  | 13  | 40    |
| cis-1,2-Dichloroethene                | 1      | 25.1184              | 21.597                 | 15  | 40    |
| Bromochloromethane                    | 1      | 27.5591              | 23.7338                | 15  | 40    |
| 2,2-Dichloropropane                   | 1      | 29.7479              | 24.0783                | 21  | 40    |
| Ethyl acetate                         | 1      | 27.194               | 22.3341                | 20  | 40    |
| 1,4-Dioxane                           | 1      | 1253.664             | 1105.295               | 13  | 40    |
| 1,1-Dichloropropene                   | 1      | 28.0079              | 23.4345                | 18  | 40    |
| Chloroform                            | 1      | 23.0835              | 18.9923                | 19  | 54    |
| Cyclohexane                           | 1      | 30.4771              | 24.73                  | 21  | 40    |
| 1,2-Dichloroethane                    | 1      | 28.2343              | 23.5773                | 18  | 49    |
| 2-Butanone                            | 1      | 24.6894              | 21.2127                | 15  | 40    |
| 1,1,1-Trichloroethane                 | 1      | 24.6829              | 19.835                 | 22  | 36    |
| Carbon Tetrachloride                  | 1      | 24.9109              | 20.762                 | 18  | 41    |
| Vinyl Acetate                         | 1      | 26.0127              | 22.3305                | 15  | 40    |
| Bromodichloromethane                  | 1      | 23.767               | 20.8198                | 13  | 56    |
| Methylcyclohexane                     | 1      | 33.9353              | 26.7591                | 24  | 40    |
| Dibromomethane                        | 1      | 28.8981              | 24.1139                | 18  | 40    |
| 1,2-Dichloropropane                   | 1      | 24.811               | 22.7367                | 8.7 | 55    |
| Trichloroethene                       | 1      | 26.9165              | 22.1006                | 20  | 48    |
| Benzene                               | 1      | 30.3971              | 25.0146                | 19  | 61    |
| tert-Amyl methyl ether                | 1      | 26.8845              | 23.1274                | 15  | 40    |
| Iso-propylacetate                     | 1      | 22.3418              | 19.7878                | 12  | 40    |
| Methyl methacrylate                   | 1      | 22.5128              | 18.1597                | 21  | 40    |
| Dibromochloromethane                  | 1      | 18.7345              | 16.393                 | 13  | 50    |
| 2-Chloroethylvinylether               | 1      | 23.4102              | 20.718                 | 12  | 71    |
| cis-1,3-Dichloropropene               | 1      | 20.5089              | 17.6297                | 15  | 58    |
| trans-1,3-Dichloropropene             | 1      | 19.8452              | 17.2388                | 14  | 56    |
| Ethyl methacrylate                    | 1      | 21.7874              | 19.3968                | 12  | 40    |
| 1,1,2-Trichloroethane                 | 1      | 25.3243              | 21.0293                | 19  | 45    |
| 1,2-Dibromoethane                     | 1      | 19.8952              | 17.4188                | 13  | 40    |
| 1,3-Dichloropropane                   | 1      | 24.7592              | 20.3631                | 19  | 40    |
| 4-Methyl-2-Pentanone                  | 1      | 22.9026              | 19.2296                | 17  | 40    |
| 2-Hexanone                            | 1      | 23.2517              | 18.5511                | 22  | 40    |
| Tetrachloroethene                     | 1      | 24.7067              | 22.0361                | 11  | 39    |
| Toluene                               | 1      | 21.5627              | 18.0812                | 18  | 41    |
| 1,1,1,2-Tetrachloroethane             | 1      | 25.4697              | 21.8273                | 15  | 40    |
| Chlorobenzene                         | 1      | 20.436               | 17.6869                | 14  | 53    |
| n-Butyl acrylate                      | 1      | 24.859               | 21.6866                | 14  | 40    |
| n-Amyl acetate                        | 1      | 25.1977              | 21.8786                | 14  | 40    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0147**

QC Batch: MBS73438

|                             |   |          |          |     |    |
|-----------------------------|---|----------|----------|-----|----|
| Bromoform                   | 1 | 18.6517  | 15.1392  | 21  | 42 |
| Ethylbenzene                | 1 | 24.5069  | 21.7703  | 12  | 63 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.0319  | 18.1135  | 20  | 61 |
| Styrene                     | 1 | 24.7254  | 21.4905  | 14  | 40 |
| m&p-Xylenes                 | 1 | 56.3313  | 46.6588  | 19  | 40 |
| o-Xylene                    | 1 | 29.7828  | 25.665   | 15  | 40 |
| trans-1,4-Dichloro-2-butene | 1 | 25.7683  | 19.2221  | 29  | 40 |
| 1,3-Dichlorobenzene         | 1 | 21.3598  | 18.5762  | 14  | 43 |
| 1,4-Dichlorobenzene         | 1 | 20.4863  | 17.4248  | 16  | 57 |
| 1,2-Dichlorobenzene         | 1 | 20.2982  | 17.5053  | 15  | 57 |
| Isopropylbenzene            | 1 | 25.5151  | 21.3013  | 18  | 40 |
| Cyclohexanone               | 1 | 166.4102 | 141.8477 | 16  | 40 |
| Camphene                    | 1 | 26.4582  | 22.9553  | 14  | 40 |
| 1,2,3-Trichloropropane      | 1 | 22.2053  | 18.8169  | 17  | 40 |
| 2-Chlorotoluene             | 1 | 24.4999  | 20.3296  | 19  | 40 |
| p-Ethyltoluene              | 1 | 23.8368  | 19.405   | 20  | 40 |
| 4-Chlorotoluene             | 1 | 23.7158  | 19.4089  | 20  | 40 |
| n-Propylbenzene             | 1 | 23.2362  | 20.2404  | 14  | 40 |
| Bromobenzene                | 1 | 21.88    | 18.2727  | 18  | 40 |
| 1,3,5-Trimethylbenzene      | 1 | 25.4867  | 22.2317  | 14  | 40 |
| Butyl methacrylate          | 1 | 24.2389  | 20.9852  | 14  | 40 |
| t-Butylbenzene              | 1 | 26.0421  | 21.1897  | 21  | 40 |
| 1,2,4-Trimethylbenzene      | 1 | 24.0896  | 20.4029  | 17  | 40 |
| sec-Butylbenzene            | 1 | 26.1313  | 22.0312  | 17  | 40 |
| 4-Isopropyltoluene          | 1 | 26.4048  | 22.4245  | 16  | 40 |
| n-Butylbenzene              | 1 | 26.1749  | 21.781   | 18  | 40 |
| p-Diethylbenzene            | 1 | 28.1988  | 24.074   | 16  | 40 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 31.6204  | 24.2748  | 26  | 40 |
| 1,2-Dibromo-3-Chloropropane | 1 | 23.57    | 18.8643  | 22  | 40 |
| Camphor                     | 1 | 253.7583 | 161.0291 | 45* | 40 |
| Hexachlorobutadiene         | 1 | 23.7916  | 21.2317  | 11  | 40 |
| 1,2,4-Trichlorobenzene      | 1 | 24.8544  | 19.391   | 25  | 40 |
| 1,2,3-Trichlorobenzene      | 1 | 23.1365  | 18.9656  | 20  | 40 |
| Naphthalene                 | 1 | 28.5936  | 22.929   | 22  | 40 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73499**

8101509 0148

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M139075.D              |     | AD07121-007(MS) |             | 10/27/2018 2:44:00 PM |          |             |             |
| Non Spike(If applicable): 3M139071.D  |     | AD07121-007     |             | 10/27/2018 1:35:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous |             | QC Type: MS           |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 38.5801         | 0           | 20                    | 193 *    | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 28.0211         | 0           | 20                    | 140      | 1           | 300         |
| Chloromethane                         | 1   | 28.3391         | 0           | 20                    | 142      | 1           | 273         |
| Bromomethane                          | 1   | 18.3729         | 0           | 20                    | 92       | 1           | 242         |
| Vinyl Chloride                        | 1   | 19.8582         | 0           | 20                    | 99       | 1           | 251         |
| Chloroethane                          | 1   | 21.2529         | 0           | 20                    | 106      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 14.8161         | 0           | 20                    | 74       | 17          | 181         |
| Ethyl ether                           | 1   | 13.9969         | 0           | 20                    | 70       | 30          | 150         |
| Furan                                 | 1   | 14.6953         | 0           | 20                    | 73       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 18.432          | 0           | 20                    | 92       | 40          | 170         |
| Methylene Chloride                    | 1   | 17.9181         | 0           | 20                    | 90       | 1           | 221         |
| Acrolein                              | 1   | 85.778          | 0           | 100                   | 86       | 40          | 160         |
| Acrylonitrile                         | 1   | 19.7058         | 0           | 20                    | 99       | 40          | 160         |
| Iodomethane                           | 1   | 15.1672         | 0           | 20                    | 76       | 1           | 200         |
| Acetone                               | 1   | 74.2432         | 0           | 100                   | 74       | 20          | 160         |
| Carbon Disulfide                      | 1   | 15.5261         | 0           | 20                    | 78       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 74.9586         | 0           | 100                   | 75       | 1           | 200         |
| n-Hexane                              | 1   | 18.0693         | 0           | 20                    | 90       | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 19.8448         | 0           | 20                    | 99       | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 17.0881         | 0           | 20                    | 85       | 1           | 234         |
| Methyl Acetate                        | 1   | 16.8441         | 0           | 20                    | 84       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 15.7549         | 0           | 20                    | 79       | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 16.1393         | 0           | 20                    | 81       | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 15.3872         | 0           | 20                    | 77       | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 17.7697         | 0           | 20                    | 89       | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 17.9346         | 0           | 20                    | 90       | 40          | 160         |
| Bromochloromethane                    | 1   | 17.0461         | 0           | 20                    | 85       | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 17.6248         | 0           | 20                    | 88       | 10          | 200         |
| Ethyl acetate                         | 1   | 20.0027         | 0           | 20                    | 100      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 767.1236        | 0           | 1000                  | 77       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 18.0035         | 0           | 20                    | 90       | 50          | 150         |
| Chloroform                            | 1   | 14.3129         | 0           | 20                    | 72       | 51          | 138         |
| Cyclohexane                           | 1   | 19.5964         | 0           | 20                    | 98       | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 17.6292         | 0           | 20                    | 88       | 49          | 155         |
| 2-Butanone                            | 1   | 17.4313         | 0           | 20                    | 87       | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 15.2414         | 0           | 20                    | 76       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 15.5527         | 0           | 20                    | 78       | 70          | 140         |
| Vinyl Acetate                         | 1   | 19.8638         | 0           | 20                    | 99       | 20          | 170         |
| Bromodichloromethane                  | 1   | 15.9992         | 0           | 20                    | 80       | 35          | 155         |
| Methylcyclohexane                     | 1   | 18.3176         | 0           | 20                    | 92       | 30          | 170         |
| Dibromomethane                        | 1   | 17.3139         | 0           | 20                    | 87       | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 19.5334         | 0           | 20                    | 98       | 1           | 210         |
| Trichloroethene                       | 1   | 14.8936         | 0           | 20                    | 74       | 70          | 157         |
| Benzene                               | 1   | 19.3047         | 0           | 20                    | 97       | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 16.9221         | 0           | 20                    | 85       | 30          | 150         |
| Iso-propylacetate                     | 1   | 20.0722         | 0           | 20                    | 100      | 20          | 150         |
| Methyl methacrylate                   | 1   | 19.1434         | 0           | 20                    | 96       | 10          | 170         |
| Dibromochloromethane                  | 1   | 14.5952         | 0           | 20                    | 73       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0               | 0           | 20                    | 0 *      | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 17.6815         | 0           | 20                    | 88       | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 15.9486         | 0           | 20                    | 80       | 17          | 183         |
| Ethyl methacrylate                    | 1   | 18.5851         | 0           | 20                    | 93       | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 18.5297         | 0           | 20                    | 93       | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 15.4811         | 0           | 20                    | 77       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 21.7935         | 0           | 20                    | 109      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 20.4116         | 0           | 20                    | 102      | 30          | 150         |
| 2-Hexanone                            | 1   | 19.8074         | 0           | 20                    | 99       | 20          | 150         |
| Tetrachloroethene                     | 1   | 18.784          | 0           | 20                    | 94       | 64          | 148         |
| Toluene                               | 1   | 16.7223         | 0           | 20                    | 84       | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 20.7711         | 0           | 20                    | 104      | 50          | 150         |
| Chlorobenzene                         | 1   | 15.4894         | 0           | 20                    | 77       | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73499

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 21.3015  | 0 | 20  | 107 | 10 | 140 |
| n-Amyl acetate              | 1 | 21.7995  | 0 | 20  | 109 | 20 | 150 |
| Bromoform                   | 1 | 14.9624  | 0 | 20  | 75  | 45 | 169 |
| Ethylbenzene                | 1 | 21.189   | 0 | 20  | 106 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 17.1406  | 0 | 20  | 86  | 46 | 157 |
| Styrene                     | 1 | 18.0436  | 0 | 20  | 90  | 40 | 150 |
| m&p-Xylenes                 | 1 | 37.5457  | 0 | 40  | 94  | 40 | 150 |
| o-Xylene                    | 1 | 18.53    | 0 | 20  | 93  | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 17.462   | 0 | 20  | 87  | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 16.5417  | 0 | 20  | 83  | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 15.82    | 0 | 20  | 79  | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 15.5574  | 0 | 20  | 78  | 18 | 190 |
| Isopropylbenzene            | 1 | 18.6483  | 0 | 20  | 93  | 40 | 150 |
| Cyclohexanone               | 1 | 81.0951  | 0 | 100 | 81  | 1  | 300 |
| Camphene                    | 1 | 9.607    | 0 | 20  | 48  | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 17.7715  | 0 | 20  | 89  | 40 | 130 |
| 2-Chlorotoluene             | 1 | 19.1001  | 0 | 20  | 96  | 40 | 150 |
| p-Ethyltoluene              | 1 | 15.3499  | 0 | 20  | 77  | 10 | 200 |
| 4-Chlorotoluene             | 1 | 17.1512  | 0 | 20  | 86  | 40 | 150 |
| n-Propylbenzene             | 1 | 18.7427  | 0 | 20  | 94  | 40 | 150 |
| Bromobenzene                | 1 | 15.7281  | 0 | 20  | 79  | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 17.6971  | 0 | 20  | 88  | 40 | 150 |
| Butyl methacrylate          | 1 | 21.4917  | 0 | 20  | 107 | 20 | 150 |
| t-Butylbenzene              | 1 | 17.3716  | 0 | 20  | 87  | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 17.8914  | 0 | 20  | 89  | 40 | 150 |
| sec-Butylbenzene            | 1 | 19.067   | 0 | 20  | 95  | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 17.8214  | 0 | 20  | 89  | 40 | 150 |
| n-Butylbenzene              | 1 | 19.029   | 0 | 20  | 95  | 30 | 160 |
| p-Diethylbenzene            | 1 | 17.5927  | 0 | 20  | 88  | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 19.2787  | 0 | 20  | 96  | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 17.7082  | 0 | 20  | 89  | 10 | 150 |
| Camphor                     | 1 | 121.7778 | 0 | 200 | 61  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 15.9629  | 0 | 20  | 80  | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 18.707   | 0 | 20  | 94  | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 16.6859  | 0 | 20  | 83  | 5  | 180 |
| Naphthalene                 | 1 | 17.3346  | 0 | 20  | 87  | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**Recovery Data Laboratory Limits**  
**QC Batch: MBS73499**

8101509 0150

| Data File                             |     | Sample ID:       |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 3M139076.D              |     | AD07121-007(MSD) |             | 10/27/2018 3:02:00 PM |          |             |             |
| Non Spike(If applicable): 3M139071.D  |     | AD07121-007      |             | 10/27/2018 1:35:00 PM |          |             |             |
| Inst Blank(If applicable):            |     |                  |             |                       |          |             |             |
| Method: 624.1                         |     | Matrix: Aqueous  |             | QC Type: MSD          |          |             |             |
| Analyte:                              | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 42.4217          | 0           | 20                    | 212 *    | 10          | 180         |
| Dichlorodifluoromethane               | 1   | 36.4507          | 0           | 20                    | 182      | 1           | 300         |
| Chloromethane                         | 1   | 37.8517          | 0           | 20                    | 189      | 1           | 273         |
| Bromomethane                          | 1   | 24.223           | 0           | 20                    | 121      | 1           | 242         |
| Vinyl Chloride                        | 1   | 23.7558          | 0           | 20                    | 119      | 1           | 251         |
| Chloroethane                          | 1   | 24.9992          | 0           | 20                    | 125      | 14          | 230         |
| Trichlorofluoromethane                | 1   | 18.1415          | 0           | 20                    | 91       | 17          | 181         |
| Ethyl ether                           | 1   | 17.1593          | 0           | 20                    | 86       | 30          | 150         |
| Furan                                 | 1   | 18.5489          | 0           | 20                    | 93       | 30          | 160         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 23.0234          | 0           | 20                    | 115      | 40          | 170         |
| Methylene Chloride                    | 1   | 21.8838          | 0           | 20                    | 109      | 1           | 221         |
| Acrolein                              | 1   | 101.3997         | 0           | 100                   | 101      | 40          | 160         |
| Acrylonitrile                         | 1   | 23.6012          | 0           | 20                    | 118      | 40          | 160         |
| Iodomethane                           | 1   | 18.3267          | 0           | 20                    | 92       | 1           | 200         |
| Acetone                               | 1   | 101.927          | 0           | 100                   | 102      | 20          | 160         |
| Carbon Disulfide                      | 1   | 19.6791          | 0           | 20                    | 98       | 30          | 160         |
| t-Butyl Alcohol                       | 1   | 82.3766          | 0           | 100                   | 82       | 1           | 200         |
| n-Hexane                              | 1   | 24.2332          | 0           | 20                    | 121      | 5           | 210         |
| Di-isopropyl-ether                    | 1   | 24.2403          | 0           | 20                    | 121      | 30          | 150         |
| 1,1-Dichloroethene                    | 1   | 21.5603          | 0           | 20                    | 108      | 1           | 234         |
| Methyl Acetate                        | 1   | 18.439           | 0           | 20                    | 92       | 20          | 150         |
| Methyl-t-butyl ether                  | 1   | 19.2756          | 0           | 20                    | 96       | 30          | 150         |
| 1,1-Dichloroethane                    | 1   | 21.3219          | 0           | 20                    | 107      | 59          | 155         |
| trans-1,2-Dichloroethene              | 1   | 18.8486          | 0           | 20                    | 94       | 54          | 156         |
| Ethyl-t-butyl ether                   | 1   | 22.2078          | 0           | 20                    | 111      | 30          | 150         |
| cis-1,2-Dichloroethene                | 1   | 20.8587          | 0           | 20                    | 104      | 40          | 160         |
| Bromochloromethane                    | 1   | 21.5329          | 0           | 20                    | 108      | 30          | 150         |
| 2,2-Dichloropropane                   | 1   | 23.1233          | 0           | 20                    | 116      | 10          | 200         |
| Ethyl acetate                         | 1   | 22.1607          | 0           | 20                    | 111      | 20          | 170         |
| 1,4-Dioxane                           | 1   | 783.0122         | 0           | 1000                  | 78       | 1           | 200         |
| 1,1-Dichloropropene                   | 1   | 21.8834          | 0           | 20                    | 109      | 50          | 150         |
| Chloroform                            | 1   | 18.3827          | 0           | 20                    | 92       | 51          | 138         |
| Cyclohexane                           | 1   | 25.4821          | 0           | 20                    | 127      | 40          | 160         |
| 1,2-Dichloroethane                    | 1   | 23.0648          | 0           | 20                    | 115      | 49          | 155         |
| 2-Butanone                            | 1   | 21.4612          | 0           | 20                    | 107      | 1           | 220         |
| 1,1,1-Trichloroethane                 | 1   | 19.1883          | 0           | 20                    | 96       | 52          | 162         |
| Carbon Tetrachloride                  | 1   | 20.1647          | 0           | 20                    | 101      | 70          | 140         |
| Vinyl Acetate                         | 1   | 22.9663          | 0           | 20                    | 115      | 20          | 170         |
| Bromodichloromethane                  | 1   | 20.6796          | 0           | 20                    | 103      | 35          | 155         |
| Methylcyclohexane                     | 1   | 22.8313          | 0           | 20                    | 114      | 30          | 170         |
| Dibromomethane                        | 1   | 21.7175          | 0           | 20                    | 109      | 30          | 160         |
| 1,2-Dichloropropane                   | 1   | 23.5863          | 0           | 20                    | 118      | 1           | 210         |
| Trichloroethene                       | 1   | 19.7657          | 0           | 20                    | 99       | 70          | 157         |
| Benzene                               | 1   | 24.6303          | 0           | 20                    | 123      | 37          | 151         |
| tert-Amyl methyl ether                | 1   | 20.8047          | 0           | 20                    | 104      | 30          | 150         |
| Iso-propylacetate                     | 1   | 23.6009          | 0           | 20                    | 118      | 20          | 150         |
| Methyl methacrylate                   | 1   | 24.6947          | 0           | 20                    | 123      | 10          | 170         |
| Dibromochloromethane                  | 1   | 18.7801          | 0           | 20                    | 94       | 53          | 149         |
| 2-Chloroethylvinylether               | 1   | 0                | 0           | 20                    | 0 *      | 1           | 305         |
| cis-1,3-Dichloropropene               | 1   | 21.3466          | 0           | 20                    | 107      | 1           | 227         |
| trans-1,3-Dichloropropene             | 1   | 20.2032          | 0           | 20                    | 101      | 17          | 183         |
| Ethyl methacrylate                    | 1   | 23.2712          | 0           | 20                    | 116      | 20          | 150         |
| 1,1,2-Trichloroethane                 | 1   | 24.9329          | 0           | 20                    | 125      | 52          | 150         |
| 1,2-Dibromoethane                     | 1   | 18.4252          | 0           | 20                    | 92       | 20          | 150         |
| 1,3-Dichloropropane                   | 1   | 24.7703          | 0           | 20                    | 124      | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 22.4048          | 0           | 20                    | 112      | 30          | 150         |
| 2-Hexanone                            | 1   | 24.6172          | 0           | 20                    | 123      | 20          | 150         |
| Tetrachloroethene                     | 1   | 25.7835          | 0           | 20                    | 129      | 64          | 148         |
| Toluene                               | 1   | 21.1436          | 0           | 20                    | 106      | 47          | 150         |
| 1,1,1,2-Tetrachloroethane             | 1   | 24.1578          | 0           | 20                    | 121      | 50          | 150         |
| Chlorobenzene                         | 1   | 20.738           | 0           | 20                    | 104      | 37          | 160         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73499

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 25.9197  | 0 | 20  | 130 | 10 | 140 |
| n-Amyl acetate              | 1 | 27.6269  | 0 | 20  | 138 | 20 | 150 |
| Bromoform                   | 1 | 19.9982  | 0 | 20  | 100 | 45 | 169 |
| Ethylbenzene                | 1 | 21.8971  | 0 | 20  | 109 | 37 | 162 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.079   | 0 | 20  | 110 | 46 | 157 |
| Styrene                     | 1 | 24.3918  | 0 | 20  | 122 | 40 | 150 |
| m&p-Xylenes                 | 1 | 45.7189  | 0 | 40  | 114 | 40 | 150 |
| o-Xylene                    | 1 | 25.1146  | 0 | 20  | 126 | 40 | 150 |
| trans-1,4-Dichloro-2-butene | 1 | 18.1171  | 0 | 20  | 91  | 10 | 150 |
| 1,3-Dichlorobenzene         | 1 | 20.6074  | 0 | 20  | 103 | 59 | 156 |
| 1,4-Dichlorobenzene         | 1 | 20.6876  | 0 | 20  | 103 | 18 | 190 |
| 1,2-Dichlorobenzene         | 1 | 19.8263  | 0 | 20  | 99  | 18 | 190 |
| Isopropylbenzene            | 1 | 23.5457  | 0 | 20  | 118 | 40 | 150 |
| Cyclohexanone               | 1 | 79.5468  | 0 | 100 | 80  | 1  | 300 |
| Camphene                    | 1 | 10.9957  | 0 | 20  | 55  | 20 | 150 |
| 1,2,3-Trichloropropane      | 1 | 21.9834  | 0 | 20  | 110 | 40 | 130 |
| 2-Chlorotoluene             | 1 | 25.8942  | 0 | 20  | 129 | 40 | 150 |
| p-Ethyltoluene              | 1 | 20.5093  | 0 | 20  | 103 | 10 | 200 |
| 4-Chlorotoluene             | 1 | 22.6827  | 0 | 20  | 113 | 40 | 150 |
| n-Propylbenzene             | 1 | 23.2273  | 0 | 20  | 116 | 40 | 150 |
| Bromobenzene                | 1 | 21.0712  | 0 | 20  | 105 | 40 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 27.5207  | 0 | 20  | 138 | 40 | 150 |
| Butyl methacrylate          | 1 | 28.5102  | 0 | 20  | 143 | 20 | 150 |
| t-Butylbenzene              | 1 | 22.4845  | 0 | 20  | 112 | 40 | 150 |
| 1,2,4-Trimethylbenzene      | 1 | 22.9892  | 0 | 20  | 115 | 40 | 150 |
| sec-Butylbenzene            | 1 | 23.222   | 0 | 20  | 116 | 40 | 150 |
| 4-Isopropyltoluene          | 1 | 23.1591  | 0 | 20  | 116 | 40 | 150 |
| n-Butylbenzene              | 1 | 23.9288  | 0 | 20  | 120 | 30 | 160 |
| p-Diethylbenzene            | 1 | 23.8343  | 0 | 20  | 119 | 10 | 200 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 22.8761  | 0 | 20  | 114 | 10 | 170 |
| 1,2-Dibromo-3-Chloropropane | 1 | 21.454   | 0 | 20  | 107 | 10 | 150 |
| Camphor                     | 1 | 145.7501 | 0 | 200 | 73  | 1  | 160 |
| Hexachlorobutadiene         | 1 | 23.2161  | 0 | 20  | 116 | 20 | 170 |
| 1,2,4-Trichlorobenzene      | 1 | 22.1884  | 0 | 20  | 111 | 20 | 160 |
| 1,2,3-Trichlorobenzene      | 1 | 20.1018  | 0 | 20  | 101 | 5  | 180 |
| Naphthalene                 | 1 | 21.0395  | 0 | 20  | 105 | 1  | 200 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0152**

**QC Batch: MBS73499**

|                                      |                        |                       |
|--------------------------------------|------------------------|-----------------------|
| <b>Data File</b>                     | <b>Sample ID:</b>      | <b>Analysis Date</b>  |
| Spike or Dup: 3M139076.D             | AD07121-007(MSD)       | 10/27/2018 3:02:00 PM |
| Duplicate(If applicable): 3M139075.D | AD07121-007(MS)        | 10/27/2018 2:44:00 PM |
| Inst Blank(If applicable):           |                        |                       |
| <b>Method: 624.1</b>                 | <b>Matrix: Aqueous</b> | <b>QC Type: MSD</b>   |

| Analyte:                              | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBS<br>Conc | RPD | Limit |
|---------------------------------------|--------|----------------------|-----------------------|-----|-------|
| Chlorodifluoromethane                 | 1      | 42.4217              | 38.5801               | 9.5 | 40    |
| Dichlorodifluoromethane               | 1      | 36.4507              | 28.0211               | 26  | 40    |
| Chloromethane                         | 1      | 37.8517              | 28.3391               | 29  | 60    |
| Bromomethane                          | 1      | 24.223               | 18.3729               | 27  | 61    |
| Vinyl Chloride                        | 1      | 23.7558              | 19.8582               | 18  | 66    |
| Chloroethane                          | 1      | 24.9992              | 21.2529               | 16  | 78    |
| Trichlorofluoromethane                | 1      | 18.1415              | 14.8161               | 20  | 84    |
| Ethyl ether                           | 1      | 17.1593              | 13.9969               | 20  | 40    |
| Furan                                 | 1      | 18.5489              | 14.6953               | 23  | 40    |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1      | 23.0234              | 18.432                | 22  | 40    |
| Methylene Chloride                    | 1      | 21.8838              | 17.9181               | 20  | 28    |
| Acrolein                              | 1      | 101.3997             | 85.778                | 17  | 60    |
| Acrylonitrile                         | 1      | 23.6012              | 19.7058               | 18  | 60    |
| Iodomethane                           | 1      | 18.3267              | 15.1672               | 19  | 40    |
| Acetone                               | 1      | 101.927              | 74.2432               | 31  | 40    |
| Carbon Disulfide                      | 1      | 19.6791              | 15.5261               | 24  | 40    |
| t-Butyl Alcohol                       | 1      | 82.3766              | 74.9586               | 9.4 | 40    |
| n-Hexane                              | 1      | 24.2332              | 18.0693               | 29  | 40    |
| Di-isopropyl-ether                    | 1      | 24.2403              | 19.8448               | 20  | 40    |
| 1,1-Dichloroethene                    | 1      | 21.5603              | 17.0881               | 23  | 32    |
| Methyl Acetate                        | 1      | 18.439               | 16.8441               | 9   | 40    |
| Methyl-t-butyl ether                  | 1      | 19.2756              | 15.7549               | 20  | 40    |
| 1,1-Dichloroethane                    | 1      | 21.3219              | 16.1393               | 28  | 40    |
| trans-1,2-Dichloroethene              | 1      | 18.8486              | 15.3872               | 20  | 45    |
| Ethyl-t-butyl ether                   | 1      | 22.2078              | 17.7697               | 22  | 40    |
| cis-1,2-Dichloroethene                | 1      | 20.8587              | 17.9346               | 15  | 40    |
| Bromochloromethane                    | 1      | 21.5329              | 17.0461               | 23  | 40    |
| 2,2-Dichloropropane                   | 1      | 23.1233              | 17.6248               | 27  | 40    |
| Ethyl acetate                         | 1      | 22.1607              | 20.0027               | 10  | 40    |
| 1,4-Dioxane                           | 1      | 783.0122             | 767.1236              | 2   | 40    |
| 1,1-Dichloropropene                   | 1      | 21.8834              | 18.0035               | 19  | 40    |
| Chloroform                            | 1      | 18.3827              | 14.3129               | 25  | 54    |
| Cyclohexane                           | 1      | 25.4821              | 19.5964               | 26  | 40    |
| 1,2-Dichloroethane                    | 1      | 23.0648              | 17.6292               | 27  | 49    |
| 2-Butanone                            | 1      | 21.4612              | 17.4313               | 21  | 40    |
| 1,1,1-Trichloroethane                 | 1      | 19.1883              | 15.2414               | 23  | 36    |
| Carbon Tetrachloride                  | 1      | 20.1647              | 15.5527               | 26  | 41    |
| Vinyl Acetate                         | 1      | 22.9663              | 19.8638               | 14  | 40    |
| Bromodichloromethane                  | 1      | 20.6796              | 15.9992               | 26  | 56    |
| Methylcyclohexane                     | 1      | 22.8313              | 18.3176               | 22  | 40    |
| Dibromomethane                        | 1      | 21.7175              | 17.3139               | 23  | 40    |
| 1,2-Dichloropropane                   | 1      | 23.5863              | 19.5334               | 19  | 55    |
| Trichloroethene                       | 1      | 19.7657              | 14.8936               | 28  | 48    |
| Benzene                               | 1      | 24.6303              | 19.3047               | 24  | 61    |
| tert-Amyl methyl ether                | 1      | 20.8047              | 16.9221               | 21  | 40    |
| Iso-propylacetate                     | 1      | 23.6009              | 20.0722               | 16  | 40    |
| Methyl methacrylate                   | 1      | 24.6947              | 19.1434               | 25  | 40    |
| Dibromochloromethane                  | 1      | 18.7801              | 14.5952               | 25  | 50    |
| 2-Chloroethylvinylether               | 1      | 0                    | 0                     | NA  | 71    |
| cis-1,3-Dichloropropene               | 1      | 21.3466              | 17.6815               | 19  | 58    |
| trans-1,3-Dichloropropene             | 1      | 20.2032              | 15.9486               | 24  | 56    |
| Ethyl methacrylate                    | 1      | 23.2712              | 18.5851               | 22  | 40    |
| 1,1,2-Trichloroethane                 | 1      | 24.9329              | 18.5297               | 29  | 45    |
| 1,2-Dibromoethane                     | 1      | 18.4252              | 15.4811               | 17  | 40    |
| 1,3-Dichloropropane                   | 1      | 24.7703              | 21.7935               | 13  | 40    |
| 4-Methyl-2-Pentanone                  | 1      | 22.4048              | 20.4116               | 9.3 | 40    |
| 2-Hexanone                            | 1      | 24.6172              | 19.8074               | 22  | 40    |
| Tetrachloroethene                     | 1      | 25.7835              | 18.784                | 31  | 39    |
| Toluene                               | 1      | 21.1436              | 16.7223               | 23  | 41    |
| 1,1,1,2-Tetrachloroethane             | 1      | 24.1578              | 20.7711               | 15  | 40    |
| Chlorobenzene                         | 1      | 20.738               | 15.4894               | 29  | 53    |
| n-Butyl acrylate                      | 1      | 25.9197              | 21.3015               | 20  | 40    |
| n-Amyl acetate                        | 1      | 27.6269              | 21.7995               | 24  | 40    |

# Form3

## RPD Data Laboratory Limits

QC Batch: MBS73499

|                             |   |          |          |      |    |
|-----------------------------|---|----------|----------|------|----|
| Bromoform                   | 1 | 19.9982  | 14.9624  | 29   | 42 |
| Ethylbenzene                | 1 | 21.8971  | 21.189   | 3.3  | 63 |
| 1,1,2,2-Tetrachloroethane   | 1 | 22.079   | 17.1406  | 25   | 61 |
| Styrene                     | 1 | 24.3918  | 18.0436  | 30   | 40 |
| m&p-Xylenes                 | 1 | 45.7189  | 37.5457  | 20   | 40 |
| o-Xylene                    | 1 | 25.1146  | 18.53    | 30   | 40 |
| trans-1,4-Dichloro-2-butene | 1 | 18.1171  | 17.462   | 3.7  | 40 |
| 1,3-Dichlorobenzene         | 1 | 20.6074  | 16.5417  | 22   | 43 |
| 1,4-Dichlorobenzene         | 1 | 20.6876  | 15.82    | 27   | 57 |
| 1,2-Dichlorobenzene         | 1 | 19.8263  | 15.5574  | 24   | 57 |
| Isopropylbenzene            | 1 | 23.5457  | 18.6483  | 23   | 40 |
| Cyclohexanone               | 1 | 79.5468  | 81.0951  | 1.9  | 40 |
| Camphene                    | 1 | 10.9957  | 9.607    | 13   | 40 |
| 1,2,3-Trichloropropane      | 1 | 21.9834  | 17.7715  | 21   | 40 |
| 2-Chlorotoluene             | 1 | 25.8942  | 19.1001  | 30   | 40 |
| p-Ethyltoluene              | 1 | 20.5093  | 15.3499  | 29   | 40 |
| 4-Chlorotoluene             | 1 | 22.6827  | 17.1512  | 28   | 40 |
| n-Propylbenzene             | 1 | 23.2273  | 18.7427  | 21   | 40 |
| Bromobenzene                | 1 | 21.0712  | 15.7281  | 29   | 40 |
| 1,3,5-Trimethylbenzene      | 1 | 27.5207  | 17.6971  | 43 * | 40 |
| Butyl methacrylate          | 1 | 28.5102  | 21.4917  | 28   | 40 |
| t-Butylbenzene              | 1 | 22.4845  | 17.3716  | 26   | 40 |
| 1,2,4-Trimethylbenzene      | 1 | 22.9892  | 17.8914  | 25   | 40 |
| sec-Butylbenzene            | 1 | 23.222   | 19.067   | 20   | 40 |
| 4-Isopropyltoluene          | 1 | 23.1591  | 17.8214  | 26   | 40 |
| n-Butylbenzene              | 1 | 23.9288  | 19.029   | 23   | 40 |
| p-Diethylbenzene            | 1 | 23.8343  | 17.5927  | 30   | 40 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 22.8761  | 19.2787  | 17   | 40 |
| 1,2-Dibromo-3-Chloropropane | 1 | 21.454   | 17.7082  | 19   | 40 |
| Camphor                     | 1 | 145.7501 | 121.7778 | 18   | 40 |
| Hexachlorobutadiene         | 1 | 23.2161  | 15.9629  | 37   | 40 |
| 1,2,4-Trichlorobenzene      | 1 | 22.1884  | 18.707   | 17   | 40 |
| 1,2,3-Trichlorobenzene      | 1 | 20.1018  | 16.6859  | 19   | 40 |
| Naphthalene                 | 1 | 21.0395  | 17.3346  | 19   | 40 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

**Form3**  
**Recovery Data Laboratory Limits**  
 QC Batch: MBS73545

| Data File                             |     | Sample ID:      |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|-----------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 1M113043.D              |     | AD07338-001(MS) |             | 11/1/2018 9:48:00 AM  |          |             |             |
| Non Spike(If applicable): 1M113048.D  |     | AD07338-001     |             | 11/1/2018 11:35:00 AM |          |             |             |
| Inst Blank(If applicable):            |     |                 |             |                       |          |             |             |
| Method: 8260C                         |     | Matrix: Soil    |             | QC Type: MS           |          |             |             |
| Analyte:                              | Col | Spike Conc      | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 84.2555         | 0           | 50                    | 169 *    | 20          | 130         |
| Dichlorodifluoromethane               | 1   | 43.7699         | 0           | 50                    | 88       | 20          | 130         |
| Chloromethane                         | 1   | 33.9253         | 0           | 50                    | 68       | 20          | 130         |
| Bromomethane                          | 1   | 35.1872         | 0           | 50                    | 70       | 20          | 130         |
| Vinyl Chloride                        | 1   | 35.1868         | 0           | 50                    | 70       | 20          | 130         |
| Chloroethane                          | 1   | 33.9272         | 0           | 50                    | 68       | 20          | 130         |
| Trichlorofluoromethane                | 1   | 33.6334         | 0           | 50                    | 67       | 20          | 130         |
| Ethyl ether                           | 1   | 22.0052         | 0           | 50                    | 44 *     | 50          | 130         |
| Furan                                 | 1   | 22.2835         | 0           | 50                    | 45 *     | 50          | 130         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 41.7796         | 0           | 50                    | 84       | 50          | 130         |
| Methylene Chloride                    | 1   | 26.9617         | 0           | 50                    | 54       | 50          | 130         |
| Acrolein                              | 1   | 126.5544        | 0           | 200                   | 63       | 20          | 130         |
| Acrylonitrile                         | 1   | 18.6301         | 0           | 50                    | 37       | 20          | 130         |
| Iodomethane                           | 1   | 24.3447         | 0           | 50                    | 49 *     | 50          | 130         |
| Acetone                               | 1   | 121.5996        | 0           | 200                   | 61       | 20          | 130         |
| Carbon Disulfide                      | 1   | 34.1223         | 0           | 50                    | 68       | 50          | 130         |
| t-Butyl Alcohol                       | 1   | 111.0054        | 0           | 200                   | 56       | 20          | 130         |
| n-Hexane                              | 1   | 53.6151         | 0           | 50                    | 107      | 50          | 130         |
| Di-isopropyl-ether                    | 1   | 25.4223         | 0           | 50                    | 51       | 50          | 130         |
| 1,1-Dichloroethene                    | 1   | 34.0425         | 0           | 50                    | 68       | 50          | 130         |
| Methyl Acetate                        | 1   | 23.2796         | 0           | 50                    | 47 *     | 50          | 130         |
| Methyl-t-butyl ether                  | 1   | 21.4623         | 0           | 50                    | 43 *     | 50          | 130         |
| 1,1-Dichloroethane                    | 1   | 32.7737         | 0           | 50                    | 66       | 50          | 130         |
| trans-1,2-Dichloroethene              | 1   | 38.7557         | 0           | 50                    | 78       | 50          | 130         |
| Ethyl-t-butyl ether                   | 1   | 24.766          | 0           | 50                    | 50       | 50          | 130         |
| cis-1,2-Dichloroethene                | 1   | 35.5524         | 0           | 50                    | 71       | 50          | 130         |
| Bromochloromethane                    | 1   | 33.5644         | 0           | 50                    | 67       | 50          | 130         |
| 2,2-Dichloropropane                   | 1   | 38.0358         | 0           | 50                    | 76       | 50          | 130         |
| Ethyl acetate                         | 1   | 37.3948         | 0           | 50                    | 75       | 50          | 130         |
| 1,4-Dioxane                           | 1   | 1370.297        | 0           | 2500                  | 55       | 50          | 130         |
| 1,1-Dichloropropene                   | 1   | 37.1117         | 0           | 50                    | 74       | 50          | 130         |
| Chloroform                            | 1   | 26.05           | 0           | 50                    | 52       | 50          | 130         |
| Cyclohexane                           | 1   | 35.1027         | 0           | 50                    | 70       | 50          | 130         |
| 1,2-Dichloroethane                    | 1   | 29.0798         | 0           | 50                    | 58       | 50          | 130         |
| 2-Butanone                            | 1   | 43.6267         | 0           | 50                    | 87       | 20          | 130         |
| 1,1,1-Trichloroethane                 | 1   | 32.9858         | 0           | 50                    | 66       | 50          | 130         |
| Carbon Tetrachloride                  | 1   | 36.0924         | 0           | 50                    | 72       | 50          | 130         |
| Vinyl Acetate                         | 1   | 27.4764         | 0           | 50                    | 55       | 50          | 130         |
| Bromodichloromethane                  | 1   | 36.5018         | 0           | 50                    | 73       | 50          | 130         |
| Methylcyclohexane                     | 1   | 42.7215         | 0           | 50                    | 85       | 50          | 130         |
| Dibromomethane                        | 1   | 38.6707         | 0           | 50                    | 77       | 50          | 130         |
| 1,2-Dichloropropane                   | 1   | 28.9596         | 0           | 50                    | 58       | 50          | 130         |
| Trichloroethene                       | 1   | 33.9792         | 0           | 50                    | 68       | 50          | 130         |
| Benzene                               | 1   | 33.3789         | 0           | 50                    | 67       | 50          | 130         |
| tert-Amyl methyl ether                | 1   | 26.2905         | 0           | 50                    | 53       | 50          | 130         |
| Iso-propylacetate                     | 1   | 20.9766         | 0           | 50                    | 42 *     | 50          | 130         |
| Methyl methacrylate                   | 1   | 28.8917         | 0           | 50                    | 58       | 50          | 130         |
| Dibromochloromethane                  | 1   | 30.7852         | 0           | 50                    | 62       | 50          | 130         |
| 2-Chloroethylvinylether               | 1   | 24.1936         | 0           | 50                    | 48 *     | 50          | 130         |
| cis-1,3-Dichloropropene               | 1   | 32.3935         | 0           | 50                    | 65       | 50          | 130         |
| trans-1,3-Dichloropropene             | 1   | 29.9927         | 0           | 50                    | 60       | 50          | 130         |
| Ethyl methacrylate                    | 1   | 22.842          | 0           | 50                    | 46 *     | 50          | 130         |
| 1,1,2-Trichloroethane                 | 1   | 24.2081         | 0           | 50                    | 48 *     | 50          | 130         |
| 1,2-Dibromoethane                     | 1   | 30.4106         | 0           | 50                    | 61       | 50          | 130         |
| 1,3-Dichloropropane                   | 1   | 27.532          | 0           | 50                    | 55       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 27.5913         | 0           | 50                    | 55       | 20          | 130         |
| 2-Hexanone                            | 1   | 24.1494         | 0           | 50                    | 48       | 20          | 130         |
| Tetrachloroethene                     | 1   | 31.8591         | 0           | 50                    | 64       | 50          | 130         |
| Toluene                               | 1   | 31.3534         | 0           | 50                    | 63       | 50          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 29.207          | 0           | 50                    | 58       | 50          | 130         |
| Chlorobenzene                         | 1   | 28.8205         | 0           | 50                    | 58       | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73545

|                             |   |          |   |     |     |    |     |
|-----------------------------|---|----------|---|-----|-----|----|-----|
| n-Butyl acrylate            | 1 | 31.8234  | 0 | 50  | 64  | 50 | 130 |
| n-Amyl acetate              | 1 | 25.2465  | 0 | 50  | 50  | 50 | 130 |
| Bromoform                   | 1 | 27.288   | 0 | 50  | 55  | 20 | 130 |
| Ethylbenzene                | 1 | 41.1591  | 0 | 50  | 82  | 50 | 130 |
| 1,1,2,2-Tetrachloroethane   | 1 | 33.4623  | 0 | 50  | 67  | 50 | 130 |
| Styrene                     | 1 | 38.3252  | 0 | 50  | 77  | 50 | 130 |
| m&p-Xylenes                 | 1 | 85.0813  | 0 | 100 | 85  | 50 | 130 |
| o-Xylene                    | 1 | 36.5498  | 0 | 50  | 73  | 50 | 130 |
| trans-1,4-Dichloro-2-butene | 1 | 38.9322  | 0 | 50  | 78  | 20 | 130 |
| 1,3-Dichlorobenzene         | 1 | 33.1881  | 0 | 50  | 66  | 50 | 130 |
| 1,4-Dichlorobenzene         | 1 | 32.5676  | 0 | 50  | 65  | 50 | 130 |
| 1,2-Dichlorobenzene         | 1 | 31.3035  | 0 | 50  | 63  | 50 | 130 |
| Isopropylbenzene            | 1 | 37.7953  | 0 | 50  | 76  | 50 | 130 |
| Cyclohexanone               | 1 | 294.0015 | 0 | 250 | 118 | 50 | 130 |
| Camphene                    | 1 | 44.6531  | 0 | 50  | 89  | 50 | 130 |
| 1,2,3-Trichloropropane      | 1 | 33.8997  | 0 | 50  | 68  | 50 | 130 |
| 2-Chlorotoluene             | 1 | 33.4491  | 0 | 50  | 67  | 50 | 130 |
| p-Ethyltoluene              | 1 | 32.3763  | 0 | 50  | 65  | 50 | 130 |
| 4-Chlorotoluene             | 1 | 34.8132  | 0 | 50  | 70  | 50 | 130 |
| n-Propylbenzene             | 1 | 38.2526  | 0 | 50  | 77  | 50 | 130 |
| Bromobenzene                | 1 | 45.5667  | 0 | 50  | 91  | 50 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 31.3568  | 0 | 50  | 63  | 50 | 130 |
| Butyl methacrylate          | 1 | 30.2142  | 0 | 50  | 60  | 50 | 130 |
| t-Butylbenzene              | 1 | 31.1502  | 0 | 50  | 62  | 50 | 130 |
| 1,2,4-Trimethylbenzene      | 1 | 35.4502  | 0 | 50  | 71  | 50 | 130 |
| sec-Butylbenzene            | 1 | 37.9862  | 0 | 50  | 76  | 50 | 130 |
| 4-Isopropyltoluene          | 1 | 32.693   | 0 | 50  | 65  | 50 | 130 |
| n-Butylbenzene              | 1 | 33.5914  | 0 | 50  | 67  | 50 | 130 |
| p-Diethylbenzene            | 1 | 35.4999  | 0 | 50  | 71  | 50 | 130 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 31.5122  | 0 | 50  | 63  | 50 | 130 |
| 1,2-Dibromo-3-Chloropropane | 1 | 31.458   | 0 | 50  | 63  | 50 | 130 |
| Camphor                     | 1 | 260.0808 | 0 | 500 | 52  | 50 | 130 |
| Hexachlorobutadiene         | 1 | 38.6066  | 0 | 50  | 77  | 50 | 130 |
| 1,2,4-Trichlorobenzene      | 1 | 37.4638  | 0 | 50  | 75  | 50 | 130 |
| 1,2,3-Trichlorobenzene      | 1 | 30.147   | 0 | 50  | 60  | 50 | 130 |
| Naphthalene                 | 1 | 27.3471  | 0 | 50  | 55  | 50 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

Form3  
Recovery Data Laboratory Limits  
QC Batch: MBS73545

8101509 0156

| Data File                             |     | Sample ID:       |             | Analysis Date         |          |             |             |
|---------------------------------------|-----|------------------|-------------|-----------------------|----------|-------------|-------------|
| Spike or Dup: 1M113045.D              |     | AD07338-001(MSD) |             | 11/1/2018 10:30:00 AM |          |             |             |
| Non Spike(If applicable): 1M113048.D  |     | AD07338-001      |             | 11/1/2018 11:35:00 AM |          |             |             |
| Inst Blank(If applicable):            |     |                  |             |                       |          |             |             |
| Method: 8260C                         |     | Matrix: Soil     |             | QC Type: MSD          |          |             |             |
| Analyte:                              | Col | Spike Conc       | Sample Conc | Expected Conc         | Recovery | Lower Limit | Upper Limit |
| Chlorodifluoromethane                 | 1   | 65.7533          | 0           | 50                    | 132 *    | 20          | 130         |
| Dichlorodifluoromethane               | 1   | 68.0187          | 0           | 50                    | 136 *    | 20          | 130         |
| Chloromethane                         | 1   | 53.883           | 0           | 50                    | 108      | 20          | 130         |
| Bromomethane                          | 1   | 56.1812          | 0           | 50                    | 112      | 20          | 130         |
| Vinyl Chloride                        | 1   | 53.6806          | 0           | 50                    | 107      | 20          | 130         |
| Chloroethane                          | 1   | 57.4245          | 0           | 50                    | 115      | 20          | 130         |
| Trichlorofluoromethane                | 1   | 55.8908          | 0           | 50                    | 112      | 20          | 130         |
| Ethyl ether                           | 1   | 46.9836          | 0           | 50                    | 94       | 50          | 130         |
| Furan                                 | 1   | 44.4445          | 0           | 50                    | 89       | 50          | 130         |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1   | 67.7509          | 0           | 50                    | 136 *    | 50          | 130         |
| Methylene Chloride                    | 1   | 53.4491          | 0           | 50                    | 107      | 50          | 130         |
| Acrolein                              | 1   | 205.9678         | 0           | 200                   | 103      | 20          | 130         |
| Acrylonitrile                         | 1   | 9.3449           | 0           | 50                    | 19 *     | 20          | 130         |
| Iodomethane                           | 1   | 44.8799          | 0           | 50                    | 90       | 50          | 130         |
| Acetone                               | 1   | 202.0627         | 0           | 200                   | 101      | 20          | 130         |
| Carbon Disulfide                      | 1   | 60.1932          | 0           | 50                    | 120      | 50          | 130         |
| t-Butyl Alcohol                       | 1   | 238.96           | 0           | 200                   | 119      | 20          | 130         |
| n-Hexane                              | 1   | 69.1864          | 0           | 50                    | 138 *    | 50          | 130         |
| Di-isopropyl-ether                    | 1   | 53.1877          | 0           | 50                    | 106      | 50          | 130         |
| 1,1-Dichloroethene                    | 1   | 52.6244          | 0           | 50                    | 105      | 50          | 130         |
| Methyl Acetate                        | 1   | 38.6838          | 0           | 50                    | 77       | 50          | 130         |
| Methyl-t-butyl ether                  | 1   | 45.3377          | 0           | 50                    | 91       | 50          | 130         |
| 1,1-Dichloroethane                    | 1   | 59.3209          | 0           | 50                    | 119      | 50          | 130         |
| trans-1,2-Dichloroethene              | 1   | 60.9137          | 0           | 50                    | 122      | 50          | 130         |
| Ethyl-t-butyl ether                   | 1   | 52.0298          | 0           | 50                    | 104      | 50          | 130         |
| cis-1,2-Dichloroethene                | 1   | 65.085           | 0           | 50                    | 130      | 50          | 130         |
| Bromochloromethane                    | 1   | 45.9289          | 0           | 50                    | 92       | 50          | 130         |
| 2,2-Dichloropropane                   | 1   | 64.5039          | 0           | 50                    | 129      | 50          | 130         |
| Ethyl acetate                         | 1   | 72.9995          | 0           | 50                    | 146 *    | 50          | 130         |
| 1,4-Dioxane                           | 1   | 2461.14          | 0           | 2500                  | 98       | 50          | 130         |
| 1,1-Dichloropropene                   | 1   | 66.6806          | 0           | 50                    | 133 *    | 50          | 130         |
| Chloroform                            | 1   | 50.784           | 0           | 50                    | 102      | 50          | 130         |
| Cyclohexane                           | 1   | 72.3435          | 0           | 50                    | 145 *    | 50          | 130         |
| 1,2-Dichloroethane                    | 1   | 49.7887          | 0           | 50                    | 100      | 50          | 130         |
| 2-Butanone                            | 1   | 86.281           | 0           | 50                    | 173 *    | 20          | 130         |
| 1,1,1-Trichloroethane                 | 1   | 64.8128          | 0           | 50                    | 130      | 50          | 130         |
| Carbon Tetrachloride                  | 1   | 67.6699          | 0           | 50                    | 135 *    | 50          | 130         |
| Vinyl Acetate                         | 1   | 45.2778          | 0           | 50                    | 91       | 50          | 130         |
| Bromodichloromethane                  | 1   | 49.6513          | 0           | 50                    | 99       | 50          | 130         |
| Methylcyclohexane                     | 1   | 78.1361          | 0           | 50                    | 156 *    | 50          | 130         |
| Dibromomethane                        | 1   | 49.7121          | 0           | 50                    | 99       | 50          | 130         |
| 1,2-Dichloropropane                   | 1   | 40.9432          | 0           | 50                    | 82       | 50          | 130         |
| Trichloroethene                       | 1   | 44.9391          | 0           | 50                    | 90       | 50          | 130         |
| Benzene                               | 1   | 57.6308          | 0           | 50                    | 115      | 50          | 130         |
| tert-Amyl methyl ether                | 1   | 47.1531          | 0           | 50                    | 94       | 50          | 130         |
| Iso-propylacetate                     | 1   | 37.9255          | 0           | 50                    | 76       | 50          | 130         |
| Methyl methacrylate                   | 1   | 49.6752          | 0           | 50                    | 99       | 50          | 130         |
| Dibromochloromethane                  | 1   | 46.1509          | 0           | 50                    | 92       | 50          | 130         |
| 2-Chloroethylvinylether               | 1   | 37.3971          | 0           | 50                    | 75       | 50          | 130         |
| cis-1,3-Dichloropropene               | 1   | 47.2571          | 0           | 50                    | 95       | 50          | 130         |
| trans-1,3-Dichloropropene             | 1   | 41.0905          | 0           | 50                    | 82       | 50          | 130         |
| Ethyl methacrylate                    | 1   | 41.4389          | 0           | 50                    | 83       | 50          | 130         |
| 1,1,2-Trichloroethane                 | 1   | 41.5149          | 0           | 50                    | 83       | 50          | 130         |
| 1,2-Dibromoethane                     | 1   | 48.0901          | 0           | 50                    | 96       | 50          | 130         |
| 1,3-Dichloropropane                   | 1   | 43.0112          | 0           | 50                    | 86       | 50          | 130         |
| 4-Methyl-2-Pentanone                  | 1   | 44.8073          | 0           | 50                    | 90       | 20          | 130         |
| 2-Hexanone                            | 1   | 40.9649          | 0           | 50                    | 82       | 20          | 130         |
| Tetrachloroethene                     | 1   | 55.8329          | 0           | 50                    | 112      | 50          | 130         |
| Toluene                               | 1   | 50.5782          | 0           | 50                    | 101      | 50          | 130         |
| 1,1,1,2-Tetrachloroethane             | 1   | 50.1406          | 0           | 50                    | 100      | 50          | 130         |
| Chlorobenzene                         | 1   | 56.5221          | 0           | 50                    | 113      | 50          | 130         |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits

## Recovery Data Laboratory Limits

QC Batch: MBS73545

|                             |   |          |   |     |      |    |     |
|-----------------------------|---|----------|---|-----|------|----|-----|
| n-Butyl acrylate            | 1 | 41.2404  | 0 | 50  | 82   | 50 | 130 |
| n-Amyl acetate              | 1 | 41.1738  | 0 | 50  | 82   | 50 | 130 |
| Bromoform                   | 1 | 40.7825  | 0 | 50  | 82   | 20 | 130 |
| Ethylbenzene                | 1 | 57.1549  | 0 | 50  | 114  | 50 | 130 |
| 1,1,2,2-Tetrachloroethane   | 1 | 38.4035  | 0 | 50  | 77   | 50 | 130 |
| Styrene                     | 1 | 56.9133  | 0 | 50  | 114  | 50 | 130 |
| m&p-Xylenes                 | 1 | 123.3033 | 0 | 100 | 123  | 50 | 130 |
| o-Xylene                    | 1 | 57.4319  | 0 | 50  | 115  | 50 | 130 |
| trans-1,4-Dichloro-2-butene | 1 | 64.5637  | 0 | 50  | 129  | 20 | 130 |
| 1,3-Dichlorobenzene         | 1 | 54.9566  | 0 | 50  | 110  | 50 | 130 |
| 1,4-Dichlorobenzene         | 1 | 51.9768  | 0 | 50  | 104  | 50 | 130 |
| 1,2-Dichlorobenzene         | 1 | 50.8051  | 0 | 50  | 102  | 50 | 130 |
| Isopropylbenzene            | 1 | 61.9076  | 0 | 50  | 124  | 50 | 130 |
| Cyclohexanone               | 1 | 174.2879 | 0 | 250 | 70   | 50 | 130 |
| Camphene                    | 1 | 73.1893  | 0 | 50  | 146* | 50 | 130 |
| 1,2,3-Trichloropropane      | 1 | 50.9732  | 0 | 50  | 102  | 50 | 130 |
| 2-Chlorotoluene             | 1 | 58.1589  | 0 | 50  | 116  | 50 | 130 |
| p-Ethyltoluene              | 1 | 66.536   | 0 | 50  | 133* | 50 | 130 |
| 4-Chlorotoluene             | 1 | 61.0442  | 0 | 50  | 122  | 50 | 130 |
| n-Propylbenzene             | 1 | 62.9599  | 0 | 50  | 126  | 50 | 130 |
| Bromobenzene                | 1 | 23.288   | 0 | 50  | 47*  | 50 | 130 |
| 1,3,5-Trimethylbenzene      | 1 | 49.045   | 0 | 50  | 98   | 50 | 130 |
| Butyl methacrylate          | 1 | 52.1017  | 0 | 50  | 104  | 50 | 130 |
| t-Butylbenzene              | 1 | 51.7507  | 0 | 50  | 104  | 50 | 130 |
| 1,2,4-Trimethylbenzene      | 1 | 62.7536  | 0 | 50  | 126  | 50 | 130 |
| sec-Butylbenzene            | 1 | 69.9217  | 0 | 50  | 140* | 50 | 130 |
| 4-Isopropyltoluene          | 1 | 54.4702  | 0 | 50  | 109  | 50 | 130 |
| n-Butylbenzene              | 1 | 56.2403  | 0 | 50  | 112  | 50 | 130 |
| p-Diethylbenzene            | 1 | 76.5527  | 0 | 50  | 153* | 50 | 130 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 67.5647  | 0 | 50  | 135* | 50 | 130 |
| 1,2-Dibromo-3-Chloropropane | 1 | 44.7373  | 0 | 50  | 89   | 50 | 130 |
| Camphor                     | 1 | 414.318  | 0 | 500 | 83   | 50 | 130 |
| Hexachlorobutadiene         | 1 | 63.0874  | 0 | 50  | 126  | 50 | 130 |
| 1,2,4-Trichlorobenzene      | 1 | 58.4156  | 0 | 50  | 117  | 50 | 130 |
| 1,2,3-Trichlorobenzene      | 1 | 49.0535  | 0 | 50  | 98   | 50 | 130 |
| Naphthalene                 | 1 | 43.7731  | 0 | 50  | 88   | 50 | 130 |

\* - Indicates outside of limits

# - Indicates outside of standard limits but within method exceedance limits



**Form3**  
**RPD Data Laboratory Limits**

QC Batch: MBS73545

|                                      |                  |                       |
|--------------------------------------|------------------|-----------------------|
| Data File                            | Sample ID:       | Analysis Date         |
| Spike or Dup: 1M113045.D             | AD07338-001(MSD) | 11/1/2018 10:30:00 AM |
| Duplicate(If applicable): 1M113043.D | AD07338-001(MS)  | 11/1/2018 9:48:00 AM  |
| Inst Blank(If applicable):           |                  |                       |
| Method: 8260C                        | Matrix: Soil     | QC Type: MSD          |

| Analyte:                              | Column | Dup/MSD/MBSD<br>Conc | Sample/MS/MBSD<br>Conc | RPD | Limit |
|---------------------------------------|--------|----------------------|------------------------|-----|-------|
| Chlorodifluoromethane                 | 1      | 65.7533              | 84.2555                | 25  | 30    |
| Dichlorodifluoromethane               | 1      | 68.0187              | 43.7699                | 43* | 30    |
| Chloromethane                         | 1      | 53.883               | 33.9253                | 45* | 30    |
| Bromomethane                          | 1      | 56.1812              | 35.1872                | 46* | 30    |
| Vinyl Chloride                        | 1      | 53.6806              | 35.1868                | 42* | 40    |
| Chloroethane                          | 1      | 57.4245              | 33.9272                | 51* | 30    |
| Trichlorofluoromethane                | 1      | 55.8908              | 33.6334                | 50* | 30    |
| Ethyl ether                           | 1      | 46.9836              | 22.0052                | 72* | 30    |
| Furan                                 | 1      | 44.4445              | 22.2835                | 66* | 30    |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1      | 67.7509              | 41.7796                | 47* | 30    |
| Methylene Chloride                    | 1      | 53.4491              | 26.9617                | 66* | 30    |
| Acrolein                              | 1      | 205.9678             | 126.5544               | 48* | 30    |
| Acrylonitrile                         | 1      | 9.3449               | 18.6301                | 66* | 30    |
| Iodomethane                           | 1      | 44.8799              | 24.3447                | 59* | 30    |
| Acetone                               | 1      | 202.0627             | 121.5996               | 50* | 30    |
| Carbon Disulfide                      | 1      | 60.1932              | 34.1223                | 55* | 30    |
| t-Butyl Alcohol                       | 1      | 238.96               | 111.0054               | 73* | 30    |
| n-Hexane                              | 1      | 69.1864              | 53.6151                | 25  | 30    |
| Di-isopropyl-ether                    | 1      | 53.1877              | 25.4223                | 71* | 30    |
| 1,1-Dichloroethene                    | 1      | 52.6244              | 34.0425                | 43* | 40    |
| Methyl Acetate                        | 1      | 38.6838              | 23.2796                | 50* | 30    |
| Methyl-t-butyl ether                  | 1      | 45.3377              | 21.4623                | 71* | 30    |
| 1,1-Dichloroethane                    | 1      | 59.3209              | 32.7737                | 58* | 40    |
| trans-1,2-Dichloroethene              | 1      | 60.9137              | 38.7557                | 44* | 30    |
| Ethyl-t-butyl ether                   | 1      | 52.0298              | 24.766                 | 71* | 30    |
| cis-1,2-Dichloroethene                | 1      | 65.085               | 35.5524                | 59* | 30    |
| Bromochloromethane                    | 1      | 45.9289              | 33.5644                | 31* | 30    |
| 2,2-Dichloropropane                   | 1      | 64.5039              | 38.0358                | 52* | 30    |
| Ethyl acetate                         | 1      | 72.9995              | 37.3948                | 65* | 30    |
| 1,4-Dioxane                           | 1      | 2461.14              | 1370.297               | 57* | 30    |
| 1,1-Dichloropropene                   | 1      | 66.6806              | 37.1117                | 57* | 30    |
| Chloroform                            | 1      | 50.784               | 26.05                  | 64* | 40    |
| Cyclohexane                           | 1      | 72.3435              | 35.1027                | 69* | 30    |
| 1,2-Dichloroethane                    | 1      | 49.7887              | 29.0798                | 53* | 40    |
| 2-Butanone                            | 1      | 86.281               | 43.6267                | 66* | 40    |
| 1,1,1-Trichloroethane                 | 1      | 64.8128              | 32.9858                | 65* | 30    |
| Carbon Tetrachloride                  | 1      | 67.6699              | 36.0924                | 61* | 40    |
| Vinyl Acetate                         | 1      | 45.2778              | 27.4764                | 49* | 30    |
| Bromodichloromethane                  | 1      | 49.6513              | 36.5018                | 31* | 30    |
| Methylcyclohexane                     | 1      | 78.1361              | 42.7215                | 59* | 30    |
| Dibromomethane                        | 1      | 49.7121              | 38.6707                | 25  | 30    |
| 1,2-Dichloropropane                   | 1      | 40.9432              | 28.9596                | 34* | 30    |
| Trichloroethene                       | 1      | 44.9391              | 33.9792                | 28  | 40    |
| Benzene                               | 1      | 57.6308              | 33.3789                | 53* | 40    |
| tert-Amyl methyl ether                | 1      | 47.1531              | 26.2905                | 57* | 30    |
| Iso-propylacetate                     | 1      | 37.9255              | 20.9766                | 58* | 30    |
| Methyl methacrylate                   | 1      | 49.6752              | 28.8917                | 53* | 30    |
| Dibromochloromethane                  | 1      | 46.1509              | 30.7852                | 40* | 30    |
| 2-Chloroethylvinylether               | 1      | 37.3971              | 24.1936                | 43* | 30    |
| cis-1,3-Dichloropropene               | 1      | 47.2571              | 32.3935                | 37* | 30    |
| trans-1,3-Dichloropropene             | 1      | 41.0905              | 29.9927                | 31* | 30    |
| Ethyl methacrylate                    | 1      | 41.4389              | 22.842                 | 58* | 30    |
| 1,1,2-Trichloroethane                 | 1      | 41.5149              | 24.2081                | 53* | 30    |
| 1,2-Dibromoethane                     | 1      | 48.0901              | 30.4106                | 45* | 30    |
| 1,3-Dichloropropane                   | 1      | 43.0112              | 27.532                 | 44* | 30    |
| 4-Methyl-2-Pentanone                  | 1      | 44.8073              | 27.5913                | 48* | 30    |
| 2-Hexanone                            | 1      | 40.9649              | 24.1494                | 52* | 30    |
| Tetrachloroethene                     | 1      | 55.8329              | 31.8591                | 55* | 40    |
| Toluene                               | 1      | 50.5782              | 31.3534                | 47* | 40    |
| 1,1,1,2-Tetrachloroethane             | 1      | 50.1406              | 29.207                 | 53* | 30    |
| Chlorobenzene                         | 1      | 56.5221              | 28.8205                | 65* | 40    |
| n-Butyl acrylate                      | 1      | 41.2404              | 31.8234                | 26  | 30    |
| n-Amyl acetate                        | 1      | 41.1738              | 25.2465                | 48* | 30    |

**Form3**  
**RPD Data Laboratory Limits**

**8101509 0159**

QC Batch: MBS73545

|                             |   |          |          |      |    |
|-----------------------------|---|----------|----------|------|----|
| Bromoform                   | 1 | 40.7825  | 27.288   | 40 * | 30 |
| Ethylbenzene                | 1 | 57.1549  | 41.1591  | 33 * | 30 |
| 1,1,2,2-Tetrachloroethane   | 1 | 38.4035  | 33.4623  | 14   | 30 |
| Styrene                     | 1 | 56.9133  | 38.3252  | 39 * | 30 |
| m&p-Xylenes                 | 1 | 123.3033 | 85.0813  | 37 * | 30 |
| o-Xylene                    | 1 | 57.4319  | 36.5498  | 44 * | 30 |
| trans-1,4-Dichloro-2-butene | 1 | 64.5637  | 38.9322  | 50 * | 30 |
| 1,3-Dichlorobenzene         | 1 | 54.9566  | 33.1881  | 49 * | 30 |
| 1,4-Dichlorobenzene         | 1 | 51.9768  | 32.5676  | 46 * | 40 |
| 1,2-Dichlorobenzene         | 1 | 50.8051  | 31.3035  | 48 * | 40 |
| Isopropylbenzene            | 1 | 61.9076  | 37.7953  | 48 * | 30 |
| Cyclohexanone               | 1 | 174.2879 | 294.0015 | 51 * | 30 |
| Camphene                    | 1 | 73.1893  | 44.6531  | 48 * | 30 |
| 1,2,3-Trichloropropane      | 1 | 50.9732  | 33.8997  | 40 * | 30 |
| 2-Chlorotoluene             | 1 | 58.1589  | 33.4491  | 54 * | 30 |
| p-Ethyltoluene              | 1 | 66.536   | 32.3763  | 69 * | 30 |
| 4-Chlorotoluene             | 1 | 61.0442  | 34.8132  | 55 * | 30 |
| n-Propylbenzene             | 1 | 62.9599  | 38.2526  | 49 * | 40 |
| Bromobenzene                | 1 | 23.288   | 45.5667  | 65 * | 30 |
| 1,3,5-Trimethylbenzene      | 1 | 49.045   | 31.3568  | 44 * | 30 |
| Butyl methacrylate          | 1 | 52.1017  | 30.2142  | 53 * | 30 |
| t-Butylbenzene              | 1 | 51.7507  | 31.1502  | 50 * | 30 |
| 1,2,4-Trimethylbenzene      | 1 | 62.7536  | 35.4502  | 56 * | 30 |
| sec-Butylbenzene            | 1 | 69.9217  | 37.9862  | 59 * | 40 |
| 4-Isopropyltoluene          | 1 | 54.4702  | 32.693   | 50 * | 30 |
| n-Butylbenzene              | 1 | 56.2403  | 33.5914  | 50 * | 30 |
| p-Diethylbenzene            | 1 | 76.5527  | 35.4999  | 73 * | 30 |
| 1,2,4,5-Tetramethylbenzene  | 1 | 67.5647  | 31.5122  | 73 * | 30 |
| 1,2-Dibromo-3-Chloropropane | 1 | 44.7373  | 31.458   | 35 * | 30 |
| Camphor                     | 1 | 414.318  | 260.0808 | 46 * | 30 |
| Hexachlorobutadiene         | 1 | 63.0874  | 38.6066  | 48 * | 30 |
| 1,2,4-Trichlorobenzene      | 1 | 58.4156  | 37.4638  | 44 * | 30 |
| 1,2,3-Trichlorobenzene      | 1 | 49.0535  | 30.147   | 48 * | 30 |
| Naphthalene                 | 1 | 43.7731  | 27.3471  | 46 * | 30 |

\* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

# Form7

Continuing Calibration

8101509 0160

Calibration Name: CAL @ 20 PPB  
Cont Calibration Date/Time 10/24/2018 8:13:00

Data File: IM112518.D  
Method: EPA 624.1

Instrument: GCMS I

| TxtCompd:                           | Col# | Multi Num | Type | RT   | Conc    | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff  | Flag |
|-------------------------------------|------|-----------|------|------|---------|----------|--------|--------|------------|-------|--------|------|
| Fluorobenzene                       | 1    | 0         | I    | 5.36 | 30.00   | 30       | **     |        |            | 0.000 | 0.00   |      |
| Chlorodifluoromethane               | 1    | 0         |      | 2.15 | 18.90   | 20       | 0      | 60     | 0.253      | 0.239 | 5.51   |      |
| Dichlorodifluoromethane             | 1    | 0         |      | 2.14 | 99.37   | 20       | 2      | 60     | 0.116      | 0.252 | 396.85 | C1   |
| Chloromethane                       | 1    | 0         |      | 2.32 | 42.28   | 20       | 2      | 41     | 0.188      | 0.274 | 111.42 | C1   |
| Bromomethane                        | 1    | 0         |      | 2.69 | 23.11   | 20       | 3      | 37     | 0.213      | 0.246 | 15.56  |      |
| Vinyl Chloride                      | 1    | 0         |      | 2.40 | 27.16   | 20       | 1      | 39     | 0.237      | 0.322 | 35.82  |      |
| Chloroethane                        | 1    | 0         |      | 2.77 | 28.87   | 20       | 8      | 32     | 0.197      | 0.216 | 44.34  |      |
| Trichlorofluoromethane              | 1    | 0         |      | 2.98 | 23.84   | 20       | 10     | 30     | 0.482      | 0.575 | 19.18  |      |
| Ethyl ether                         | 1    | 0         |      | 3.20 | 20.07   | 20       | 2      | 40     | 0.251      | 0.251 | 0.37   |      |
| Furan                               | 1    | 0         |      | 3.24 | 21.21   | 20       | 4      | 40     | 0.412      | 0.437 | 6.06   |      |
| 1,1,2-Trichloro-1,2,2-trifluoroetha | 1    | 0         |      | 3.39 | 21.10   | 20       | 4      | 50     | 0.190      | 0.200 | 5.50   |      |
| Methylene Chloride                  | 1    | 0         |      | 3.78 | 17.49   | 20       | 12     | 28     | 0.249      | 0.218 | 12.55  |      |
| Acrolein                            | 1    | 0         |      | 3.31 | 102.92  | 100      | 60     | 140    | 0.034      | 0.035 | 2.92   |      |
| Acrylonitrile                       | 1    | 0         |      | 3.97 | 16.70   | 20       | 12     | 28     | 0.076      | 0.063 | 16.49  |      |
| Iodomethane                         | 1    | 0         |      | 3.54 | 12.30   | 20       | 2      | 40     | 0.276      | 0.170 | 38.49  |      |
| Acetone                             | 1    | 0         |      | 3.42 | 99.54   | 100      | 10     | 200    | 0.067      | 0.067 | 0.46   |      |
| Carbon Disulfide                    | 1    | 0         |      | 3.61 | 15.29   | 20       | 2      | 32     | 0.669      | 0.511 | 23.55  |      |
| t-Butyl Alcohol                     | 1    | 0         |      | 3.83 | 68.71   | 100      | 1      | 200    | 0.017      | 0.011 | 31.29  |      |
| n-Hexane                            | 1    | 0         |      | 4.20 | 30.34   | 20       | 0      | 60     | 0.101      | 0.092 | 51.69  |      |
| Di-isopropyl-ether                  | 1    | 0         |      | 4.34 | 16.86   | 20       | 4      | 40     | 0.605      | 0.510 | 15.73  |      |
| 1,1-Dichloroethene                  | 1    | 0         |      | 3.40 | 20.07   | 20       | 10     | 30     | 0.394      | 0.395 | 0.33   |      |
| Methyl Acetate                      | 1    | 0         |      | 3.68 | 16.69   | 20       | 4      | 30     | 0.190      | 0.158 | 16.54  |      |
| Methyl-t-butyl ether                | 1    | 0         |      | 4.00 | 14.71   | 20       | 4      | 40     | 0.649      | 0.477 | 26.46  |      |
| 1,1-Dichloroethane                  | 1    | 0         |      | 4.31 | 17.48   | 20       | 14     | 26     | 0.424      | 0.370 | 12.61  |      |
| trans-1,2-Dichloroethene            | 1    | 0         |      | 4.00 | 16.92   | 20       | 14     | 26     | 0.256      | 0.216 | 15.41  |      |
| Ethyl-t-butyl ether                 | 1    | 0         |      | 4.58 | 17.74   | 20       | 4      | 32     | 0.667      | 0.592 | 11.29  |      |
| cis-1,2-Dichloroethene              | 1    | 0         |      | 4.69 | 18.28   | 20       | 6      | 32     | 0.397      | 0.363 | 8.62   |      |
| Bromochloromethane                  | 1    | 0         |      | 4.84 | 20.05   | 20       | 6      | 32     | 0.220      | 0.220 | 0.25   |      |
| 2,2-Dichloropropane                 | 1    | 0         |      | 4.70 | 18.92   | 20       | 2      | 40     | 0.316      | 0.299 | 5.38   |      |
| Ethyl acetate                       | 1    | 0         |      | 4.71 | 19.86   | 20       | 4      | 32     | 0.209      | 0.208 | 0.72   |      |
| 1,4-Dioxane                         | 1    | 0         |      | 5.74 | 1065.43 | 1000     | 10     | 2500   | 0.002      | 0.002 | 6.54   |      |
| 1,1-Dichloropropene                 | 1    | 0         |      | 5.09 | 16.57   | 20       | 8      | 30     | 0.344      | 0.285 | 17.15  |      |
| Chloroform                          | 1    | 0         |      | 4.87 | 18.64   | 20       | 14     | 27     | 0.486      | 0.453 | 6.81   |      |
| Dibromofluoromethane                | 1    | 0         | S    | 4.97 | 31.55   | 30       | **     |        | 0.268      | 0.282 | 5.17   |      |
| Cyclohexane                         | 1    | 0         |      | 5.05 | 17.73   | 20       | 4      | 40     | 0.217      | 0.193 | 11.33  |      |
| 1,2-Dichloroethane-d4               | 1    | 0         | S    | 5.17 | 32.76   | 30       | **     |        | 0.153      | 0.167 | 9.19   |      |
| 1,2-Dichloroethane                  | 1    | 0         |      | 5.21 | 18.55   | 20       | 14     | 26     | 0.379      | 0.351 | 7.27   |      |
| 2-Butanone                          | 1    | 0         |      | 4.70 | 19.11   | 20       | 0      | 44     | 0.088      | 0.084 | 4.46   |      |
| 1,1,1-Trichloroethane               | 1    | 0         |      | 5.00 | 17.33   | 20       | 14     | 26     | 0.441      | 0.382 | 13.36  |      |
| Carbon Tetrachloride                | 1    | 0         |      | 5.10 | 16.78   | 20       | 14     | 26     | 0.371      | 0.311 | 16.09  |      |
| Vinyl Acetate                       | 1    | 0         |      | 4.34 | 21.19   | 20       | 4      | 40     | 0.400      | 0.424 | 5.96   |      |
| Bromodichloromethane                | 1    | 0         |      | 5.82 | 17.91   | 20       | 13     | 27     | 0.387      | 0.347 | 10.45  |      |
| Methylcyclohexane                   | 1    | 0         |      | 5.68 | 17.09   | 20       | 2      | 40     | 0.215      | 0.183 | 14.54  |      |
| Dibromomethane                      | 1    | 0         |      | 5.75 | 17.48   | 20       | 4      | 30     | 0.181      | 0.158 | 12.61  |      |
| 1,2-Dichloropropane                 | 1    | 0         |      | 5.68 | 17.90   | 20       | 7      | 27     | 0.244      | 0.219 | 10.49  |      |
| Trichloroethene                     | 1    | 0         |      | 5.56 | 16.49   | 20       | 13     | 27     | 0.273      | 0.225 | 17.56  |      |
| Benzene                             | 1    | 0         |      | 5.21 | 17.86   | 20       | 13     | 27     | 1.008      | 0.900 | 10.69  |      |
| tert-Amyl methyl ether              | 1    | 0         |      | 5.25 | 16.45   | 20       | 4      | 30     | 0.749      | 0.616 | 17.76  |      |
| Chlorobenzene-d5                    | 1    | 0         | I    | 6.99 | 30.00   | 30       | **     |        |            | 0.000 | 0.00   |      |
| Iso-propylacetate                   | 1    | 0         |      | 5.20 | 16.41   | 20       | 2      | 40     | 0.479      | 0.393 | 17.96  |      |
| Methyl methacrylate                 | 1    | 0         |      | 5.70 | 16.83   | 20       | 2      | 34     | 0.225      | 0.190 | 15.84  |      |
| Dibromochloromethane                | 1    | 0         |      | 6.67 | 16.17   | 20       | 14     | 27     | 0.360      | 0.291 | 19.17  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
C1-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

# Form7

Continuing Calibration

8101509 0161

Calibration Name: CAL @ 20 PPB  
Cont Calibration Date/Time 10/24/2018 8:13:00

Data File: IM112518.D  
Method: EPA 624.1

Instrument: GCMS 1

| TxtCompd:                   | Col# | Multi Num | Type | RT   | Conc  | Conc Exp | Lo Lim | MIN RF | Initial RF | RF    | %Diff  | Flag |
|-----------------------------|------|-----------|------|------|-------|----------|--------|--------|------------|-------|--------|------|
| 2-Chloroethylvinylether     | 1    | 0         |      | 5.95 | 21.96 | 20       | 2      | 45     | 0.114      | 0.151 | 9.78   |      |
| cis-1,3-Dichloropropene     | 1    | 0         |      | 6.05 | 16.11 | 20       | 5      | 35     | 0.531      | 0.428 | 19.46  |      |
| trans-1,3-Dichloropropene   | 1    | 0         |      | 6.34 | 16.59 | 20       | 10     | 30     | 0.493      | 0.409 | 17.07  |      |
| Ethyl methacrylate          | 1    | 0         |      | 6.36 | 19.64 | 20       | 2      | 32     | 0.223      | 0.219 | 1.82   |      |
| 1,1,2-Trichloroethane       | 1    | 0         |      | 6.44 | 17.50 | 20       | 14     | 26     | 0.310      | 0.271 | 12.48  |      |
| 1,2-Dibromoethane           | 1    | 0         |      | 6.74 | 16.98 | 20       | 4      | 30     | 0.321      | 0.273 | 15.09  |      |
| 1,3-Dichloropropane         | 1    | 0         |      | 6.54 | 18.14 | 20       | 4      | 40     | 0.530      | 0.481 | 9.30   |      |
| 4-Methyl-2-Pentanone        | 1    | 0         |      | 6.12 | 17.99 | 20       | 2      | 40     | 0.237      | 0.213 | 10.06  |      |
| 2-Hexanone                  | 1    | 0         |      | 6.55 | 18.92 | 20       | 2      | 40     | 0.163      | 0.154 | 5.42   |      |
| Tetrachloroethene           | 1    | 0         |      | 6.54 | 16.32 | 20       | 14     | 26     | 0.221      | 0.180 | 18.41  |      |
| Toluene-d8                  | 1    | 0         | S    | 6.20 | 30.80 | 30       | **     |        | 1.260      | 1.293 | 2.65   |      |
| Toluene                     | 1    | 0         |      | 6.24 | 17.28 | 20       | 14     | 26     | 0.826      | 0.714 | 13.62  |      |
| 1,1,1,2-Tetrachloroethane   | 1    | 0         |      | 7.03 | 16.34 | 20       | 8      | 32     | 0.311      | 0.254 | 18.30  |      |
| Chlorobenzene               | 1    | 0         |      | 7.00 | 17.31 | 20       | 13     | 27     | 0.900      | 0.779 | 13.44  |      |
| 1,4-Dichlorobenzene-d4      | 1    | 0         | I    | 8.27 | 30.00 | 30       | **     |        |            | 0.000 | 0.00   |      |
| n-Butyl acrylate            | 1    | 0         |      | 7.25 | 16.56 | 20       | 2      | 40     | 0.798      | 0.905 | 17.18  |      |
| n-Amyl acetate              | 1    | 0         |      | 7.36 | 20.28 | 20       | 4      | 30     | 0.636      | 0.878 | 1.38   |      |
| Bromoform                   | 1    | 0         |      | 7.45 | 15.95 | 20       | 14     | 26     | 0.503      | 0.401 | 20.27  |      |
| Ethylbenzene                | 1    | 0         |      | 7.04 | 17.34 | 20       | 12     | 28     | 0.759      | 0.658 | 13.32  |      |
| 1,1,2,2-Tetrachloroethane   | 1    | 0         |      | 7.66 | 20.49 | 20       | 12     | 28     | 0.716      | 0.733 | 2.43   |      |
| Bromofluorobenzene          | 1    | 0         | S    | 7.62 | 29.80 | 30       | **     |        | 0.891      | 0.885 | 0.66   |      |
| Styrene                     | 1    | 0         |      | 7.33 | 17.40 | 20       | 4      | 32     | 2.145      | 1.867 | 12.98  |      |
| m&p-Xylenes                 | 1    | 0         |      | 7.10 | 35.02 | 40       | 8      | 80     | 1.159      | 1.015 | 12.44  |      |
| o-Xylene                    | 1    | 0         |      | 7.32 | 16.96 | 20       | 4      | 40     | 1.186      | 1.005 | 15.20  |      |
| trans-1,4-Dichloro-2-butene | 1    | 0         |      | 7.69 | 24.07 | 20       | 1      | 40     | 0.206      | 0.248 | 20.35  |      |
| 1,3-Dichlorobenzene         | 1    | 0         |      | 8.24 | 16.83 | 20       | 14     | 26     | 1.120      | 0.942 | 15.83  |      |
| 1,4-Dichlorobenzene         | 1    | 0         |      | 8.28 | 17.24 | 20       | 13     | 27     | 1.146      | 0.987 | 13.80  |      |
| 1,2-Dichlorobenzene         | 1    | 0         |      | 8.51 | 17.38 | 20       | 13     | 27     | 1.023      | 0.889 | 13.11  |      |
| Isopropylbenzene            | 1    | 0         |      | 7.52 | 17.14 | 20       | 4      | 32     | 2.371      | 2.032 | 14.30  |      |
| Cyclohexanone               | 1    | 0         |      | 7.59 | 69.40 | 100      | 0      | 300    | 0.028      | 0.016 | 30.60  |      |
| Camphene                    | 1    | 0         |      | 7.69 | 17.07 | 20       | 2      | 40     | 0.587      | 0.501 | 14.65  |      |
| 1,2,3-Trichloropropane      | 1    | 0         |      | 7.70 | 19.87 | 20       | 6      | 30     | 0.906      | 0.900 | 0.65   |      |
| 2-Chlorotoluene             | 1    | 0         |      | 7.81 | 17.65 | 20       | 6      | 32     | 1.532      | 1.352 | 11.77  |      |
| p-Ethyltoluene              | 1    | 0         |      | 7.80 | 17.63 | 20       | 1      | 50     | 2.476      | 2.183 | 11.83  |      |
| 4-Chlorotoluene             | 1    | 0         |      | 7.87 | 17.15 | 20       | 6      | 30     | 1.554      | 1.333 | 14.27  |      |
| n-Propylbenzene             | 1    | 0         |      | 7.74 | 17.89 | 20       | 4      | 32     | 2.612      | 2.336 | 10.56  |      |
| Bromobenzene                | 1    | 0         |      | 7.72 | 18.50 | 20       | 6      | 30     | 1.734      | 1.604 | 7.48   |      |
| 1,3,5-Trimethylbenzene      | 1    | 0         |      | 7.83 | 17.93 | 20       | 6      | 40     | 1.769      | 1.585 | 10.36  |      |
| Butyl methacrylate          | 1    | 0         |      | 7.83 | 21.20 | 20       | 2      | 40     | 0.551      | 0.742 | 6.01   |      |
| t-Butylbenzene              | 1    | 0         |      | 8.02 | 16.10 | 20       | 4      | 32     | 1.622      | 1.306 | 19.52  |      |
| 1,2,4-Trimethylbenzene      | 1    | 0         |      | 8.05 | 16.61 | 20       | 6      | 40     | 1.960      | 1.627 | 16.96  |      |
| sec-Butylbenzene            | 1    | 0         |      | 8.15 | 16.47 | 20       | 4      | 32     | 1.847      | 1.521 | 17.67  |      |
| 4-Isopropyltoluene          | 1    | 0         |      | 8.22 | 15.81 | 20       | 6      | 30     | 1.558      | 1.232 | 20.95  |      |
| n-Butylbenzene              | 1    | 0         |      | 8.45 | 17.32 | 20       | 2      | 40     | 1.573      | 1.362 | 13.42  |      |
| p-Diethylbenzene            | 1    | 0         |      | 8.44 | 16.40 | 20       | 1      | 50     | 0.890      | 0.729 | 18.02  |      |
| 1,2,4,5-Tetramethylbenzene  | 1    | 0         |      | 8.90 | 13.54 | 20       | 2      | 40     | 1.110      | 0.752 | 32.28  |      |
| 1,2-Dibromo-3-Chloropropane | 1    | 0         |      | 8.95 | 13.53 | 20       | 0      | 40     | 0.069      | 0.051 | 32.36  |      |
| Camphor                     | 1    | 0         |      | 9.39 | 78.88 | 20       | 0      | 400    | 0.029      | 0.148 | 294.38 |      |
| Hexachlorobutadiene         | 1    | 0         |      | 9.53 | 8.71  | 20       | 4      | 34     | 0.120      | 0.077 | 56.43  |      |
| 1,2,4-Trichlorobenzene      | 1    | 0         |      | 9.45 | 6.06  | 20       | 1      | 40     | 0.201      | 0.103 | 69.72  |      |
| 1,2,3-Trichlorobenzene      | 1    | 0         |      | 9.75 | 3.65  | 20       | 0      | 40     | 0.183      | 0.040 | 81.76  |      |
| Naphthalene                 | 1    | 0         |      | 9.61 | 2.68  | 20       | 0      | 50     | 0.566      | 0.153 | 86.59  |      |

S-Surrogate Compound  
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound  
CI-Compound %Diff exceeds limits

\*\* - No limit specified in method

Page 2 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.  
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.  
524.2 limits are compared against the %DIFF

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-002      % Solid: 0      Lab Name: Hampton-Clarke      Nras No:  
 Client Id: LMW-2-102018 F      Units: UG/L      Lab Code:      Sdg No:  
 Matrix: AQUEOUS      Date Rec: 10/15/2018      Contract:      Case No:  
 Level: LOW

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M:            | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 15      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-002  
 Client Id: LMW-2-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/15/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M  | Instr   |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 120   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 78000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 170   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 28000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 170   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND    | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 18      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 53      | P  | PEICP2A |

Comments:

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

|            |                |           |            |           |                |          |
|------------|----------------|-----------|------------|-----------|----------------|----------|
| Sample ID: | AD07118-002    | % Solid:  | 0          | Lab Name: | Hampton-Clarke | Nras No: |
| Client Id: | LMW-2-102018 F | Units:    | UG/L       | Lab Code: |                | Sdg No:  |
| Matrix:    | AQUEOUS        | Date Rec: | 10/15/2018 | Contract: |                | Case No: |
| Level:     | LOW            |           |            |           |                |          |

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|---|------------|
| 7440-09-7 | Potassium | 2500 | 3900  | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 21      | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 25000 | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 21      | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-004  
 Client Id: PC-1-10 2018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/15/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | MI            | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 16      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS



# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-004  
 Client Id: PC-1-10 2018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/15/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr   |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | 120    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 140    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 170000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 240    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 27000  | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 2000   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND     | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 19      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 54      | P  | PEICP2A |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

|            |                |           |            |           |                |          |
|------------|----------------|-----------|------------|-----------|----------------|----------|
| Sample ID: | AD07118-004    | % Solid:  | 0          | Lab Name: | Hampton-Clarke | Nras No: |
| Client Id: | PC-1-10 2018 F | Units:    | UG/L       | Lab Code: |                | Sdg No:  |
| Matrix:    | AQUEOUS        | Date Rec: | 10/15/2018 | Contract: |                | Case No: |
| Level:     | LOW            |           |            |           |                |          |

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M | Instr      |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|---|------------|
| 7440-09-7 | Potassium | 2500 | 4900   | 1        | 200            | 100          | 10/24/18      | 72866      | A23276A2 | 13      | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 100000 | 1        | 200            | 100          | 10/24/18      | 72866      | A23276A2 | 13      | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
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Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-006      % Solid: 0      Lab Name: Hampton-Clarke      Nras No:  
 Client Id: GW-DUP1-102018 F      Units: UG/L      Lab Code:      Sdg No:  
 Matrix: AQUEOUS      Date Rec: 10/15/2018      Contract:      Case No:  
 Level: LOW

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M:            | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 17      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07118-006  
 Client Id: GW-DUP1-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/15/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr   |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 130    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 170000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 230    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 26000  | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 2000   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND     | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 20      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND     | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 55      | P  | PEICP2A |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AD07118-006      % Solid: 0      Lab Name: Hampton-Clarke      Nras No:  
Client Id: GW-DUP1-102018 F      Units: UG/L      Lab Code:      Sdg No:  
Matrix: AQUEOUS      Date Rec: 10/15/2018      Contract:      Case No:  
Level: LOW

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis<br>Date | Prep<br>Batch | File:    | Seq<br>Num | M | Instr      |
|-----------|-----------|------|--------|----------|-------------------|-----------------|------------------|---------------|----------|------------|---|------------|
| 7440-09-7 | Potassium | 2500 | 5000   | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 22         | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 100000 | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 22         | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

|            |                |           |            |           |                |          |
|------------|----------------|-----------|------------|-----------|----------------|----------|
| Sample ID: | AD07118-008    | % Solid:  | 0          | Lab Name: | Hampton-Clarke | Nras No: |
| Client Id: | MW-11-102018 F | Units:    | UG/L       | Lab Code: |                | Sdg No:  |
| Matrix:    | AQUEOUS        | Date Rec: | 10/15/2018 | Contract: |                | Case No: |
| Level:     | LOW            |           |            |           |                |          |

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M | Instr   |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|------------|----------|---------|---|---------|
| 7439-89-6 | Iron      | 150 | 1600 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 56      | P | PEICP2A |
| 7439-96-5 | Manganese | 25  | 1600 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 56      | P | PEICP2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-002      % Solid: 0      Lab Name: Hampton-Clarke      Nras No:  
 Client Id: LMW-4-102018 F      Units: UG/L      Lab Code:      Sdg No:  
 Matrix: AQUEOUS      Date Rec: 10/16/2018      Contract:      Case No:  
 Level: LOW

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | 2.0  | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | 11   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 19      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-002  
 Client Id: LMW-4-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr   |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 150   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 40000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 60000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 17000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 9700  | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND    | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 25      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 62      | P  | PEICP2A |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS



**Form1**  
**Inorganic Analysis Data Sheet**

|            |                |           |            |           |                |          |
|------------|----------------|-----------|------------|-----------|----------------|----------|
| Sample ID: | AD07137-002    | % Solid:  | 0          | Lab Name: | Hampton-Clarke | Nras No: |
| Client Id: | LMW-4-102018 F | Units:    | UG/L       | Lab Code: |                | Sdg No:  |
| Matrix:    | AQUEOUS        | Date Rec: | 10/16/2018 | Contract: |                | Case No: |
| Level:     | LOW            |           |            |           |                |          |

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis<br>Date | Prep<br>Batch | File:    | Seq<br>Num | M | Instr      |
|-----------|-----------|------|-------|----------|-------------------|-----------------|------------------|---------------|----------|------------|---|------------|
| 7440-09-7 | Potassium | 2500 | 3500  | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 23         | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 29000 | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 23         | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-004  
 Client Id: PC-2-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | 1.8  | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | 1.6  | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW |       | 20      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-004  
 Client Id: PC-2-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr   |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 170   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 81000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 61000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 19000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 11000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND    | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 26      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 63      | P  | PEICP2A |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AD07137-004  
Client Id: PC-2-102018 F  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis<br>Date | Prep<br>Batch | File:    | Seq<br>Num | M | Instr      |
|-----------|-----------|------|-------|----------|-------------------|-----------------|------------------|---------------|----------|------------|---|------------|
| 7440-09-7 | Potassium | 2500 | 3700  | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 24         | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 39000 | 1        | 100               | 50              | 10/24/18         | 72866         | A23276A2 | 24         | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-006  
 Client Id: PC-3-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num       | M | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------------|---|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7440-38-2 | Arsenic   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7440-48-4 | Cobalt    | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 728242418BNEW | 24    | MSMS3_7700AQA |   |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07137-006  
 Client Id: PC-3-102018 F  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr   |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|---------|
| 7429-90-5 | Aluminum  | 100  | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-39-3 | Barium    | 25   | 160   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-70-2 | Calcium   | 1000 | 74000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-47-3 | Chromium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-50-8 | Copper    | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7439-89-6 | Iron      | 150  | 1800  | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7439-95-4 | Magnesium | 1000 | 21000 | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7439-96-5 | Manganese | 25   | 570   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7439-97-6 | Mercury   | 0.20 | ND    | 1        | 25             | 25           | 10/23/18      | 72824      | H23276A  | 27      | CV | HGCV3A  |
| 7440-02-0 | Nickel    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-22-4 | Silver    | 10   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-62-2 | Vanadium  | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |
| 7440-66-6 | Zinc      | 25   | ND    | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 64      | P  | PEICP2A |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AD07137-006  
Client Id: PC-3-102018 F  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 10/16/2018

Lab Name: Hampton-Clarke  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M | Instr      |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|---|------------|
| 7440-09-7 | Potassium | 2500 | 7300   | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 25      | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | 120000 | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 25      | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-001  
 Client Id: SW-1-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc. | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|-----|-------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 3.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 2.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 1.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 2.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7440-48-4 | Cobalt    | 2.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7439-92-1 | Lead      | 3.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 10  | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 2.0 | ND    | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 29      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS



# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-001  
 Client Id: SW-1-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 200  | 390   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-39-3 | Barium    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-70-2 | Calcium   | 5000 | 43000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-47-3 | Chromium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-50-8 | Copper    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7439-89-6 | Iron      | 300  | 1800  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7439-95-4 | Magnesium | 5000 | 12000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7439-96-5 | Manganese | 40   | 1500  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7439-97-6 | Mercury   | 0.50 | ND    | 1        | 25             | 25           | 10/20/18      | 72842      | H23291SW | 18      | CV | HGCV1A     |
| 7440-02-0 | Nickel    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-09-7 | Potassium | 5000 | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 22      | P  | PEICPRAD2A |
| 7440-22-4 | Silver    | 20   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-23-5 | Sodium    | 5000 | 9300  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 22      | P  | PEICPRAD2A |
| 7440-62-2 | Vanadium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |
| 7440-66-6 | Zinc      | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 22      | P  | PEICP2A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

1

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Hampton-Clarke

Data File Name: A23190F2

Lab Code: 14622

Analysis Date: 10/20/2018

Matrix: Water

Lab Sample ID: AD07161-001

Client ID: TRC-NYC

Level: low/med

Dilution: 1

Batch: 23276

% Solid: 0

Concentration Units: Mg CaCO<sub>3</sub>/L

| Cas No. | Analyte  | RL    | Concentration | M   |
|---------|----------|-------|---------------|-----|
| -----   | -----    | ----- | -----         | --- |
|         | Hardness | 6.6   | 150           | P   |

U - Indicates compound not found above detection/reporting limit

\* - Indicates compound above calibration range

P - Indicates analyzed by ICP

CV - Indicates analyzed by Cold Vapor

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-002  
 Client Id: SD-1-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 36  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M  | Instr       |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|----|-------------|
| 7440-36-0 | Antimony  | 2.2  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7440-38-2 | Arsenic   | 0.56 | 1.9  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7440-41-7 | Beryllium | 0.56 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7440-43-9 | Cadmium   | 1.1  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7782-49-2 | Selenium  | 5.6  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7440-22-4 | Silver    | 0.56 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |
| 7440-28-0 | Thallium  | 1.1  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 21      | MS | MS3_7700SWA |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-002  
 Client Id: SD-1-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 36  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 560  | 6500  | 1        | 1              | 100          | 10/21/18      | 72844      | S23293C4 | 16      | P  | PEICPRAD4A |
| 7440-39-3 | Barium    | 28   | 330   | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7440-70-2 | Calcium   | 2800 | 5700  | 1        | 1              | 100          | 10/21/18      | 72844      | S23293C4 | 16      | P  | PEICPRAD4A |
| 7440-47-3 | Chromium  | 14   | 19    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7440-48-4 | Cobalt    | 6.9  | 11    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7440-50-8 | Copper    | 14   | 15    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7439-89-6 | Iron      | 560  | 31000 | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7439-92-1 | Lead      | 14   | 21    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7439-95-4 | Magnesium | 1400 | 2600  | 1        | 1              | 100          | 10/21/18      | 72844      | S23293C4 | 16      | P  | PEICPRAD4A |
| 7439-96-5 | Manganese | 280  | 17000 | 10       | 1              | 100          | 10/19/18      | 72844      | S23293C3 | 13      | P  | PEICP3A    |
| 7439-97-6 | Mercury   | 0.23 | ND    | 1        | 0.15           | 25           | 10/20/18      | 72844      | H23293S  | 16      | CV | HGCV3A     |
| 7440-02-0 | Nickel    | 14   | ND    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7440-09-7 | Potassium | 1400 | 1500  | 1        | 1              | 100          | 10/21/18      | 72844      | S23293C4 | 16      | P  | PEICPRAD4A |
| 7440-23-5 | Sodium    | 690  | ND    | 1        | 1              | 100          | 10/21/18      | 72844      | S23293C4 | 16      | P  | PEICPRAD4A |
| 7440-62-2 | Vanadium  | 28   | ND    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |
| 7440-66-6 | Zinc      | 28   | 69    | 1        | 1              | 100          | 10/19/18      | 72844      | S23293A3 | 16      | P  | PEICP3A    |

Comments:

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-003  
 Client Id: SW-2-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 1.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7440-48-4 | Cobalt    | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7439-92-1 | Lead      | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 10  | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 30      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-003  
 Client Id: SW-2-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 200  | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-39-3 | Barium    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-70-2 | Calcium   | 5000 | 44000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-47-3 | Chromium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-50-8 | Copper    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7439-89-6 | Iron      | 300  | 330   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7439-95-4 | Magnesium | 5000 | 12000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7439-96-5 | Manganese | 40   | 280   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7439-97-6 | Mercury   | 0.50 | ND    | 1        | 25             | 25           | 10/20/18      | 72842      | H23291SW | 19      | CV | HGCV1A     |
| 7440-02-0 | Nickel    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-09-7 | Potassium | 5000 | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 25      | P  | PEICPRAD2A |
| 7440-22-4 | Silver    | 20   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-23-5 | Sodium    | 5000 | 14000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 25      | P  | PEICPRAD2A |
| 7440-62-2 | Vanadium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |
| 7440-66-6 | Zinc      | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 25      | P  | PEICP2A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

1

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Hampton-Clarke

Data File Name: A23190F2

Lab Code: 14622

Analysis Date: 10/20/2018

Matrix: Water

Lab Sample ID: AD07161-003

Client ID: TRC-NYC

Level: low/med

Dilution: 1

Batch: 23276

% Solid: 0

Concentration Units: Mg CaCO3/L

| Cas No. | Analyte  | RL    | Concentration | M   |
|---------|----------|-------|---------------|-----|
| -----   | -----    | ----- | -----         | --- |
|         | Hardness | 6.6   | 160           | P   |

U - Indicates compound not found above detection/reporting limit

\* - Indicates compound above calibration range

P - Indicates analyzed by ICP

CV - Indicates analyzed by Cold Vapor

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-004  
 Client Id: SD-2-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 16  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M  | Instr       |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|---------------|-------|---------|----|-------------|
| 7440-36-0 | Antimony  | 5.0 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7440-38-2 | Arsenic   | 1.2 | 5.5  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7440-41-7 | Beryllium | 1.2 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7440-43-9 | Cadmium   | 2.5 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7782-49-2 | Selenium  | 13  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7440-22-4 | Silver    | 1.2 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |
| 7440-28-0 | Thallium  | 2.5 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 30      | MS | MS3_7700SWA |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS



# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-004  
 Client Id: SD-2-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 16  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 1200 | 8900  | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 22      | P  | PEICPRAD4A |
| 7440-39-3 | Barium    | 62   | 420   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7440-70-2 | Calcium   | 6200 | 13000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 22      | P  | PEICPRAD4A |
| 7440-47-3 | Chromium  | 31   | ND    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7440-48-4 | Cobalt    | 16   | ND    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7440-50-8 | Copper    | 31   | 45    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7439-89-6 | Iron      | 1200 | 34000 | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7439-92-1 | Lead      | 31   | 51    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7439-95-4 | Magnesium | 3100 | 5200  | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 22      | P  | PEICPRAD4A |
| 7439-96-5 | Manganese | 250  | 18000 | 4        | 0.5            | 50           | 10/19/18      | 72844      | S23293C3 | 19      | P  | PEICP3A    |
| 7439-97-6 | Mercury   | 0.52 | ND    | 1        | 0.15           | 25           | 10/20/18      | 72844      | H23293S  | 20      | CV | HGCV3A     |
| 7440-02-0 | Nickel    | 31   | ND    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7440-09-7 | Potassium | 3100 | ND    | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 22      | P  | PEICPRAD4A |
| 7440-23-5 | Sodium    | 1600 | ND    | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 22      | P  | PEICPRAD4A |
| 7440-62-2 | Vanadium  | 62   | ND    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |
| 7440-66-6 | Zinc      | 62   | 260   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 22      | P  | PEICP3A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-005  
 Client Id: SW-3-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis<br>Date | Prep<br>Batch | File: | Seq<br>Num | M | Instr         |
|-----------|-----------|-----|------|----------|-------------------|-----------------|------------------|---------------|-------|------------|---|---------------|
| 7440-36-0 | Antimony  | 3.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7440-38-2 | Arsenic   | 2.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7440-41-7 | Beryllium | 1.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7440-43-9 | Cadmium   | 2.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7440-48-4 | Cobalt    | 2.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7439-92-1 | Lead      | 3.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7782-49-2 | Selenium  | 10  | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |
| 7440-28-0 | Thallium  | 2.0 | ND   | 1        | 50                | 100             | 10/23/18         | 728422318BNEW |       | 31         |   | MSMS3_7700SWA |

Comments:

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-005  
 Client Id: SW-3-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M: | Instr      |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 200  | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-39-3 | Barium    | 50   | 92     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-70-2 | Calcium   | 5000 | 170000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-47-3 | Chromium  | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-50-8 | Copper    | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7439-89-6 | Iron      | 300  | 1000   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7439-95-4 | Magnesium | 5000 | 24000  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7439-96-5 | Manganese | 40   | 980    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7439-97-6 | Mercury   | 0.50 | ND     | 1        | 25             | 25           | 10/20/18      | 72842      | H23291SW | 20      | CV | HGCV1A     |
| 7440-02-0 | Nickel    | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-09-7 | Potassium | 5000 | 8100   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 26      | P  | PEICPRAD2A |
| 7440-22-4 | Silver    | 20   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-23-5 | Sodium    | 5000 | 99000  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 26      | P  | PEICPRAD2A |
| 7440-62-2 | Vanadium  | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |
| 7440-66-6 | Zinc      | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 26      | P  | PEICP2A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

1

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Hampton-Clarke

Data File Name: A23190F2

Lab Code: 14622

Analysis Date: 10/20/2018

Matrix: Water

Lab Sample ID: AD07161-005

Client ID: TRC-NYC

Level: low/med

Dilution: 1

Batch: 23276

% Solid: 0

Concentration Units: Mg CaCO<sub>3</sub>/L

| Cas No. | Analyte  | RL  | Concentration | M |
|---------|----------|-----|---------------|---|
|         | Hardness | 6.6 | 500           | P |

U - Indicates compound not found above detection/reporting limit

\* - Indicates compound above calibration range

P - Indicates analyzed by ICP

CV - Indicates analyzed by Cold Vapor

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-006  
 Client Id: SD-3-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 55  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 1.5  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 0.36 | 4.2  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 0.36 | 0.56 | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 0.73 | 1.2  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 3.6  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7440-22-4 | Silver    | 0.36 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 0.73 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 31      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-006  
 Client Id: SD-3-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 55  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 360  | 27000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 25      | P  | PEICPRAD4A |
| 7440-39-3 | Barium    | 18   | 160   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7440-70-2 | Calcium   | 1800 | 49000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 25      | P  | PEICPRAD4A |
| 7440-47-3 | Chromium  | 9.1  | 42    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7440-48-4 | Cobalt    | 4.5  | 15    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7440-50-8 | Copper    | 9.1  | 45    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7439-89-6 | Iron      | 360  | 35000 | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7439-92-1 | Lead      | 9.1  | 150   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7439-95-4 | Magnesium | 910  | 30000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 25      | P  | PEICPRAD4A |
| 7439-96-5 | Manganese | 18   | 430   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7439-97-6 | Mercury   | 0.15 | ND    | 1        | 0.15           | 25           | 10/20/18      | 72844      | H23293S  | 23      | CV | HGCV3A     |
| 7440-02-0 | Nickel    | 9.1  | 35    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7440-09-7 | Potassium | 910  | 2800  | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 25      | P  | PEICPRAD4A |
| 7440-23-5 | Sodium    | 450  | 650   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 25      | P  | PEICPRAD4A |
| 7440-62-2 | Vanadium  | 18   | 68    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |
| 7440-66-6 | Zinc      | 18   | 200   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 13      | P  | PEICP3A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-007  
 Client Id: SW-DUP1-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 1.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-48-4 | Cobalt    | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7439-92-1 | Lead      | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 10  | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 32      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-007  
 Client Id: SW-DUP1-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc   | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|--------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 200  | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-39-3 | Barium    | 50   | 110    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-70-2 | Calcium   | 5000 | 190000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-47-3 | Chromium  | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-50-8 | Copper    | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7439-89-6 | Iron      | 300  | 1200   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7439-95-4 | Magnesium | 5000 | 27000  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7439-96-5 | Manganese | 40   | 1100   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7439-97-6 | Mercury   | 0.50 | ND     | 1        | 25             | 25           | 10/20/18      | 72842      | H23291SW | 23      | CV | HGCV1A     |
| 7440-02-0 | Nickel    | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-09-7 | Potassium | 5000 | 9500   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 27      | P  | PEICPRAD2A |
| 7440-22-4 | Silver    | 20   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-23-5 | Sodium    | 5000 | 120000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 27      | P  | PEICPRAD2A |
| 7440-62-2 | Vanadium  | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |
| 7440-66-6 | Zinc      | 50   | ND     | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 27      | P  | PEICP2A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS



1

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Hampton-Clarke

Data File Name: A23190F2

Lab Code: 14622

Analysis Date: 10/20/2018

Matrix: Water

Lab Sample ID: AD07161-007

Client ID: TRC-NYC

Level: low/med

Dilution: 1

Batch: 23276

\* Solid: 0

Concentration Units: Mg CaCO3/L

| Cas No. | Analyte  | RL  | Concentration | M |
|---------|----------|-----|---------------|---|
|         | Hardness | 6.6 | 500           | P |

U - Indicates compound not found above detection/reporting limit

\* - Indicates compound above calibration range

P - Indicates analyzed by ICP

CV - Indicates analyzed by Cold Vapor

Comments:

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-008  
 Client Id: SW-4-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 2.0 | 2.6  | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 1.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7440-48-4 | Cobalt    | 2.0 | 5.8  | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7439-92-1 | Lead      | 3.0 | 24   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 10  | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 728422318BNEW |       | 33      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-008  
 Client Id: SW-4-102018  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 200  | 9000  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-39-3 | Barium    | 50   | 160   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-70-2 | Calcium   | 5000 | 76000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-47-3 | Chromium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-50-8 | Copper    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7439-89-6 | Iron      | 300  | 20000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7439-95-4 | Magnesium | 5000 | 23000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7439-96-5 | Manganese | 40   | 4600  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7439-97-6 | Mercury   | 0.50 | ND    | 1        | 25             | 25           | 10/20/18      | 72842      | H23291SW | 24      | CV | HGCV1A     |
| 7440-02-0 | Nickel    | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-09-7 | Potassium | 5000 | 6200  | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 28      | P  | PEICPRAD2A |
| 7440-22-4 | Silver    | 20   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-23-5 | Sodium    | 5000 | 31000 | 1        | 50             | 50           | 10/22/18      | 72842      | W23291B2 | 28      | P  | PEICPRAD2A |
| 7440-62-2 | Vanadium  | 50   | ND    | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |
| 7440-66-6 | Zinc      | 50   | 110   | 1        | 50             | 50           | 10/22/18      | 72842      | W23291A2 | 28      | P  | PEICP2A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

1

## INORGANIC ANALYSIS DATA SHEET

Lab Name: Hampton-Clarke

Data File Name: A23190F2

Lab Code: 14622

Analysis Date: 10/20/2018

Matrix: Water

Lab Sample ID: AD07161-008

Client ID: TRC-NYC

Level: low/med

Dilution: 1

Batch: 23276

% Solid: 0

Concentration Units: Mg CaCO<sub>3</sub>/L

| Cas No. | Analyte  | RL    | Concentration | M   |
|---------|----------|-------|---------------|-----|
| -----   | -----    | ----- | -----         | --- |
|         | Hardness | 6.6   | 310           | P   |

U - Indicates compound not found above detection/reporting limit

\* - Indicates compound above calibration range

P - Indicates analyzed by ICP

CV - Indicates analyzed by Cold Vapor

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-009  
 Client Id: SD-4-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 30  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch    | File: | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|---------------|-------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.7  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 0.67 | 4.5  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 0.67 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 1.3  | 1.9  | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 6.7  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-22-4 | Silver    | 0.67 | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 1.3  | ND   | 1        | 0.5            | 100          | 10/20/18      | 728451918DNEW |       | 32      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AD07161-009  
 Client Id: SD-4-102018  
 Matrix: SOIL  
 Level: LOW

% Solid: 30  
 Units: MG/KG  
 Date Rec: 10/17/2018

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

| Cas No.   | Analyte   | RL   | Conc  | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M  | Instr      |
|-----------|-----------|------|-------|----------|----------------|--------------|---------------|------------|----------|---------|----|------------|
| 7429-90-5 | Aluminum  | 670  | 16000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 26      | P  | PEICPRAD4A |
| 7440-39-3 | Barium    | 33   | 210   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7440-70-2 | Calcium   | 3300 | 10000 | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 26      | P  | PEICPRAD4A |
| 7440-47-3 | Chromium  | 17   | 40    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7440-48-4 | Cobalt    | 8.3  | 13    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7440-50-8 | Copper    | 17   | 45    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7439-89-6 | Iron      | 670  | 44000 | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7439-92-1 | Lead      | 17   | 73    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7439-95-4 | Magnesium | 1700 | 7300  | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 26      | P  | PEICPRAD4A |
| 7439-96-5 | Manganese | 33   | 1300  | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7439-97-6 | Mercury   | 0.28 | ND    | 1        | 0.15           | 25           | 10/20/18      | 72844      | H23293S  | 24      | CV | HGCV3A     |
| 7440-02-0 | Nickel    | 17   | 30    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7440-09-7 | Potassium | 1700 | 3400  | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 26      | P  | PEICPRAD4A |
| 7440-23-5 | Sodium    | 830  | ND    | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 26      | P  | PEICPRAD4A |
| 7440-62-2 | Vanadium  | 33   | 52    | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |
| 7440-66-6 | Zinc      | 33   | 260   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293B3 | 14      | P  | PEICP3A    |

Comments:

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72824  
 Client Id: MB 72824  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|------------|----------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 2.5  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7440-38-2 | Arsenic   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7440-41-7 | Beryllium | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7440-43-9 | Cadmium   | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7440-48-4 | Cobalt    | 1.0  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7439-92-1 | Lead      | 0.75 | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7782-49-2 | Selenium  | 5.0  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |
| 7440-28-0 | Thallium  | 1.5  | ND   | 1        | 100            | 125          | 10/24/18      | 72824      | 2418BNEW | 12      | MSMS3_7700AQA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72824 (0.5)  
 Client Id: MB 72824 (0.5)  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte    | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M | Instr   |
|-----------|------------|------|------|----------|----------------|--------------|---------------|------------|----------|---------|---|---------|
| 7429-90-5 | Aluminum   | 100  | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-39-3 | Barium     | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-70-2 | Calcium    | 1000 | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-47-3 | Chromium   | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-50-8 | Copper     | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7439-89-6 | Iron       | 150  | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7439-95-4 | Magnesium  | 1000 | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7439-96-5 | Manganese  | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7439-98-7 | Molybdenum | 10   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-02-0 | Nickel     | 10   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-22-4 | Silver     | 10   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-31-5 | Tin        | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-32-6 | Titanium   | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-62-2 | Vanadium   | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |
| 7440-66-6 | Zinc       | 25   | ND   | 1        | 100            | 50           | 10/20/18      | 72824      | A23190F2 | 39      | P | PEICP2A |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS



**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 72824 (1)  
Client Id: MB 72824 (1)  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L

Lab Name: Hampton-Clarke  
Lab Code:

| Cas No.   | Analyte | RL   | Conc | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis Date | Prep<br>Batch | File    | Seq<br>Num | M  | Instr  |
|-----------|---------|------|------|----------|-------------------|-----------------|---------------|---------------|---------|------------|----|--------|
| 7439-97-6 | Mercury | 0.20 | ND   | 1        | 25                | 25              | 10/23/18      | 72824         | H23276A | 11         | CV | HGCV3A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72842  
 Client Id: MB 72842  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte   | RL  | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M             | Instr |
|-----------|-----------|-----|------|----------|----------------|--------------|---------------|------------|----------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 1.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7440-48-4 | Cobalt    | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7439-92-1 | Lead      | 3.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 1.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 2.0 | ND   | 1        | 50             | 100          | 10/23/18      | 72842      | 2318BNEW | 17      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72842 (1)  
 Client Id: MB 72842 (1)  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte    | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch     | File: | Seq Num | M  | Instr      |
|-----------|------------|------|------|----------|----------------|--------------|---------------|----------------|-------|---------|----|------------|
| 7429-90-5 | Aluminum   | 200  | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-39-3 | Barium     | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-42-8 | Boron      | 200  | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-70-2 | Calcium    | 5000 | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-47-3 | Chromium   | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-50-8 | Copper     | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7439-89-6 | Iron       | 300  | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7439-95-4 | Magnesium  | 5000 | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7439-96-5 | Manganese  | 40   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7439-97-6 | Mercury    | 0.50 | ND   | 1        | 25             | 25           | 10/20/18      | 72842 H23291SW |       | 11      | CV | HGCV1A     |
| 7439-98-7 | Molybdenum | 20   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-02-0 | Nickel     | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-09-7 | Potassium  | 5000 | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291B2 |       | 13      | P  | PEICPRAD2A |
| 7440-21-3 | Silicon    | 100  | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-22-4 | Silver     | 20   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-23-5 | Sodium     | 5000 | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291B2 |       | 13      | P  | PEICPRAD2A |
| 7440-31-5 | Tin        | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-32-6 | Titanium   | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-62-2 | Vanadium   | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |
| 7440-66-6 | Zinc       | 50   | ND   | 1        | 50             | 50           | 10/22/18      | 72842SW23291A2 |       | 13      | P  | PEICP2A    |

Comments:

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 72866 (0.5)  
Client Id: MB 72866 (0.5)  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L

Lab Name: Hampton-Clarke  
Lab Code:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File:    | Seq Num | M | Instr      |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|------------|----------|---------|---|------------|
| 7440-09-7 | Potassium | 2500 | ND   | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 10      | P | PEICPRAD2A |
| 7440-23-5 | Sodium    | 2500 | ND   | 1        | 100            | 50           | 10/24/18      | 72866      | A23276A2 | 10      | P | PEICPRAD2A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72845  
 Client Id: MB 72845  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte   | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M             | Instr |
|-----------|-----------|------|------|----------|----------------|--------------|---------------|------------|----------|---------|---------------|-------|
| 7440-36-0 | Antimony  | 0.80 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7440-38-2 | Arsenic   | 0.20 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7440-41-7 | Beryllium | 0.20 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7440-43-9 | Cadmium   | 0.40 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7782-49-2 | Selenium  | 2.0  | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7440-22-4 | Silver    | 0.20 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |
| 7440-28-0 | Thallium  | 0.40 | ND   | 1        | 0.5            | 100          | 10/20/18      | 72845      | 1918DNEW | 18      | MSMS3_7700SWA |       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 72844 (100)  
 Client Id: MB 72844 (100)  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Hampton-Clarke  
 Lab Code:

| Cas No.   | Analyte    | RL   | Conc | Dil Fact | Initial Wt/Vol | Final Wt/Vol | Analysis Date | Prep Batch | File     | Seq Num | M | Instr      |
|-----------|------------|------|------|----------|----------------|--------------|---------------|------------|----------|---------|---|------------|
| 7429-90-5 | Aluminum   | 200  | ND   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 13      | P | PEICPRAD4A |
| 7440-39-3 | Barium     | 10   | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-41-7 | Beryllium  | 1.2  | ND   | 1        | 0.5            | 50           | 10/20/18      | 72844      | S23293A4 | 13      | P | PEICP4A    |
| 7440-70-2 | Calcium    | 1000 | ND   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 13      | P | PEICPRAD4A |
| 7440-47-3 | Chromium   | 5.0  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-48-4 | Cobalt     | 2.5  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-50-8 | Copper     | 5.0  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7439-89-6 | Iron       | 200  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7439-92-1 | Lead       | 5.0  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7439-95-4 | Magnesium  | 500  | ND   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 13      | P | PEICPRAD4A |
| 7439-96-5 | Manganese  | 10   | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7439-98-7 | Molybdenum | 2.5  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-02-0 | Nickel     | 5.0  | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-09-7 | Potassium  | 500  | ND   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 13      | P | PEICPRAD4A |
| 7440-23-5 | Sodium     | 250  | ND   | 1        | 0.5            | 50           | 10/21/18      | 72844      | S23293C4 | 13      | P | PEICPRAD4A |
| 7440-32-6 | Titanium   | 10   | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-62-2 | Vanadium   | 10   | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |
| 7440-66-6 | Zinc       | 10   | ND   | 1        | 0.5            | 50           | 10/19/18      | 72844      | S23293A3 | 13      | P | PEICP3A    |

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 72844 (167)

% Solid: 0

Lab Name: Hampton-Clarke

Client Id: MB 72844 (167)

Units: MG/KG

Lab Code:

Matrix: SOIL

Level: LOW

| Cas No.   | Analyte | RL    | Conc | Dil Fact | Initial<br>Wt/Vol | Final<br>Wt/Vol | Analysis Date | Prep<br>Batch | File    | Seq<br>Num | M  | Instr  |
|-----------|---------|-------|------|----------|-------------------|-----------------|---------------|---------------|---------|------------|----|--------|
| 7439-97-6 | Mercury | 0.083 | ND   | 1        | 0.15              | 25              | 10/20/18      | 72844         | H23293S | 11         | CV | HGCV3A |

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# FORM 3

## (ICB/CCB/MB Summary)

Date Analyzed: 10/24/18

Data File: W102418BNEW

Prep Batch: 72824

Reporting Limits Used: 200.7/200.8/245.1

Instrument: MS3\_7700AQA

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | CCB V-289727-11 | CCB V-289727-23 | CCB V-289727-31 | MB 72824-12 |
|-----------|-----------------|-----------------|-----------------|-------------|
| Antimony  | 2 U             | 2 U             | 2 U             | 2.5 U       |
| Arsenic   | .8 U            | .8 U            | .8 U            | 1 U         |
| Beryllium | .6 U            | .6 U            | .6 U            | .75 U       |
| Cadmium   | .8 U            | .8 U            | .8 U            | 1 U         |
| Cobalt    | .8 U            | .8 U            | .8 U            | 1 U         |
| Lead      | .6 U            | .6 U            | .6 U            | .75 U       |
| Selenium  | 4 U             | 4 U             | 4 U             | 5 U         |
| Thallium  | 1.2 U           | 1.2 U           | 1.2 U           | 1.5 U       |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.



# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/23/18

Data File: A102318BNEW

Prep Batch: 72842

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: MS3\_7700SWA

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-290258-<br>10 | CCB V-290258-<br>16 | CCB V-290258-<br>28 | CCB V-290258-<br>39 | MB 72842-17 |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------|
| Antimony  | .75 U               | 1.5 U               | 1.5 U               | 1.5 U               | 1.5 U       |
| Arsenic   | .5 U                | 1 U                 | 1 U                 | 1 U                 | 1 U         |
| Beryllium | 25 U                | .5 U                | .5 U                | .5 U                | .5 U        |
| Cadmium   | .5 U                | 1 U                 | 1 U                 | 1 U                 | 1 U         |
| Cobalt    | .5 U                | 1 U                 | 1 U                 | 1 U                 | 1 U         |
| Lead      | .75 U               | 1.5 U               | 1.5 U               | 1.5 U               | 1.5 U       |
| Selenium  | 2.5 U               | 5 U                 | 5 U                 | 5 U                 | 5 U         |
| Thallium  | .5 U                | 1 U                 | 1 U                 | 1 U                 | 1 U         |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/20/18

Data File: S101918DNEW

Prep Batch: 72845

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: MS3\_7700SWA

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-289735-<br>10 | CCB V-289735-<br>17 | CCB V-289735-<br>29 | CCB V-289735-<br>37 | MB 72845-18 |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------|
| Antimony  | 2 U                 | 4 U                 | 4 U                 | 4 U                 | 400 U       |
| Arsenic   | 5 U                 | 1 U                 | 1 U                 | 1 U                 | 100 U       |
| Beryllium | 5 U                 | 1 U                 | 1 U                 | 1 U                 | 100 U       |
| Cadmium   | 1 U                 | 2 U                 | 2 U                 | 2 U                 | 200 U       |
| Selenium  | 5 U                 | 10 U                | 10 U                | 10 U                | 1000 U      |
| Silver    | 5 U                 | 1 U                 | 1 U                 | 1 U                 | 100 U       |
| Thallium  | 1 U                 | 2 U                 | 2 U                 | 2 U                 | 200 U       |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.

for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

# **FORM 3** **(ICB/CCB/MB Summary)**

Date Analyzed: 10/19/18  
 Data File: A23190F2  
 Prep Batch: 72824  
 Reporting Limits Used: 200.7/200.8/245.1  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 8101509

Lab Name: Hampton-Clarke  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

| Analyte   | ICB V-287319-<br>8 | CCB V-287319-<br>12 | CCB V-287319-<br>23 | CCB V-287319-<br>28 | CCB V-287319-<br>38 | CCB V-287319-<br>49 | CCB V-287319-<br>60 | CCB V-287319-<br>72 |
|-----------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum  | .2 U               | .2 U                | .2 U                | .2 U                | .2 U                | .2 U                | .2 U                | .2 U                |
| Barium    | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Calcium   | 2 U                | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 |
| Chromium  | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Copper    | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Iron      | .3 U               | .3 U                | .3 U                | .3 U                | .3 U                | .3 U                | .3 U                | .3 U                |
| Magnesium | 2 U                | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 | 2 U                 |
| Manganese | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Nickel    | .02 U              | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               |
| Silver    | .02 U              | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               | .02 U               |
| Vanadium  | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Zinc      | .05 U              | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |

| Analyte   | MB 72824<br>(0.5)-39 |
|-----------|----------------------|
| Aluminum  | .1 U                 |
| Barium    | .025 U               |
| Calcium   | 1 U                  |
| Chromium  | .025 U               |
| Copper    | .025 U               |
| Iron      | .15 U                |
| Magnesium | 1 U                  |
| Manganese | .025 U               |
| Nickel    | .01 U                |
| Silver    | .01 U                |
| Vanadium  | .025 U               |
| Zinc      | .025 U               |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.



# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/22/18

Data File: SW23291A2

Prep Batch: 72842

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICP2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>24 | CCB V-287319-<br>35 | CCB V-287319-<br>46 | MB 72842 (1)-<br>13 |
|-----------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum  | .1 U               | .2 U                | .2 U                | .2 U                | .2 U                | .1 U                |
| Barium    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |
| Calcium   | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 5 U                 | 2.5 U               |
| Chromium  | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |
| Copper    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |
| Iron      | .15 U              | .3 U                | .3 U                | .3 U                | .3 U                | .15 U               |
| Magnesium | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 5 U                 | 2.5 U               |
| Manganese | .02 U              | .04 U               | .04 U               | .04 U               | .04 U               | .02 U               |
| Nickel    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |
| Silver    | .01 U              | .02 U               | .02 U               | .02 U               | .02 U               | .01 U               |
| Vanadium  | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |
| Zinc      | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .025 U              |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.

for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/22/18

Data File: SW23291B2

Prep Batch: 72842

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICPRAD2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>24 | CCB V-287319-<br>33 | MB 72842 (1)-<br>13 |
|-----------|--------------------|---------------------|---------------------|---------------------|---------------------|
| Potassium | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 2.5 U               |
| Sodium    | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 2.5 U               |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.

**FORM 3**  
**(ICB/CCB/MB Summary)**

Date Analyzed: 10/23/18

Data File: SW23291C2

Prep Batch: 72842

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICPRAD2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte | ICB V-287319-<br>6 | CCB V-287319-<br>18 |
|---------|--------------------|---------------------|
| Sodium  | 2.5 U              | 5 U                 |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.

**FORM 3**  
**(ICB/CCB/MB Summary)**

Date Analyzed: 10/20/18  
Data File: H23291SW  
Prep Batch: 72842  
Reporting Limits Used: 6010D, 6020B, 7470A, 7471B  
Instrument: HGCV1A  
Units: All units in ppm except Hg and icp-ms in ppb  
Project Number: 8101509

Lab Name: Hampton-Clarke  
Lab Code:  
Contract:  
Nras No:  
Sdg No:  
Case No:

| Analyte | ICB-10 | CCB-22 | CCB-29 | MB 72842 (1)-<br>11 |
|---------|--------|--------|--------|---------------------|
| Mercury | .5 U   | .5 U   | .5 U   | .5 U                |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.



# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/19/18

Data File: S23293C3

Prep Batch: 72844

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICP3A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>22 | CCB V-287319-<br>28 | CCB V-287319-<br>32 |
|-----------|--------------------|---------------------|---------------------|---------------------|---------------------|
| Cobalt    | .0125 U            | .025 U              | .025 U              | .025 U              | .025 U              |
| Copper    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               |
| Iron      | 10 U               | 20 U                | 20 U                | 20 U                | 20 U                |
| Manganese | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                |
| Vanadium  | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.

# FORM 3

## (ICB/CCB/MB Summary)

Date Analyzed: 10/19/18

Data File: S23293A3

Prep Batch: 72844

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICP3A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte  | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>24 | MB 72844<br>(100)-13 |
|----------|--------------------|---------------------|---------------------|----------------------|
| Barium   | .05 U              | .1 U                | .1 U                | 5 U                  |
| Chromium | .025 U             | .05 U               | .05 U               | 2.5 U                |
| Cobalt   | .0125 U            | .025 U              | .025 U              | 1.3 U                |
| Copper   | .025 U             | .05 U               | .05 U               | 2.5 U                |
| Iron     | 10 U               | 20 U                | 20 U                | 1000 U               |
| Lead     | .025 U             | .05 U               | .05 U               | 2.5 U                |
| Nickel   | .025 U             | .05 U               | .05 U               | 2.5 U                |
| Vanadium | .05 U              | .1 U                | .1 U                | 5 U                  |
| Zinc     | .05 U              | .1 U                | .1 U                | 5 U                  |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.

for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/19/18

Data File: S23293B3

Prep Batch: 72844

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICP3A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>22 | CCB V-287319-<br>34 | CCB V-287319-<br>43 | CCB V-287319-<br>52 |
|-----------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Barium    | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                | .1 U                |
| Chromium  | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Cobalt    | .0125 U            | .025 U              | .025 U              | .025 U              | .025 U              | .025 U              |
| Copper    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Iron      | 10 U               | 20 U                | 20 U                | 20 U                | 20 U                | 20 U                |
| Lead      | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Manganese | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                | .1 U                |
| Nickel    | .025 U             | .05 U               | .05 U               | .05 U               | .05 U               | .05 U               |
| Vanadium  | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                | .1 U                |
| Zinc      | .05 U              | .1 U                | .1 U                | .1 U                | .1 U                | .1 U                |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.

for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

# FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 10/21/18

Data File: S23293C4

Prep Batch: 72844

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: PEICPRAD4A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte   | ICB V-287319-<br>6 | CCB V-287319-<br>12 | CCB V-287319-<br>24 | CCB V-287319-<br>30 | MB 72844<br>(100)-13 |  |  |
|-----------|--------------------|---------------------|---------------------|---------------------|----------------------|--|--|
| Aluminum  | 1 U                | 2 U                 | 2 U                 | 2 U                 | 100 U                |  |  |
| Calcium   | 5 U                | 10 U                | 10 U                | 10 U                | 500 U                |  |  |
| Magnesium | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 250 U                |  |  |
| Potassium | 2.5 U              | 5 U                 | 5 U                 | 5 U                 | 250 U                |  |  |
| Sodium    | 1.25 U             | 2.5 U               | 2.5 U               | 2.5 U               | 125 U                |  |  |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.

**FORM 3**  
**(ICB/CCB/MB Summary)**

Date Analyzed: 10/20/18

Data File: H23293S

Prep Batch: 72844

Reporting Limits Used: 6010D, 6020B, 7470A, 7471B

Instrument: HGCV3A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 8101509

Lab Name: Hampton-Clarke

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

| Analyte | ICB-10 | CCB-22 | CCB-28 | MB 72844<br>(167)-11 |  |  |  |  |  |
|---------|--------|--------|--------|----------------------|--|--|--|--|--|
| Mercury | .5 U   | .5 U   | .5 U   | 83 U                 |  |  |  |  |  |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

**FORM 3**  
**(ICB/CCB/MB Summary)**

Date Analyzed: 10/24/18  
Data File: A23276A2  
Prep Batch: 72866  
Reporting Limits Used: 200.7/200.8/245.1  
Instrument: PEICPRAD2A  
Units: All units in ppm except Hg and icp-ms in ppb  
Project Number: 8101509

Lab Name: Hampton-Clarke  
Lab Code:  
Contract:  
Nras No:  
Sdg No:  
Case No:

| Analyte   | ICB V-287319-<br>7 | CCB V-287319-<br>19 | CCB V-287319-<br>29 | MB 72866<br>(0.5)-10 |  |  |  |
|-----------|--------------------|---------------------|---------------------|----------------------|--|--|--|
| Potassium | 5 U                | 5 U                 | 5 U                 | 2.5 U                |  |  |  |
| Sodium    | 5 U                | 5 U                 | 5 U                 | 2.5 U                |  |  |  |

**Notes:** a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.  
for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.  
u-indicates result below reporting criteria.

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72824

**8101509 0228**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: MSD |         | Matrix: AQUEOUS |          | SampleID: AD07161-005 |             |      |           |          |          |       |      |        |        |
|----------------|---------|-----------------|----------|-----------------------|-------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte        | BatchId | DF              | Data Fil | Seq#                  | NS Data Fil | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum       | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 5.2088    | 0.2U     | 5.0000   | 104   |      | 70     | 130    |
| Barium         | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.6641    | 0.1872   | 0.5000   | 95    |      | 70     | 130    |
| Calcium        | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 360.6140  | 320.4960 | 50.000   | 80    |      | 70     | 130    |
| Chromium       | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.4707    | 0.05U    | 0.5000   | 94    |      | 70     | 130    |
| Copper         | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.4986    | 0.05U    | 0.5000   | 100   |      | 70     | 130    |
| Iron           | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 6.7400    | 2.0829   | 5.0000   | 93    |      | 70     | 130    |
| Magnesium      | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 95.3269   | 47.2981  | 50.000   | 96    |      | 70     | 130    |
| Manganese      | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 2.3373    | 1.9205   | 0.5000   | 83    |      | 70     | 130    |
| Mercury        | 72824   | 1               | H23276A  | 17                    | H23276A     | 14   | 9.9320    | 0.2U     | 10       | 99    |      | 70     | 130    |
| Nickel         | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.4639    | 0.02U    | 0.5000   | 93    |      | 70     | 130    |
| Silver         | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.0174    | 0.02U    | 0.1000   | 0     | a    | 70     | 130    |
| Vanadium       | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.4790    | 0.05U    | 0.5000   | 96    |      | 70     | 130    |
| Zinc           | 72824   | 1               | A23190F2 | 45                    | A23190F2    | 42   | 0.5086    | 0.05U    | 0.5000   | 102   |      | 70     | 130    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72824

**8101509 0229**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: PS |    | Matrix: AQUEOUS |      | SampleID: AD07161-005 |      |           |          |          |       |      |        |        |
|---------------|----|-----------------|------|-----------------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte       | DF | Data Fil        | Seq# | NS Data Fil           | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum      | 1  | A23190F2        | 46   | A23190F2              | 42   | 5.5003    | 0.2U     | 5.00     | 110   |      | 85     | 115    |
| Barium        | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.7043    | 0.1872   | 0.500    | 103   |      | 85     | 115    |
| Calcium       | 1  | A23190F2        | 46   | A23190F2              | 42   | 373.8370  | 320.4960 | 50       | 107   |      | 85     | 115    |
| Chromium      | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.5147    | 0.05U    | 0.500    | 103   |      | 85     | 115    |
| Copper        | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.5415    | 0.05U    | 0.500    | 108   |      | 85     | 115    |
| Iron          | 1  | A23190F2        | 46   | A23190F2              | 42   | 7.2210    | 2.0829   | 5.0      | 103   |      | 85     | 115    |
| Magnesium     | 1  | A23190F2        | 46   | A23190F2              | 42   | 108.9750  | 47.2981  | 50       | 123   | a    | 85     | 115    |
| Manganese     | 1  | A23190F2        | 46   | A23190F2              | 42   | 2.3929    | 1.9205   | 0.500    | 94    |      | 85     | 115    |
| Nickel        | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.5052    | 0.02U    | 0.500    | 101   |      | 85     | 115    |
| Silver        | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.0960    | 0.02U    | .100     | 96    |      | 85     | 115    |
| Vanadium      | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.5220    | 0.05U    | 0.500    | 104   |      | 85     | 115    |
| Zinc          | 1  | A23190F2        | 46   | A23190F2              | 42   | 0.5320    | 0.05U    | 0.500    | 106   |      | 85     | 115    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount



**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72842

**8101509 0230**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: PS |    |          | Matrix: AQUEOUS |             |      | SampleID: AD07146-004 |          |          |       |      |        |        |
|---------------|----|----------|-----------------|-------------|------|-----------------------|----------|----------|-------|------|--------|--------|
| Analyte       | DF | Data Fil | Seq#            | NS Data Fil | Seq# | Spk Conc:             | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum      | 1  | SW23291  | 20              | SW23291     | 16   | 5.6589                | 0.3296   | 5.000    | 107   |      | 75     | 125    |
| Barium        | 1  | SW23291  | 20              | SW23291     | 16   | 0.6183                | 0.0929   | .5       | 105   |      | 75     | 125    |
| Calcium       | 1  | SW23291  | 20              | SW23291     | 16   | 274.7770              | 209.2000 | 50.0     | 131   | b    | 75     | 125    |
| Chromium      | 1  | SW23291  | 20              | SW23291     | 16   | 0.5297                | 0.05U    | .5000    | 106   |      | 75     | 125    |
| Copper        | 1  | SW23291  | 20              | SW23291     | 16   | 0.5802                | 0.05U    | 0.5      | 116   |      | 75     | 125    |
| Iron          | 1  | SW23291  | 20              | SW23291     | 16   | 151.6240              | 149.4230 | 5.000    | 44    | b    | 75     | 125    |
| Magnesium     | 1  | SW23291  | 20              | SW23291     | 16   | 102.7670              | 34.1482  | 50.0     | 137   | a    | 75     | 125    |
| Manganese     | 1  | SW23291  | 20              | SW23291     | 16   | 3.7745                | 3.3107   | .5000    | 93    |      | 75     | 125    |
| Nickel        | 1  | SW23291  | 20              | SW23291     | 16   | 0.5347                | 0.05U    | .5000    | 107   |      | 75     | 125    |
| Potassium     | 1  | SW23291  | 20              | SW23291     | 16   | 93.6855               | 14.1322  | 50       | 159   | a    | 75     | 125    |
| Silver        | 1  | SW23291  | 20              | SW23291     | 16   | 0.0782                | 0.02U    | 0.100    | 78    |      | 75     | 125    |
| Sodium        | 1  | SW23291  | 15              | SW23291     | 11   | 398.4400              | 354.9810 | 50       | 87    |      | 75     | 125    |
| Vanadium      | 1  | SW23291  | 20              | SW23291     | 16   | 0.5399                | 0.05U    | .5000    | 108   |      | 75     | 125    |
| Zinc          | 1  | SW23291  | 20              | SW23291     | 16   | 0.5610                | 0.05U    | 0.500    | 112   |      | 75     | 125    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72845

**8101509 0231**

Instrument Type: ICPMS

Analytical Method(s):6020B/200.8

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: LCSMR |         | Matrix: SOIL |          | SampleID: LCS MR 72845 |           |          |       |      |        |        |  |
|------------------|---------|--------------|----------|------------------------|-----------|----------|-------|------|--------|--------|--|
| Analyte          | BatchId | DF           | Data Fil | Seq#:                  | Spk Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |  |
| Antimony         | 72845   | 1            | S101918D | 20                     | 48.1260   | 94.1     | 51    |      | 0.021  | 206    |  |
| Arsenic          | 72845   | 1            | S101918D | 20                     | 55.8320   | 58.5     | 95    |      | 83     | 117    |  |
| Beryllium        | 72845   | 1            | S101918D | 20                     | 56.0150   | 59.7     | 94    |      | 83     | 118    |  |
| Cadmium          | 72845   | 1            | S101918D | 20                     | 252.4080  | 249      | 101   |      | 82     | 118    |  |
| Selenium         | 72845   | 1            | S101918D | 20                     | 139.5660  | 145      | 96    |      | 78     | 121    |  |
| Silver           | 72845   | 1            | S101918D | 20                     | 45.8100   | 51.0     | 90    |      | 79     | 121    |  |
| Thallium         | 72845   | 1            | S101918D | 20                     | 190.0660  | 188      | 101   |      | 80     | 120    |  |

| TxtQcType: LCS |         | Matrix: SOIL |          | SampleID: LCS 72845 |           |          |       |      |        |        |  |
|----------------|---------|--------------|----------|---------------------|-----------|----------|-------|------|--------|--------|--|
| Analyte        | BatchId | DF           | Data Fil | Seq#:               | Spk Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |  |
| Antimony       | 72845   | 1            | S101918D | 19                  | 48.2570   | 94.1     | 51    |      | 0.021  | 206    |  |
| Arsenic        | 72845   | 1            | S101918D | 19                  | 55.4600   | 58.5     | 95    |      | 83     | 117    |  |
| Beryllium      | 72845   | 1            | S101918D | 19                  | 55.9850   | 59.7     | 94    |      | 83     | 118    |  |
| Cadmium        | 72845   | 1            | S101918D | 19                  | 250.0020  | 249      | 100   |      | 82     | 118    |  |
| Selenium       | 72845   | 1            | S101918D | 19                  | 139.4160  | 145      | 96    |      | 78     | 121    |  |
| Silver         | 72845   | 1            | S101918D | 19                  | 46.0860   | 51.0     | 90    |      | 79     | 121    |  |
| Thallium       | 72845   | 1            | S101918D | 19                  | 190.8940  | 188      | 102   |      | 80     | 120    |  |

| TxtQcType: MSD |         | Matrix: SOIL |          | SampleID: AD07161-002 |             |      |           |          |          |       |      |        |        |
|----------------|---------|--------------|----------|-----------------------|-------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte        | BatchId | DF           | Data Fil | Seq#:                 | NS Data Fil | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Antimony       | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 80.7640   | 4U       | 250      | 32    | a    | 75     | 125    |
| Arsenic        | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 209.3960  | 3.4560   | 250      | 82    |      | 75     | 125    |
| Beryllium      | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 198.7020  | 1U       | 250      | 79    |      | 75     | 125    |
| Cadmium        | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 210.5850  | 2U       | 250      | 84    |      | 75     | 125    |
| Selenium       | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 203.7350  | 10U      | 250      | 81    |      | 75     | 125    |
| Silver         | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 36.6550   | 1U       | 50       | 73    | a    | 75     | 125    |
| Thallium       | 72845   | 1            | S101918D | 25                    | S101918D    | 21   | 215.2190  | 2U       | 250      | 86    |      | 75     | 125    |

| TxtQcType: MS |         | Matrix: SOIL |          |       | SampleID: AD07161-002 |      |           |          |          |       |      |        |        |
|---------------|---------|--------------|----------|-------|-----------------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte       | BatchId | DF           | Data Fil | Seq#: | NS Data Fil           | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Antimony      | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 64.4650   | 4U       | 250      | 26    | a    | 75     | 125    |
| Arsenic       | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 200.2730  | 3.4560   | 250      | 79    |      | 75     | 125    |
| Beryllium     | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 181.1020  | 1U       | 250      | 72    | a    | 75     | 125    |
| Cadmium       | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 201.1190  | 2U       | 250      | 80    |      | 75     | 125    |
| Selenium      | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 191.9490  | 10U      | 250      | 77    |      | 75     | 125    |
| Silver        | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 34.7870   | 1U       | 50       | 70    | a    | 75     | 125    |
| Thallium      | 72845   | 1            | S101918D | 24    | S101918D              | 21   | 200.9700  | 2U       | 250      | 80    |      | 75     | 125    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72844

**8101509 0232**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: PS |    | Matrix: SOIL |      | SampleID: AD07161-002 |      |           |          |          |       |      |        |        |
|---------------|----|--------------|------|-----------------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte       | DF | Data Fil     | Seq# | NS Data Fil           | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum      | 1  | S23293C4     | 20   | S23293C4              | 16   | 29.3872   | 23.4878  | 5.0      | 118   |      | 75     | 125    |
| Barium        | 1  | S23293A3     | 20   | S23293A3              | 16   | 1.6557    | 1.1766   | 0.50     | 96    |      | 75     | 125    |
| Calcium       | 1  | S23293C4     | 20   | S23293C4              | 16   | 75.2221   | 20.6923  | 50       | 109   |      | 75     | 125    |
| Chromium      | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.5897    | 0.0682   | 0.50     | 104   |      | 75     | 125    |
| Cobalt        | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.6009    | 0.0406   | 0.50     | 112   |      | 75     | 125    |
| Copper        | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.5795    | 0.0544   | 0.50     | 105   |      | 75     | 125    |
| Iron          | 1  | S23293A3     | 20   | S23293A3              | 16   | 111.4300  | 112.0070 | 5.0      | -12   | b    | 75     | 125    |
| Lead          | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.6197    | 0.0747   | 0.50     | 109   |      | 75     | 125    |
| Magnesium     | 1  | S23293C4     | 20   | S23293C4              | 16   | 63.1811   | 9.5206   | 50       | 107   |      | 75     | 125    |
| Manganese     | 1  | S23293C3     | 17   | S23293C3              | 13   | 5.7227    | 6.0199   | 0.50     | -59   | b    | 75     | 125    |
| Nickel        | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.6317    | 0.05U    | 0.50     | 126   | a    | 75     | 125    |
| Potassium     | 1  | S23293C4     | 20   | S23293C4              | 16   | 58.1502   | 5.4776   | 50       | 105   |      | 75     | 125    |
| Sodium        | 1  | S23293C4     | 20   | S23293C4              | 16   | 53.9446   | 2.5U     | 50       | 108   |      | 75     | 125    |
| Vanadium      | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.6196    | 0.1U     | 0.50     | 124   |      | 75     | 125    |
| Zinc          | 1  | S23293A3     | 20   | S23293A3              | 16   | 0.7567    | 0.2487   | 0.50     | 102   |      | 75     | 125    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72844

**8101509 0233**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: LCSMR |         | Matrix: SOIL |          | SampleID: LCS MR 72844 |           |          |       |      |        |        |
|------------------|---------|--------------|----------|------------------------|-----------|----------|-------|------|--------|--------|
| Analyte          | BatchId | DF           | Data Fil | Seq#:                  | Spk Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum         | 72844   | 1            | S23293C4 | 15                     | 59.3360   | 87.2     | 68    |      | 52     | 148    |
| Barium           | 72844   | 1            | S23293A3 | 15                     | 1.7559    | 1.83     | 96    |      | 82     | 119    |
| Calcium          | 72844   | 1            | S23293C4 | 15                     | 44.8667   | 46.0     | 98    |      | 81     | 119    |
| Chromium         | 72844   | 1            | S23293A3 | 15                     | 0.6520    | 0.649    | 100   |      | 81     | 119    |
| Cobalt           | 72844   | 1            | S23293A3 | 15                     | 0.4738    | 0.450    | 105   |      | 84     | 116    |
| Copper           | 72844   | 1            | S23293A3 | 15                     | 1.1153    | 1.13     | 99    |      | 83     | 117    |
| Iron             | 72844   | 1            | S23293A3 | 15                     | 105.8780  | 136      | 78    |      | 59     | 141    |
| Lead             | 72844   | 1            | S23293A3 | 15                     | 1.7014    | 1.61     | 106   |      | 81     | 119    |
| Magnesium        | 72844   | 1            | S23293C4 | 15                     | 19.4418   | 23.1     | 84    |      | 76     | 124    |
| Manganese        | 72844   | 1            | S23293A3 | 15                     | 2.0463    | 2.19     | 93    |      | 82     | 119    |
| Mercury          | 72844   | 5            | H23293S  | 15                     | 12.8300   | 70.8     | 91    |      | 70     | 130    |
| Nickel           | 72844   | 1            | S23293A3 | 15                     | 1.6544    | 1.47     | 113   |      | 82     | 118    |
| Potassium        | 72844   | 1            | S23293C4 | 15                     | 15.9208   | 20.3     | 78    |      | 70     | 130    |
| Sodium           | 72844   | 1            | S23293C4 | 15                     | 25.0912   | 24.3     | 103   |      | 73     | 126    |
| Vanadium         | 72844   | 1            | S23293A3 | 15                     | 1.1359    | 1.25     | 91    |      | 78     | 122    |
| Zinc             | 72844   | 1            | S23293A3 | 15                     | 1.2018    | 1.21     | 99    |      | 80     | 119    |

| TxtQcType: LCS |         | Matrix: SOIL |          | SampleID: LCS 72844 |           |          |       |      |        |        |
|----------------|---------|--------------|----------|---------------------|-----------|----------|-------|------|--------|--------|
| Analyte        | BatchId | DF           | Data Fil | Seq#:               | Spk Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum       | 72844   | 1            | S23293C4 | 14                  | 58.7960   | 87.2     | 67    |      | 52     | 148    |
| Barium         | 72844   | 1            | S23293A3 | 14                  | 1.7386    | 1.83     | 95    |      | 82     | 119    |
| Calcium        | 72844   | 1            | S23293C4 | 14                  | 44.7865   | 46.0     | 97    |      | 81     | 119    |
| Chromium       | 72844   | 1            | S23293A3 | 14                  | 0.6041    | 0.649    | 93    |      | 81     | 119    |
| Cobalt         | 72844   | 1            | S23293A3 | 14                  | 0.4608    | 0.450    | 102   |      | 84     | 116    |
| Copper         | 72844   | 1            | S23293A3 | 14                  | 1.0886    | 1.13     | 96    |      | 83     | 117    |
| Iron           | 72844   | 1            | S23293A3 | 14                  | 90.5429   | 136      | 67    |      | 59     | 141    |
| Lead           | 72844   | 1            | S23293A3 | 14                  | 1.5952    | 1.61     | 99    |      | 81     | 119    |
| Magnesium      | 72844   | 1            | S23293C4 | 14                  | 18.9149   | 23.1     | 82    |      | 76     | 124    |
| Manganese      | 72844   | 1            | S23293A3 | 14                  | 1.9829    | 2.19     | 91    |      | 82     | 119    |
| Mercury        | 72844   | 5            | H23293S  | 14                  | 12.3400   | 70.8     | 87    |      | 70     | 130    |
| Nickel         | 72844   | 1            | S23293A3 | 14                  | 1.5507    | 1.47     | 105   |      | 82     | 118    |
| Potassium      | 72844   | 1            | S23293C4 | 14                  | 15.4093   | 20.3     | 76    |      | 70     | 130    |
| Sodium         | 72844   | 1            | S23293C4 | 14                  | 26.9846   | 24.3     | 111   |      | 73     | 126    |
| Vanadium       | 72844   | 1            | S23293A3 | 14                  | 1.0820    | 1.25     | 87    |      | 78     | 122    |
| Zinc           | 72844   | 1            | S23293A3 | 14                  | 1.1605    | 1.21     | 96    |      | 80     | 119    |

| TxtQcType: MSD |         | Matrix: SOIL |          | SampleID: AD07161-002 |             |      |           |          |          |       |      |        |        |
|----------------|---------|--------------|----------|-----------------------|-------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte        | BatchId | DF           | Data Fil | Seq#:                 | NS Data Fil | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum       | 72844   | 1            | S23293C4 | 19                    | S23293C4    | 16   | 15.5064   | 23.4878  | 5.0      | -160  | b    | 75     | 125    |
| Barium         | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.9085    | 1.1766   | 0.5      | -54   | a    | 75     | 125    |
| Calcium        | 72844   | 1            | S23293C4 | 19                    | S23293C4    | 16   | 54.9540   | 20.6923  | 50       | 69    | a    | 75     | 125    |
| Chromium       | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.6847    | 0.0682   | 0.5      | 123   |      | 75     | 125    |
| Cobalt         | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.4836    | 0.0406   | 0.5      | 89    |      | 75     | 125    |
| Copper         | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.4576    | 0.0544   | 0.5      | 81    |      | 75     | 125    |
| Iron           | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 48.7751   | 112.0070 | 5.0      | -1300 | b    | 75     | 125    |
| Lead           | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.4956    | 0.0747   | 0.5      | 84    |      | 75     | 125    |
| Magnesium      | 72844   | 1            | S23293C4 | 19                    | S23293C4    | 16   | 46.6694   | 9.5206   | 50       | 74    | a    | 75     | 125    |
| Manganese      | 72844   | 10           | S23293C3 | 16                    | S23293C3    | 13   | 2.4670    | 6.0199   | 0.5      | -7100 | b    | 75     | 125    |
| Mercury        | 72844   | 1            | H23293S  | 19                    | H23293S     | 16   | 9.7520    | .5U      | 10       | 98    |      | 75     | 125    |
| Nickel         | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.5463    | 0.05U    | 0.5      | 109   |      | 75     | 125    |
| Potassium      | 72844   | 1            | S23293C4 | 19                    | S23293C4    | 16   | 45.3185   | 5.4776   | 50       | 80    |      | 75     | 125    |
| Sodium         | 72844   | 1            | S23293C4 | 19                    | S23293C4    | 16   | 44.8001   | 2.5U     | 50       | 90    |      | 75     | 125    |
| Vanadium       | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.4830    | 0.1U     | 0.5      | 97    |      | 75     | 125    |
| Zinc           | 72844   | 1            | S23293A3 | 19                    | S23293A3    | 16   | 0.5859    | 0.2487   | 0.5      | 67    | a    | 75     | 125    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 72844

**8101509 0234**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: MS |         | Matrix: SOIL |          | SampleID: AD07161-002 |             |      |           |          |          |       |      |        |        |
|---------------|---------|--------------|----------|-----------------------|-------------|------|-----------|----------|----------|-------|------|--------|--------|
| Analyte       | BatchId | DF           | Data Fil | Seq#                  | NS Data Fil | Seq# | Spk Conc: | NS Conc: | Spk Adde | Recov | Qual | Lo Lim | Hi Lim |
| Aluminum      | 72844   | 1            | S23293C4 | 18                    | S23293C4    | 16   | 13.8787   | 23.4878  | 5.0      | -190  | b    | 75     | 125    |
| Barium        | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.8405    | 1.1766   | 0.5      | -67   | a    | 75     | 125    |
| Calcium       | 72844   | 1            | S23293C4 | 18                    | S23293C4    | 16   | 53.7032   | 20.6923  | 50       | 66    | a    | 75     | 125    |
| Chromium      | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.4737    | 0.0682   | 0.5      | 81    |      | 75     | 125    |
| Cobalt        | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.4878    | 0.0406   | 0.5      | 89    |      | 75     | 125    |
| Copper        | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.4586    | 0.0544   | 0.5      | 81    |      | 75     | 125    |
| Iron          | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 41.2068   | 112.0070 | 5.0      | -1400 | b    | 75     | 125    |
| Lead          | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.5029    | 0.0747   | 0.5      | 86    |      | 75     | 125    |
| Magnesium     | 72844   | 1            | S23293C4 | 18                    | S23293C4    | 16   | 45.8964   | 9.5206   | 50       | 73    | a    | 75     | 125    |
| Manganese     | 72844   | 10           | S23293C3 | 15                    | S23293C3    | 13   | 2.1529    | 6.0199   | 0.5      | -7700 | b    | 75     | 125    |
| Mercury       | 72844   | 1            | H23293S  | 18                    | H23293S     | 16   | 9.9570    | .5U      | 10       | 100   |      | 75     | 125    |
| Nickel        | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.5084    | 0.05U    | 0.5      | 102   |      | 75     | 125    |
| Potassium     | 72844   | 1            | S23293C4 | 18                    | S23293C4    | 16   | 44.8776   | 5.4776   | 50       | 79    |      | 75     | 125    |
| Sodium        | 72844   | 1            | S23293C4 | 18                    | S23293C4    | 16   | 44.8054   | 2.5U     | 50       | 90    |      | 75     | 125    |
| Vanadium      | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.4831    | 0.1U     | 0.5      | 97    |      | 75     | 125    |
| Zinc          | 72844   | 1            | S23293A3 | 18                    | S23293A3    | 16   | 0.5507    | 0.2487   | 0.5      | 60    | a    | 75     | 125    |

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 72824

**8101509 0235**

Instrument Type: ICP/HG

Analytical Method(s):6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: LCSMR |         | Matrix: AQUEOUS |       | SampleID: LCSW MR 72824 |      |          |          |     |       |
|------------------|---------|-----------------|-------|-------------------------|------|----------|----------|-----|-------|
| Analyte          | BatchId | Data Fil        | Seq#: | NS File                 | Seq# | Result 1 | Result 2 | RPD | Limit |
| Aluminum         | 72824   | A23190F2        | 41    | A23190F2                | 40   | 5.2791   | 5.4928   | 4   | 20    |
| Barium           | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5129   | 0.5319   | 3.6 | 20    |
| Calcium          | 72824   | A23190F2        | 41    | A23190F2                | 40   | 51.3323  | 52.0883  | 1.5 | 20    |
| Chromium         | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5008   | 0.5206   | 3.9 | 20    |
| Copper           | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5003   | 0.5209   | 4   | 20    |
| Iron             | 72824   | A23190F2        | 41    | A23190F2                | 40   | 5.1065   | 5.3010   | 3.7 | 20    |
| Magnesium        | 72824   | A23190F2        | 41    | A23190F2                | 40   | 51.2931  | 52.2654  | 1.9 | 20    |
| Manganese        | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5008   | 0.5143   | 2.7 | 20    |
| Mercury          | 72824   | H23276A         | 13    | H23276A                 | 12   | 10.4800  | 10.2400  | 2.3 | 20    |
| Nickel           | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5097   | 0.5296   | 3.8 | 20    |
| Silver           | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.0971   | 0.1131   | 15  | 20    |
| Vanadium         | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5037   | 0.5254   | 4.2 | 20    |
| Zinc             | 72824   | A23190F2        | 41    | A23190F2                | 40   | 0.5272   | 0.5441   | 3.2 | 20    |

| TxtQcType: MR |         | Matrix: AQUEOUS |       | SampleID: AD07161-005 |      |          |          |      |       |
|---------------|---------|-----------------|-------|-----------------------|------|----------|----------|------|-------|
| Analyte       | BatchId | Data Fil        | Seq#: | NS File               | Seq# | Result 1 | Result 2 | RPD  | Limit |
| Aluminum      | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.2U     | 0.2U     | ---  | 20    |
| Barium        | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.1857   | 0.1872   | 0.78 | 20    |
| Calcium       | 72824   | A23190F2        | 43    | A23190F2              | 42   | 319.1980 | 320.4960 | 0.41 | 20    |
| Chromium      | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.05U    | 0.05U    | ---  | 20    |
| Copper        | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.05U    | 0.05U    | ---  | 20    |
| Iron          | 72824   | A23190F2        | 43    | A23190F2              | 42   | 2.0418   | 2.0829   | 2    | 20    |
| Magnesium     | 72824   | A23190F2        | 43    | A23190F2              | 42   | 46.2758  | 47.2981  | 2.2  | 20    |
| Manganese     | 72824   | A23190F2        | 43    | A23190F2              | 42   | 1.8791   | 1.9205   | 2.2  | 20    |
| Mercury       | 72824   | H23276A         | 15    | H23276A               | 14   | 0.2U     | 0.2U     | ---  | 20    |
| Nickel        | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.02U    | 0.02U    | ---  | 20    |
| Silver        | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.02U    | 0.02U    | ---  | 20    |
| Vanadium      | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.05U    | 0.05U    | ---  | 20    |
| Zinc          | 72824   | A23190F2        | 43    | A23190F2              | 42   | 0.05U    | 0.05U    | ---  | 20    |

| TxtQcType: MSD |         | Matrix: AQUEOUS |       | SampleID: AD07161-005 |      |          |          |     |       |
|----------------|---------|-----------------|-------|-----------------------|------|----------|----------|-----|-------|
| Analyte        | BatchId | Data Fil        | Seq#: | MS File               | Seq# | Result 1 | Result 2 | RPD | Limit |
| Aluminum       | 72824   | A23190F2        | 45    | A23190F2              | 44   | 5.2088   | 5.3384   | 2.5 | 20    |
| Barium         | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.6641   | 0.6827   | 2.8 | 20    |
| Calcium        | 72824   | A23190F2        | 45    | A23190F2              | 44   | 360.6140 | 365.4610 | 1.3 | 20    |
| Chromium       | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.4707   | 0.4886   | 3.7 | 20    |
| Copper         | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.4986   | 0.5152   | 3.3 | 20    |
| Iron           | 72824   | A23190F2        | 45    | A23190F2              | 44   | 6.7400   | 6.9714   | 3.4 | 20    |
| Magnesium      | 72824   | A23190F2        | 45    | A23190F2              | 44   | 95.3269  | 94.3978  | .98 | 20    |
| Manganese      | 72824   | A23190F2        | 45    | A23190F2              | 44   | 2.3373   | 2.3827   | 1.9 | 20    |
| Mercury        | 72824   | H23276A         | 17    | H23276A               | 16   | 9.9320   | 10.2500  | 3.2 | 20    |
| Nickel         | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.4639   | 0.4824   | 3.9 | 20    |
| Silver         | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.0174   | 0.0991   | 140 | 20    |
| Vanadium       | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.4790   | 0.4965   | 3.6 | 20    |
| Zinc           | 72824   | A23190F2        | 45    | A23190F2              | 44   | 0.5086   | 0.5118   | .62 | 20    |

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 72845

**8101509 0236**

Instrument Type: ICPMS

Analytical Method(s):6020B/200.8

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: LCSMR |         | Matrix: SOIL |      | SampleID: LCS MR 72845 |      |          |          |      |       |
|------------------|---------|--------------|------|------------------------|------|----------|----------|------|-------|
| Analyte          | BatchId | Data Fil     | Seq# | NS File                | Seq# | Result 1 | Result 2 | RPD  | Limit |
| Antimony         | 72845   | S101918D     | 20   | S101918D               | 19   | 48.1260  | 48.2570  | .27  | 20    |
| Arsenic          | 72845   | S101918D     | 20   | S101918D               | 19   | 55.8320  | 55.4600  | .67  | 20    |
| Beryllium        | 72845   | S101918D     | 20   | S101918D               | 19   | 56.0150  | 55.9850  | .054 | 20    |
| Cadmium          | 72845   | S101918D     | 20   | S101918D               | 19   | 252.4080 | 250.0020 | .96  | 20    |
| Selenium         | 72845   | S101918D     | 20   | S101918D               | 19   | 139.5660 | 139.4160 | .11  | 20    |
| Silver           | 72845   | S101918D     | 20   | S101918D               | 19   | 45.8100  | 46.0860  | .6   | 20    |
| Thallium         | 72845   | S101918D     | 20   | S101918D               | 19   | 190.0660 | 190.8940 | .43  | 20    |

| TxtQcType: MR |         | Matrix: SOIL |      | SampleID: AD07161-002 |      |          |          |       |       |
|---------------|---------|--------------|------|-----------------------|------|----------|----------|-------|-------|
| Analyte       | BatchId | Data Fil     | Seq# | NS File               | Seq# | Result 1 | Result 2 | RPD   | Limit |
| Antimony      | 72845   | S101918D     | 22   | S101918D              | 21   | 4U       | 4U       | ---   | 20    |
| Arsenic       | 72845   | S101918D     | 22   | S101918D              | 21   | 1.1480   | 3.4560   | 100 b | 20    |
| Beryllium     | 72845   | S101918D     | 22   | S101918D              | 21   | 1U       | 1U       | ---   | 20    |
| Cadmium       | 72845   | S101918D     | 22   | S101918D              | 21   | 2U       | 2U       | ---   | 20    |
| Selenium      | 72845   | S101918D     | 22   | S101918D              | 21   | 10U      | 10U      | ---   | 20    |
| Silver        | 72845   | S101918D     | 22   | S101918D              | 21   | 1U       | 1U       | ---   | 20    |
| Thallium      | 72845   | S101918D     | 22   | S101918D              | 21   | 2U       | 2U       | ---   | 20    |

| TxtQcType: MSD |         | Matrix: SOIL |      | SampleID: AD07161-002 |      |          |          |      |       |
|----------------|---------|--------------|------|-----------------------|------|----------|----------|------|-------|
| Analyte        | BatchId | Data Fil     | Seq# | MS File               | Seq# | Result 1 | Result 2 | RPD  | Limit |
| Antimony       | 72845   | S101918D     | 25   | S101918D              | 24   | 80.7640  | 64.4650  | 22 a | 20    |
| Arsenic        | 72845   | S101918D     | 25   | S101918D              | 24   | 209.3960 | 200.2730 | 4.5  | 20    |
| Beryllium      | 72845   | S101918D     | 25   | S101918D              | 24   | 198.7020 | 181.1020 | 9.3  | 20    |
| Cadmium        | 72845   | S101918D     | 25   | S101918D              | 24   | 210.5850 | 201.1190 | 4.6  | 20    |
| Selenium       | 72845   | S101918D     | 25   | S101918D              | 24   | 203.7350 | 191.9490 | 6    | 20    |
| Silver         | 72845   | S101918D     | 25   | S101918D              | 24   | 36.6550  | 34.7870  | 5.2  | 20    |
| Thallium       | 72845   | S101918D     | 25   | S101918D              | 24   | 215.2190 | 200.9700 | 6.8  | 20    |

|               |         |              |       |                       |      |    |          |          |       |       |
|---------------|---------|--------------|-------|-----------------------|------|----|----------|----------|-------|-------|
| TxtQcType: SD |         | Matrix: SOIL |       | SampleID: AD07161-002 |      |    |          |          |       |       |
| Analyte       | BatchId | Data Fil     | Seq#: | NS File               | Seq# | DF | Result 1 | Result 2 | %Diff | Limit |
| Antimony      | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.0200   | 0.1250   | ---   | 20    |
| Arsenic       | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.7160   | 3.4560   | 3.6   | 20    |
| Beryllium     | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.0490   | 0.1870   | 31 c  | 20    |
| Cadmium       | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.0650   | 0.2790   | 16 c  | 20    |
| Selenium      | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.1940   | 0.5930   | 64 c  | 20    |
| Silver        | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.0060   | 0.0460   | ---   | 20    |
| Thallium      | 72845   | S101918D     | 23    | S101918D              | 21   | 5  | 0.0140   | 0.0990   | ---   | 20    |

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 72844

**8101509 0237**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: LCSMR |         | Matrix: SOIL |      | SampleID: LCS MR 72844 |      |          |          |     |       |
|------------------|---------|--------------|------|------------------------|------|----------|----------|-----|-------|
| Analyte          | BatchId | Data Fil     | Seq# | NS File                | Seq# | Result 1 | Result 2 | RPD | Limit |
| Aluminum         | 72844   | S23293C4     | 15   | S23293C4               | 14   | 59.3360  | 58.7960  | .91 | 20    |
| Barium           | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.7559   | 1.7386   | .98 | 20    |
| Calcium          | 72844   | S23293C4     | 15   | S23293C4               | 14   | 44.8667  | 44.7865  | .18 | 20    |
| Chromium         | 72844   | S23293A3     | 15   | S23293A3               | 14   | 0.6520   | 0.6041   | 7.6 | 20    |
| Cobalt           | 72844   | S23293A3     | 15   | S23293A3               | 14   | 0.4738   | 0.4608   | 2.8 | 20    |
| Copper           | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.1153   | 1.0886   | 2.4 | 20    |
| Iron             | 72844   | S23293A3     | 15   | S23293A3               | 14   | 105.8780 | 90.5429  | 16  | 20    |
| Lead             | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.7014   | 1.5952   | 6.4 | 20    |
| Magnesium        | 72844   | S23293C4     | 15   | S23293C4               | 14   | 19.4418  | 18.9149  | 2.7 | 20    |
| Manganese        | 72844   | S23293A3     | 15   | S23293A3               | 14   | 2.0463   | 1.9829   | 3.1 | 20    |
| Mercury          | 72844   | H23293S      | 15   | H23293S                | 14   | 12.8300  | 12.3400  | 3.9 | 20    |
| Nickel           | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.6544   | 1.5507   | 6.5 | 20    |
| Potassium        | 72844   | S23293C4     | 15   | S23293C4               | 14   | 15.9208  | 15.4093  | 3.3 | 20    |
| Sodium           | 72844   | S23293C4     | 15   | S23293C4               | 14   | 25.0912  | 26.9846  | 7.3 | 20    |
| Vanadium         | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.1359   | 1.0820   | 4.9 | 20    |
| Zinc             | 72844   | S23293A3     | 15   | S23293A3               | 14   | 1.2018   | 1.1605   | 3.5 | 20    |

| TxtQcType: MR |         | Matrix: SOIL |      | SampleID: AD07161-002 |      |          |          |      |       |
|---------------|---------|--------------|------|-----------------------|------|----------|----------|------|-------|
| Analyte       | BatchId | Data Fil     | Seq# | NS File               | Seq# | Result 1 | Result 2 | RPD  | Limit |
| Aluminum      | 72844   | S23293C4     | 17   | S23293C4              | 16   | 13.9048  | 23.4878  | 51 a | 20    |
| Barium        | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.7406   | 1.1766   | 45 a | 20    |
| Calcium       | 72844   | S23293C4     | 17   | S23293C4              | 16   | 15.6753  | 20.6923  | 28 b | 20    |
| Chromium      | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.05U    | 0.0682   | ---  | 20    |
| Cobalt        | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.025U   | 0.0406   | ---  | 20    |
| Copper        | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.05U    | 0.0544   | ---  | 20    |
| Iron          | 72844   | S23293A3     | 17   | S23293A3              | 16   | 66.5123  | 112.0070 | 51 a | 20    |
| Lead          | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.0646   | 0.0747   | 15   | 20    |
| Magnesium     | 72844   | S23293C4     | 17   | S23293C4              | 16   | 6.0010   | 9.5206   | 45 b | 20    |
| Manganese     | 72844   | S23293C3     | 14   | S23293C3              | 13   | 3.7723   | 6.0199   | 46 a | 20    |
| Mercury       | 72844   | H23293S      | 17   | H23293S               | 16   | .5U      | .5U      | ---  | 20    |
| Nickel        | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.05U    | 0.05U    | ---  | 20    |
| Potassium     | 72844   | S23293C4     | 17   | S23293C4              | 16   | 5U       | 5.4776   | ---  | 20    |
| Sodium        | 72844   | S23293C4     | 17   | S23293C4              | 16   | 2.5U     | 2.5U     | ---  | 20    |
| Vanadium      | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.1U     | 0.1U     | ---  | 20    |
| Zinc          | 72844   | S23293A3     | 17   | S23293A3              | 16   | 0.1494   | 0.2487   | 50 b | 20    |

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL



**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 72844

**8101509 0238**

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

| TxtQcType: MSD |         | Matrix: SOIL |      | SampleID: AD07161-002 |      |          |          |      |       |
|----------------|---------|--------------|------|-----------------------|------|----------|----------|------|-------|
| Analyte        | BatchId | Data Fil     | Seq# | MS File               | Seq# | Result 1 | Result 2 | RPD  | Limit |
| Aluminum       | 72844   | S23293C4     | 19   | S23293C4              | 18   | 15.5064  | 13.8787  | 11   | 20    |
| Barium         | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.9085   | 0.8405   | 7.8  | 20    |
| Calcium        | 72844   | S23293C4     | 19   | S23293C4              | 18   | 54.9540  | 53.7032  | 2.3  | 20    |
| Chromium       | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.6847   | 0.4737   | 36 a | 20    |
| Cobalt         | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.4836   | 0.4878   | .87  | 20    |
| Copper         | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.4576   | 0.4586   | .23  | 20    |
| Iron           | 72844   | S23293A3     | 19   | S23293A3              | 18   | 48.7751  | 41.2068  | 17   | 20    |
| Lead           | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.4956   | 0.5029   | 1.5  | 20    |
| Magnesium      | 72844   | S23293C4     | 19   | S23293C4              | 18   | 46.6694  | 45.8964  | 1.7  | 20    |
| Manganese      | 72844   | S23293C3     | 16   | S23293C3              | 15   | 2.4670   | 2.1529   | 14   | 20    |
| Mercury        | 72844   | H23293S      | 19   | H23293S               | 18   | 9.7520   | 9.9570   | 2.1  | 20    |
| Nickel         | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.5463   | 0.5084   | 7.2  | 20    |
| Potassium      | 72844   | S23293C4     | 19   | S23293C4              | 18   | 45.3185  | 44.8776  | .98  | 20    |
| Sodium         | 72844   | S23293C4     | 19   | S23293C4              | 18   | 44.8001  | 44.8054  | .012 | 20    |
| Vanadium       | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.4830   | 0.4831   | .024 | 20    |
| Zinc           | 72844   | S23293A3     | 19   | S23293A3              | 18   | 0.5859   | 0.5507   | 6.2  | 20    |

| TxtQcType: SD |         | Matrix: SOIL |       | SampleID: AD07161-002 |      |    |          |          |       |       |
|---------------|---------|--------------|-------|-----------------------|------|----|----------|----------|-------|-------|
| Analyte       | BatchId | Data Fil     | Seq#: | NS File               | Seq# | DF | Result 1 | Result 2 | %Diff | Limit |
| Aluminum      | 72844   | S23293C4     | 21    | S23293C4              | 16   | 5  | 4.7947   | 23.4878  | 2.1   | 10    |
| Barium        | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.2335   | 1.1766   | 0.79  | 10    |
| Calcium       | 72844   | S23293C4     | 21    | S23293C4              | 16   | 5  | 3.8241   | 20.6923  | 7.6   | 10    |
| Chromium      | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0161   | 0.0682   | 18 a  | 10    |
| Cobalt        | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0103   | 0.0406   | 27 a  | 10    |
| Copper        | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0159   | 0.0544   | 46 c  | 10    |
| Iron          | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 21.0038  | 112.0070 | 6.2   | 10    |
| Lead          | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0172   | 0.0747   | 15 c  | 10    |
| Magnesium     | 72844   | S23293C4     | 21    | S23293C4              | 16   | 5  | 1.9090   | 9.5206   | 0.26  | 10    |
| Manganese     | 72844   | S23293C3     | 18    | S23293C3              | 13   | 5  | 1.1566   | 6.0199   | 3.9   | 10    |
| Nickel        | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0073   | 0.0500   | 27 c  | 10    |
| Potassium     | 72844   | S23293C4     | 21    | S23293C4              | 16   | 5  | 1.1896   | 5.4776   | 8.6   | 10    |
| Sodium        | 72844   | S23293C4     | 21    | S23293C4              | 16   | 5  | -0.0742  | 0.2648   | ---   | 10    |
| Vanadium      | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0205   | 0.0936   | 9.4   | 10    |
| Zinc          | 72844   | S23293A3     | 21    | S23293A3              | 16   | 5  | 0.0425   | 0.2487   | 15 a  | 10    |

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

## VERITECH Wet Chem Form1 Analysis Summary

|                                 |                           |
|---------------------------------|---------------------------|
| Lab#: AD07118-001               | Project Number: 8101509   |
| Matrix Aqueous                  | Received Date: 10/15/2018 |
| Client SampleID: LMW-2-102018 U | Collect Date: 10/15/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL    | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|-------|------------|----------------|
| Chloride | CHLORIDE-ICW | 1         | 15     | mg/L   | 2.0   | 10/22/18   | 10/22/18       |
| Cyanide  | CN-WATER-MUR | 1         | ND     | mg/L   | 0.020 | 10/17/18   | 10/17/18       |

|                                 |                           |
|---------------------------------|---------------------------|
| Lab#: AD07118-003               | Project Number: 8101509   |
| Matrix Aqueous                  | Received Date: 10/15/2018 |
| Client SampleID: PC-1-10 2018 U | Collect Date: 10/15/2018  |

| Analysis     | TestGroup    | Dilution: | Result | Units:     | RL    | Prep Date: | Analysis Date: |
|--------------|--------------|-----------|--------|------------|-------|------------|----------------|
| Alkalinity   | ALKALIN-MUR  | 1         | 450    | mg CaCO3/l | 10    | 10/18/18   | 10/18/18       |
| pH Endpoint  | ALKALIN-MUR  | 1         | 4.5    | pH         |       | 10/18/18   | 10/18/18       |
| Alkalinity   | ALK-BICARB   | 1         | 450    | mg CaCO3/L | 10    | 10/18/18   | 10/18/18       |
| Chloride     | CHLORIDE-ICW | 10        | 230    | mg/L       | 20    | 10/22/18   | 10/22/18       |
| Cyanide      | CN-WATER-MUR | 1         | ND     | mg/L       | 0.020 | 10/17/18   | 10/17/18       |
| Nitrite      | NO2-ICW      | 1         | ND     | mg/L       | 1.0   | 10/15/18   | 10/15/18       |
| Nitrate      | NO3-ICW      | 1         | ND     | mg/L       | 1.0   | 10/15/18   | 10/15/18       |
| p-Alkalinity | P-ALKALINITY | 1         | ND     | mg CaCO3/l | 10    | 10/18/18   | 10/18/18       |
| Sulfate      | SO4-ICW      | 1         | 8.1    | mg/L       | 2.0   | 10/15/18   | 10/15/18       |

|                                   |                           |
|-----------------------------------|---------------------------|
| Lab#: AD07118-005                 | Project Number: 8101509   |
| Matrix Aqueous                    | Received Date: 10/15/2018 |
| Client SampleID: GW-DUP1-102018 U | Collect Date: 10/15/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL    | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|-------|------------|----------------|
| Chloride | CHLORIDE-ICW | 10        | 220    | mg/L   | 20    | 10/22/18   | 10/22/18       |
| Cyanide  | CN-WATER-MUR | 1         | ND     | mg/L   | 0.020 | 10/17/18   | 10/17/18       |

|                                 |                           |
|---------------------------------|---------------------------|
| Lab#: AD07118-007               | Project Number: 8101509   |
| Matrix Aqueous                  | Received Date: 10/15/2018 |
| Client SampleID: MW-11-102018 U | Collect Date: 10/15/2018  |

| Analysis     | TestGroup    | Dilution: | Result | Units:     | RL  | Prep Date: | Analysis Date: |
|--------------|--------------|-----------|--------|------------|-----|------------|----------------|
| Alkalinity   | ALKALIN-MUR  | 1         | 270    | mg CaCO3/l | 10  | 10/18/18   | 10/18/18       |
| pH Endpoint  | ALKALIN-MUR  | 1         | 4.5    | pH         |     | 10/18/18   | 10/18/18       |
| Alkalinity   | ALK-BICARB   | 1         | 270    | mg CaCO3/L | 10  | 10/18/18   | 10/18/18       |
| Nitrite      | NO2-ICW      | 1         | ND     | mg/L       | 1.0 | 10/15/18   | 10/15/18       |
| Nitrate      | NO3-ICW      | 1         | ND     | mg/L       | 1.0 | 10/15/18   | 10/15/18       |
| p-Alkalinity | P-ALKALINITY | 1         | ND     | mg CaCO3/l | 10  | 10/18/18   | 10/18/18       |
| Sulfate      | SO4-ICW      | 1         | 7.5    | mg/L       | 2.0 | 10/15/18   | 10/15/18       |

|                                 |                           |
|---------------------------------|---------------------------|
| Lab#: AD07137-001               | Project Number: 8101509   |
| Matrix Aqueous                  | Received Date: 10/16/2018 |
| Client SampleID: LMW-4-102018 U | Collect Date: 10/16/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL    | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|-------|------------|----------------|
| Chloride | CHLORIDE-ICW | 1         | 32     | mg/L   | 2.0   | 10/26/18   | 10/26/18       |
| Cyanide  | CN-WATER-MUR | 1         | ND     | mg/L   | 0.020 | 10/17/18   | 10/17/18       |

|                                |                           |
|--------------------------------|---------------------------|
| Lab#: AD07137-003              | Project Number: 8101509   |
| Matrix Aqueous                 | Received Date: 10/16/2018 |
| Client SampleID: PC-2-102018 U | Collect Date: 10/16/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL    | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|-------|------------|----------------|
| Chloride | CHLORIDE-ICW | 1         | 21     | mg/L   | 2.0   | 10/26/18   | 10/26/18       |
| Cyanide  | CN-WATER-MUR | 1         | ND     | mg/L   | 0.020 | 10/17/18   | 10/17/18       |

## VERITECH Wet Chem Form1 Analysis Summary

|                                 |              |           |        |                           |       |            |                |
|---------------------------------|--------------|-----------|--------|---------------------------|-------|------------|----------------|
| Lab#: AD07137-005               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Aqueous                  |              |           |        | Received Date: 10/16/2018 |       |            |                |
| Client SampleID: PC-3-102018 U  |              |           |        | Collect Date: 10/16/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICW | 10        | 230    | mg/L                      | 20    | 10/26/18   | 10/26/18       |
| Cyanide                         | CN-WATER-MUR | 1         | ND     | mg/L                      | 0.020 | 10/17/18   | 10/17/18       |
| Lab#: AD07161-001               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Aqueous                  |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SW-1-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICW | 1         | 5.5    | mg/L                      | 2.0   | 10/26/18   | 10/26/18       |
| Cyanide                         | CN-W-9012    | 1         | ND     | mg/L                      | 0.020 | 10/22/18   | 10/23/18       |
| Lab#: AD07161-002               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Sediment/Encore          |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SD-1-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICS | 1         | ND     | mg/Kg                     | 56    | 10/18/18   | 10/19/18       |
| Cyanide                         | CN-S-9012    | 1         | ND     | mg/Kg                     | 0.67  | 10/22/18   | 10/22/18       |
| Lab#: AD07161-003               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Aqueous                  |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SW-2-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICW | 1         | 7.8    | mg/L                      | 2.0   | 10/26/18   | 10/26/18       |
| Cyanide                         | CN-W-9012    | 1         | ND     | mg/L                      | 0.020 | 10/22/18   | 10/23/18       |
| Lab#: AD07161-004               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Sediment/Encore          |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SD-2-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICS | 1         | ND     | mg/Kg                     | 120   | 10/18/18   | 10/19/18       |
| Cyanide                         | CN-S-9012    | 1         | 1.9    | mg/Kg                     | 1.5   | 10/22/18   | 10/22/18       |
| Lab#: AD07161-005               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Aqueous                  |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SW-3-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICW | 5         | 170    | mg/L                      | 10    | 10/26/18   | 10/27/18       |
| Cyanide                         | CN-W-9012    | 1         | ND     | mg/L                      | 0.020 | 10/22/18   | 10/23/18       |
| Lab#: AD07161-006               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Sediment/Encore          |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SD-3-102018    |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICS | 1         | 200    | mg/Kg                     | 36    | 10/18/18   | 10/19/18       |
| Cyanide                         | CN-S-9012    | 1         | 1.3    | mg/Kg                     | 0.44  | 10/22/18   | 10/22/18       |
| Lab#: AD07161-007               |              |           |        | Project Number: 8101509   |       |            |                |
| Matrix Aqueous                  |              |           |        | Received Date: 10/17/2018 |       |            |                |
| Client SampleID: SW-DUP1-102018 |              |           |        | Collect Date: 10/17/2018  |       |            |                |
| Analysis                        | TestGroup    | Dilution: | Result | Units:                    | RL    | Prep Date: | Analysis Date: |
| Chloride                        | CHLORIDE-ICW | 5         | 150    | mg/L                      | 10    | 10/26/18   | 10/27/18       |
| Cyanide                         | CN-W-9012    | 1         | ND     | mg/L                      | 0.020 | 10/22/18   | 10/23/18       |

## VERITECH Wet Chem Form1 Analysis Summary

|                              |                           |
|------------------------------|---------------------------|
| Lab#: AD07161-008            | Project Number: 8101509   |
| Matrix Aqueous               | Received Date: 10/17/2018 |
| Client SampleID: SW-4-102018 | Collect Date: 10/17/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL    | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|-------|------------|----------------|
| Chloride | CHLORIDE-ICW | 1         | 41     | mg/L   | 2.0   | 10/26/18   | 10/26/18       |
| Cyanide  | CN-W-9012    | 1         | ND     | mg/L   | 0.020 | 10/22/18   | 10/23/18       |

|                              |                           |
|------------------------------|---------------------------|
| Lab#: AD07161-009            | Project Number: 8101509   |
| Matrix Sediment/Encore       | Received Date: 10/17/2018 |
| Client SampleID: SD-4-102018 | Collect Date: 10/17/2018  |

| Analysis | TestGroup    | Dilution: | Result | Units: | RL   | Prep Date: | Analysis Date: |
|----------|--------------|-----------|--------|--------|------|------------|----------------|
| Chloride | CHLORIDE-ICS | 1         | 100    | mg/Kg  | 67   | 10/18/18   | 10/19/18       |
| Cyanide  | CN-S-9012    | 1         | ND     | mg/Kg  | 0.80 | 10/22/18   | 10/22/18       |

## VERITECH Wet Chem Form1 Analysis Summary

|                              |             |           |        |                           |    |            |                |
|------------------------------|-------------|-----------|--------|---------------------------|----|------------|----------------|
| Lab#: AD07325-001            |             |           |        | Project Number: 8102513   |    |            |                |
| Matrix Aqueous               |             |           |        | Received Date: 10/24/2018 |    |            |                |
| Client SampleID: PC-1-102018 |             |           |        | Collect Date: 10/23/2018  |    |            |                |
| Analysis                     | TestGroup   | Dilution: | Result | Units:                    | RL | Prep Date: | Analysis Date: |
| Sulfide (Total)              | SULFIDE-MUR | 1         | ND     | mg/l                      | 2  | 10/29/18   | 10/29/18       |

|                               |             |           |        |                           |    |            |                |
|-------------------------------|-------------|-----------|--------|---------------------------|----|------------|----------------|
| Lab#: AD07325-002             |             |           |        | Project Number: 8102513   |    |            |                |
| Matrix Aqueous                |             |           |        | Received Date: 10/24/2018 |    |            |                |
| Client SampleID: MW-11-102018 |             |           |        | Collect Date: 10/23/2018  |    |            |                |
| Analysis                      | TestGroup   | Dilution: | Result | Units:                    | RL | Prep Date: | Analysis Date: |
| Sulfide (Total)               | SULFIDE-MUR | 1         | ND     | mg/l                      | 2  | 10/29/18   | 10/29/18       |

|                                 |             |           |        |                           |    |            |                |
|---------------------------------|-------------|-----------|--------|---------------------------|----|------------|----------------|
| Lab#: AD07325-003               |             |           |        | Project Number: 8102513   |    |            |                |
| Matrix Aqueous                  |             |           |        | Received Date: 10/24/2018 |    |            |                |
| Client SampleID: GW-DUP1-102018 |             |           |        | Collect Date: 10/23/2018  |    |            |                |
| Analysis                        | TestGroup   | Dilution: | Result | Units:                    | RL | Prep Date: | Analysis Date: |
| Sulfide (Total)                 | SULFIDE-MUR | 1         | ND     | mg/l                      | 2  | 10/29/18   | 10/29/18       |

Batch Number: TSULFIDE-W-387

Units: mg/l

## Qc Summary Results

## Calibration Curve Information

| Qc Type | Qc Name         | SpkAmt | Rec Lim | Rpd Lim | Raw Result | Recov | Rpd | Flags |
|---------|-----------------|--------|---------|---------|------------|-------|-----|-------|
| CAL-01  | CAL-01-10/29/18 | 16     | 90-110  | NA      | 16.03      | 100   | NA  |       |
| DUP     | AD07337-001     | 0      | NA      | 20      | 1.20225    | NA    | NA  | Nc    |
| LCS     | LCS             | 16     | 75-125  | NA      | 16.43075   | 103   | NA  |       |
| MS      | AD07337-001     | 16     | 75-125  | NA      | 16.43075   | 103   | NA  |       |
| MSD     | AD07337-001     | 16     | 75-125  | 20      | 16.8315    | 105   | 2.4 |       |

## Analytical Method(s)

SM4500-S2F11

| Sam #           | Type   | MB            | Result | RL | Per Sol | Full Result | Tit Vol | Iod Vol | Sam Vol (ml) | Prep Date | Prep By | Anal Date | Anal By |
|-----------------|--------|---------------|--------|----|---------|-------------|---------|---------|--------------|-----------|---------|-----------|---------|
| CAL-01-10/29/18 | CAL-01 |               | 16     |    | 100     | 16.03       | 6.0     | 10      | 100          |           |         | 10/29/18  | JMP     |
| MB-1-10/29/18   | MB     | MB-1-10/29/18 | ND     | 2  | 100     | 0.40075     | 9.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| LCS             | LCS    | MB-1-10/29/18 | 16     | 2  | 100     | 16.431      | 5.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-001     | MS     | MB-1-10/29/18 | 16     | 2  | 100     | 16.431      | 5.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-001     | MSD    | MB-1-10/29/18 | 17     | 2  | 100     | 16.831      | 5.8     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-001     | DUP    | MB-1-10/29/18 | ND     | 2  | 100     | 1.2022      | 9.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-001     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.603       | 9.6     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-002     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.8015      | 9.8     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-003     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.40075     | 9.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-004     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.2022      | 9.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-005     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.603       | 9.6     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-006     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.2022      | 9.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-007     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.40075     | 9.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-008     | Sample | MB-1-10/29/18 | 2.8    | 2  | 100     | 2.8052      | 9.3     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07337-009     | Sample | MB-1-10/29/18 | 3.2    | 2  | 100     | 3.206       | 9.2     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07310-001     | Sample | MB-1-10/29/18 | 13     | 2  | 100     | 13.225      | 6.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07310-003     | Sample | MB-1-10/29/18 | 6.0    | 2  | 100     | 6.0112      | 8.5     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07310-006     | Sample | MB-1-10/29/18 | 3.2    | 2  | 100     | 3.206       | 9.2     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07310-008     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.40075     | 9.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07325-001     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.2022      | 9.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07325-002     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.8015      | 9.8     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07325-003     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.2022      | 9.7     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07336-001     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 1.603       | 9.6     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |
| AD07336-010     | Sample | MB-1-10/29/18 | ND     | 2  | 100     | 0.40075     | 9.9     | 10      | 100          | 10/29/18  | JMP     | 10/29/18  | JMP     |

JMP  
10/29/18JW  
11/3/18

Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL)

Rp - RPD failed specified criteria

Na - Not Applicable

Nc - Not Checked either one or both values =ND

Batch Number: ALKAL-M-572

Units: mg CaCO3/l

## Qc Summary Results

## Calibration Curve Information

| Qc Type | Qc Name     | SpkAmt | Rec Lim | Rpd Lim | Raw Result | Recov | Rpd | Flags |
|---------|-------------|--------|---------|---------|------------|-------|-----|-------|
| DUP     | AD07118-003 | 0      | NA      | 20      | 445        | NA    | 1.1 |       |
| LCS     | LCS         | 100    | 75-125  | NA      | 100        | 100   | NA  |       |
| LCSD    | LCSD        | 100    | 75-125  | 20      | 101        | 101   | 1   |       |

## Analytical Method(s)

SM2320B-11

| Sam #         | Type   | MB            | Result | RL | Per Sol | Full ml Result | h2so4 h2so4 | h2so4 (N) | Sam Vol (ml) | 2nd Endpoi | Prep Date | Prep By | Anal Date | Anal By |
|---------------|--------|---------------|--------|----|---------|----------------|-------------|-----------|--------------|------------|-----------|---------|-----------|---------|
| MB-1-10/18/18 | MB     | MB-1-10/18/18 | ND     | 5  | 100     | 1              | 0.15        | 0.02      | 100          | 0.20       | 10/18/18  | BCT     | 10/18/18  | BCT     |
| LCS           | LCS    | MB-1-10/18/18 | 100    | 10 | 100     | 100            | 5.00        | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |
| LCSD          | LCSD   | MB-1-10/18/18 | 100    | 10 | 100     | 101            | 5.05        | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |
| AD07118-003   | DUP    | MB-1-10/18/18 | 440    | 10 | 100     | 445            | 22.25       | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |
| AD07118-003   | Sample | MB-1-10/18/18 | 450    | 10 | 100     | 450            | 22.50       | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |
| AD07118-007   | Sample | MB-1-10/18/18 | 270    | 10 | 100     | 270            | 13.50       | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |
| AD06468-011   | Sample | MB-1-10/18/18 | 80     | 10 | 100     | 80             | 4.00        | 0.02      | 50           |            | 10/18/18  | BCT     | 10/18/18  | BCT     |

BM  
10/19/18SW  
10/21/18Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL)  
Na - Not Applicable

Rp - RPD failed specified criteria.

Nc - Not Checked ..either one or both values =ND

Batch Number: ALKAL-P-82

Units: mg CaCO3/l

## Qc Summary Results

## Calibration Curve Information

| Qc Type | Qc Name     | SpkAmt | Rec<br>Lim | Rpd<br>Lim | Raw<br>Result | Recov | Rpd | Flags |
|---------|-------------|--------|------------|------------|---------------|-------|-----|-------|
| DUP     | AD07118-003 | 0      | NA         | 20         | 0             | NA    | NA  | Nc    |
| LCS     | LCS         | 100    | 75-125     | NA         | 88            | 88    | NA  |       |
| LCSD    | LCSD        | 100    | 75-125     | 20         | 89            | 89    | 1 1 |       |

## Analytical Method(s)

NOTAV

| Sam #         | Type   | MB            | Result | RL | Per<br>Sol | Full ml<br>Result | h2so4<br>(N) | Sam<br>Vol (ml) | Prep<br>Date | Prep<br>By | Anal<br>Date | Anal<br>By |
|---------------|--------|---------------|--------|----|------------|-------------------|--------------|-----------------|--------------|------------|--------------|------------|
| MB-1-10/18/18 | MB     | MB-1-10/18/18 | ND     | 5  | 100        | 0                 | 0.0          | 100             | 10/18/18     | BCT        | 10/18/18     | BCT        |
| LCS           | LCS    | MB-1-10/18/18 | 88     | 10 | 100        | 88                | 4.40         | 50              | 10/18/18     | BCT        | 10/18/18     | BCT        |
| LCSD          | LCSD   | MB-1-10/18/18 | 89     | 10 | 100        | 89                | 4.45         | 50              | 10/18/18     | BCT        | 10/18/18     | BCT        |
| AD07118-003   | DUP    | MB-1-10/18/18 | ND     | 10 | 100        | 0                 | 0.0          | 50              | 10/18/18     | BCT        | 10/18/18     | BCT        |
| AD07118-003   | Sample | MB-1-10/18/18 | ND     | 10 | 100        | 0                 | 0.0          | 50              | 10/18/18     | BCT        | 10/18/18     | BCT        |
| AD07118-007   | Sample | MB-1-10/18/18 | ND     | 10 | 100        | 0                 | 0.0          | 50              | 10/18/18     | BCT        | 10/18/18     | BCT        |

B7  
10/19/18OW  
10/21/18



## Carbonate / Bicarbonate

| Analysis              |                         | Carbonate / Bicarbonate |                                                            | Q.C. DATA                                                  |                 |                       | Limits | Flags |
|-----------------------|-------------------------|-------------------------|------------------------------------------------------------|------------------------------------------------------------|-----------------|-----------------------|--------|-------|
| Batch#                | 77                      |                         |                                                            | LCS RPD                                                    |                 |                       |        |       |
| Date                  | 10/18/2018              |                         |                                                            | LCS                                                        | 100             | RPD                   |        |       |
| Analyst               | BCT                     |                         |                                                            | LCSD                                                       | 101             | 1.0                   | 20     |       |
|                       |                         |                         |                                                            | Carbonate RPD                                              |                 |                       |        |       |
|                       |                         | Titrant Result          | Carbonate                                                  | Bicarbonate                                                | Sample          | 0                     | RPD    |       |
|                       |                         | P = 0                   | 0                                                          | M                                                          | Sample Dup      | 0                     | NA     | 20    |
|                       |                         | P < (1/2) M             | 2P                                                         | M-2P                                                       |                 |                       |        |       |
|                       |                         | P = (1/2) M             | 2P                                                         | 0                                                          |                 |                       |        |       |
|                       |                         | P > (1/2) M             | 2 (M-P)                                                    | 0                                                          |                 |                       |        |       |
|                       |                         | P = M                   | 0                                                          | 0                                                          | Bicarbonate RPD |                       |        |       |
|                       |                         |                         |                                                            |                                                            | Sample          | 450                   | RPD    |       |
|                       |                         |                         |                                                            |                                                            | Sample Dup      | 445                   | 1.12   | 20    |
| Samples #             | M-Alkalinity<br>(Total) | P-Alkalinity            | Carbonate<br>CO <sub>3</sub> -2 as mg CaCO <sub>3</sub> /L | Bicarbonate<br>HCO <sub>3</sub> as mg CaCO <sub>3</sub> /L | RL              | % Recovery<br>75-125% |        |       |
| MB                    | 1.0                     | 0.00                    | 0.00                                                       | 1.0                                                        | 5               |                       |        |       |
| LCS                   | 100                     | 88                      | 24                                                         | 0                                                          | 10              | 100                   |        |       |
| LCSD                  | 101                     | 89                      | 24                                                         | 0                                                          | 10              | 101                   |        |       |
| AD07118-003 Dup       | 445                     | 0.00                    | 0.00                                                       | 445                                                        | 10              |                       |        |       |
| QC Sample AD07118-003 | 450                     | 0.00                    | 0.00                                                       | 450                                                        | 10              |                       |        |       |
| AD07118-007           | 270                     | 0.00                    | 0.00                                                       | 270                                                        | 10              |                       |        |       |

BM  
10/19/18

GW 10/21/18

\* Recovery is outside specified QC limits

# Calibration Summary:

8101509 0247

Instrument: DA1

Analysis Meth: EPA 335.4

| Analyte | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|---------|-------------|------|---------|-------|------------|--------|
| Cyanide | 20181017135 | 9    | ICV     | 96    | 0.4        | 90-110 |
| Cyanide | 20181017135 | 21   | CCV     | 100   | 0.4        | 90-110 |
| Cyanide | 20181017135 | 27   | CCV     | 99    | 0.4        | 90-110 |
| Cyanide | 20181017135 | 29   | CCV     | 105   | 0.4        | 90-110 |
| Cyanide | 20181017135 | 32   | CCV     | 101   | 0.4        | 90-110 |

## Blank Summary

Instrument: DA1

Qc Type: Method Blank Summary      Prep Date: 10/17/18

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181017135  | 10/17/18 14:22     | MBW-1322  | 11   | Cyanide | ND   | 0.020 |

Qc Type: ICB Summary      Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181017135  | 10/17/18 14:20     | CCB       | 10   | Cyanide | ND   | 0.020 |

Qc Type: CCB Summary      Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181017135  | 10/17/18 14:48     | CCB       | 22   | Cyanide | ND   | 0.020 |
| 20181017135  | 10/17/18 14:58     | CCB       | 28   | Cyanide | ND   | 0.020 |
| 20181017135  | 10/17/18 15:15     | CCB       | 30   | Cyanide | ND   | 0.020 |
| 20181017135  | 10/17/18 15:20     | CCB       | 33   | Cyanide | ND   | 0.020 |

## LCS Recoveries

BatchRunID/RunID: 201810171359-12  
 QcBatchID: LCSW-1322  
 Date/Time: 10/17/18 14:24  
 Analytical Method: EPA 335.4  
 Matrix: Aqueous

| Analyte | EPA 335.4 |        |     |        | Soil  |       | Soil  |       | Soil  |       | Soil  |       |
|---------|-----------|--------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|
|         | Amt       | Limits | Amt | Limits | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags |
| Cyanide | 0.4       | 90-110 |     |        | 97    |       |       |       |       |       |       |       |

## MS/MSD/DUP Recovery

8101509 0250

Prep Batch: W-1322  
Method: EPA 335.4

Sample ID: AD07118-001  
Matrix: Aqueous

| Qc Type: DUP |  |        |     |      |        |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|--|--------|-----|------|--------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
|              |  | Limits |     | DUP  | Sample |     |      |             |       |                |             |       |                |
| Analyte      |  | Rpd    | Dil | Conc | Conc   | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide      |  | 20     | 1   | 0    | 0      | NA  |      | 20181017135 | 15    | 10/17/18 14:31 | 20181017135 | 14    | 10/17/18 14:29 |

| Qc Type: MS |     |        |     |        |        |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|-------------|-----|--------|-----|--------|--------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
|             |     | Limits |     | MS     | Sample |       |      |             |       |                |             |       |                |
| Analyte     | Amt | Recov  | Dil | Conc   | Conc   | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide     | 0.4 | 75-125 | 1   | 0.3799 | 0      | 95    |      | 20181017135 | 16    | 10/17/18 14:34 | 20181017135 | 14    | 10/17/18 14:29 |

| Qc Type: MSD |     |        |     |     |        |      |       |     |      |             | MS/MSD/DUP |                |             | Non Spike |                |  |
|--------------|-----|--------|-----|-----|--------|------|-------|-----|------|-------------|------------|----------------|-------------|-----------|----------------|--|
|              |     | Limits |     | MSD | Sample |      |       |     |      |             |            |                |             |           |                |  |
| Analyte      | Amt | Recov  | Rpd | Dil | Conc   | Conc | % Rec | Rpd | Flag | Batch       | RunID      | Analysis Date  | Batch       | RunID     | Analysis Date  |  |
| Cyanide      | 0.4 | 75-125 | 20  | 1   | 0.3707 | 0    | 93    | 2.5 |      | 20181017135 | 17         | 10/17/18 14:36 | 20181017135 | 14        | 10/17/18 14:29 |  |

# Calibration Summary:

8101509 0251

Instrument: DA1

Analysis Meth: EPA 9012B

| Analyte | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|---------|-------------|------|---------|-------|------------|--------|
| Cyanide | 20181022105 | 9    | ICV     | 100   | 0.4        | 85-115 |
| Cyanide | 20181022105 | 21   | CCV     | 98    | 0.4        | 85-115 |
| Cyanide | 20181022105 | 33   | CCV     | 101   | 0.4        | 85-115 |
| Cyanide | 20181022105 | 41   | CCV     | 99    | 0.4        | 85-115 |

## Blank Summary

Instrument: DA1

Qc Type: Method Blank Summary      Prep Date: 10/22/18

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181022105  | 10/22/18 11:14     | MBS-2071  | 11   | Cyanide | ND   | 0.020 |

Qc Type: ICB Summary      Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181022105  | 10/22/18 11:12     | CCB       | 10   | Cyanide | ND   | 0.020 |

Qc Type: CCB Summary      Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181022105  | 10/22/18 11:40     | CCB       | 22   | Cyanide | ND   | 0.020 |
| 20181022105  | 10/22/18 12:08     | CCB       | 34   | Cyanide | ND   | 0.020 |
| 20181022105  | 10/22/18 12:23     | CCB       | 42   | Cyanide | ND   | 0.020 |

## LCS Recoveries

BatchRunID/RunID:====> 201810221051-13  
 QcBatchID:====> LCSS-2071DUP  
 Date/Time:====> 10/22/18 11:19  
 Analytical Method:====> EPA 9012B  
 Matrix:====> Soil

| Analyte | EPA 9012B |        |     |        |       |       |       |       |       |       |       |       |       |       |
|---------|-----------|--------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|         | Amt       | Limits | Amt | Limits | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags |
| Cyanide | 0.4       | 80-120 |     |        | 92    |       |       |       |       |       |       |       |       |       |



## MS/MSD/DUP Recovery

8101509 0254

Prep Batch: S-2071  
Method: EPA 9012B

Sample ID: AD07152-001  
Matrix: Soil

## Qc Type: DUP

|         |  | Limits |     | DUP    | Sample |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|---------|--|--------|-----|--------|--------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte |  | Rpd    | Dil | Conc   | Conc   | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide |  | 35     | 1   | 0.0357 | 0.0367 | 2.8 |      | 20181022105 | 15    | 10/22/18 11:23 | 20181022105 | 14    | 10/22/18 11:21 |

## Qc Type: MS

|         |     | Limits |     | MS    | Sample |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|---------|-----|--------|-----|-------|--------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte | Amt | Recov  | Dil | Conc  | Conc   | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide | 0.4 | 75-125 | 1   | 0.414 | 0.0367 | 94    |      | 20181022105 | 16    | 10/22/18 11:26 | 20181022105 | 14    | 10/22/18 11:21 |

## Qc Type: MSD

| QC Type: MSD |     | Limits |     |     | MSD    | Sample |       |     |      | MS/MSD/DUP  |       |                |             | Non Spike |                |  |
|--------------|-----|--------|-----|-----|--------|--------|-------|-----|------|-------------|-------|----------------|-------------|-----------|----------------|--|
| Analyte      | Amt | Recov  | Rpd | Dil | Conc   | Conc   | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID     | Analysis Date  |  |
| Cyanide      | 0.4 | 75-125 | 20  | 1   | 0.4131 | 0.0367 | 94    | 0.2 |      | 20181022105 | 17    | 10/22/18 11:28 | 20181022105 | 14        | 10/22/18 11:21 |  |

# Calibration Summary:

8101509 0255

Instrument: DA1

Analysis Meth: EPA 9012B

| Analyte | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|---------|-------------|------|---------|-------|------------|--------|
| Cyanide | 20181023074 | 9    | ICV     | 100   | 0.4        | 85-115 |
| Cyanide | 20181023074 | 21   | CCV     | 97    | 0.4        | 85-115 |
| Cyanide | 20181023074 | 26   | CCV     | 103   | 0.4        | 85-115 |

## Blank Summary

Instrument: DA1

## Qc Type: Method Blank Summary

Prep Date: 10/22/18

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181023074  | 10/23/18 08:07     | MBW-1323  | 11   | Cyanide | ND   | 0.020 |

## Qc Type: ICB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181023074  | 10/23/18 08:05     | CCB       | 10   | Cyanide | ND   | 0.020 |

## Qc Type: CCB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte | Conc | RL    |
|--------------|--------------------|-----------|------|---------|------|-------|
| 20181023074  | 10/23/18 08:32     | CCB       | 22   | Cyanide | ND   | 0.020 |
| 20181023074  | 10/23/18 08:41     | CCB       | 27   | Cyanide | ND   | 0.020 |

## LCS Recoveries

BatchRunID/RunID:====> 201810230744-12  
 QcBatchID:====> LCSW-1323  
 Date/Time:====> 10/23/18 08:09  
 Analytical Method:====> EPA 9012B  
 Matrix:====> Aqueous

| EPA 9012B |     |        |     |        |       |       |       |       |       |       |       |       |       |       |
|-----------|-----|--------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Analyte   | Amt | Limits | Amt | Limits | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags |
| Cyanide   | 0.4 | 80-120 |     |        | 92    |       |       |       |       |       |       |       |       |       |

## MS/MSD/DUP Recovery

8101509 0258

Prep Batch: W-1323

Sample ID: AD07161-001

Method: EPA 9012B

Matrix: Aqueous

## Qc Type: DUP

| Limits  |     |     |      | DUP         |     |      |  | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|---------|-----|-----|------|-------------|-----|------|--|-------------|-------|----------------|-------------|-------|----------------|
| Analyte | Rpd | Dil | Conc | Sample Conc | Rpd | Flag |  | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide | 35  | 1   | 0    | 0           | NA  |      |  | 20181023074 | 15    | 10/23/18 08:16 | 20181023074 | 14    | 10/23/18 08:14 |

## Qc Type: MS

| Limits  |     |        |     | MS     |             |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|---------|-----|--------|-----|--------|-------------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte | Amt | Recov  | Dil | Conc   | Sample Conc | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Cyanide | 0.4 | 75-125 | 1   | 0.3745 | 0           | 94    |      | 20181023074 | 16    | 10/23/18 08:19 | 20181023074 | 14    | 10/23/18 08:14 |

## Qc Type: MSD

| Limits  |     |        |     |     | MSD    | Sample |   |     |     |      | MS/MSD/DUP  |       |                |             | Non Spike |                |  |
|---------|-----|--------|-----|-----|--------|--------|---|-----|-----|------|-------------|-------|----------------|-------------|-----------|----------------|--|
| Analyte | Amt | Recov  | Rpd | Dil | Conc   | Conc   | % | Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID     | Analysis Date  |  |
| Cyanide | 0.4 | 75-125 | 20  | 1   | 0.3557 | 0      |   | 89  | 5.1 |      | 20181023074 | 17    | 10/23/18 08:21 | 20181023074 | 14        | 10/23/18 08:14 |  |

## LCS Recoveries

**BatchRunID/RunID:**====> 201809251047-292  
**QcBatchID:**====> LCSW-2247  
**Date/Time:**====> 10/15/18 17:37  
**Analytical Method:**====> 300.0 rev2.1  
**Matrix:**====> Aqueous

201810171053-122  
 LCSW-2251  
 10/22/18 10:55  
 300.0 rev2.1  
 Aqueous

Soil

Soil

Soil

300.0 rev2.

| Analyte  | Amt | Limits | Amt | Limits | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags |
|----------|-----|--------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Chloride | 5   | 90-110 |     |        | 110   |       | 108   |       |       |       |       |       |       |       |
| Nitrate  | 5   | 90-110 |     |        | 102   |       | 100   |       |       |       |       |       |       |       |
| Nitrite  | 5   | 90-110 |     |        | 100   |       | 99    |       |       |       |       |       |       |       |
| Sulfate  | 5   | 90-110 |     |        | 99    |       | 99    |       |       |       |       |       |       |       |

## MS/MSD/DUP Recovery

8101509 0260

Prep Batch: W-2247

Sample ID: AD07114-001

Method: 300.0 rev2.1

Matrix: Aqueous

| Qc Type: MS |     |        |     |         |         |        |      |             | MS/MSD/DUP |                |             | Non Spike |                |  |
|-------------|-----|--------|-----|---------|---------|--------|------|-------------|------------|----------------|-------------|-----------|----------------|--|
|             |     | Limits |     | MS      |         | Sample |      |             |            |                |             |           |                |  |
| Analyte     | Amt | Recov  | Dil | Conc    | Conc    | % Rec  | Flag | Batch       | RunID      | Analysis Date  | Batch       | RunID     | Analysis Date  |  |
| Chloride    | 5   | 80-120 | 1   | 34.7853 | 29.5744 | 104    |      | 20180925104 | 294        | 10/15/18 18:32 | 20180925104 | 293       | 10/15/18 18:04 |  |
| Nitrate     | 5   | 80-120 | 1   | 7.7665  | 3.1749  | 92     |      | 20180925104 | 294        | 10/15/18 18:32 | 20180925104 | 293       | 10/15/18 18:04 |  |
| Nitrite     | 5   | 80-120 | 1   | 5.2633  | 0       | 105    |      | 20180925104 | 294        | 10/15/18 18:32 | 20180925104 | 293       | 10/15/18 18:04 |  |
| Sulfate     | 5   | 80-120 | 1   | 17.1144 | 11.6183 | 110    |      | 20180925104 | 294        | 10/15/18 18:32 | 20180925104 | 293       | 10/15/18 18:04 |  |

| Qc Type: MSD |     |        |     |     |         |         |       |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|-----|--------|-----|-----|---------|---------|-------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
|              |     | Limits |     |     | MSD     | Sample  |       |     |      |             |       |                |             |       |                |
| Analyte      | Amt | Recov  | Rpd | Dil | Conc    | Conc    | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride     | 5   | 80-120 | 20  | 1   | 34.7194 | 29.5744 | 103   | 0.2 |      | 20180925104 | 295   | 10/15/18 18:59 | 20180925104 | 293   | 10/15/18 18:04 |
| Nitrate      | 5   | 80-120 | 20  | 1   | 7.7901  | 3.1749  | 92    | 0.3 |      | 20180925104 | 295   | 10/15/18 18:59 | 20180925104 | 293   | 10/15/18 18:04 |
| Nitrite      | 5   | 80-120 | 20  | 1   | 5.3082  | 0       | 106   | 0.8 |      | 20180925104 | 295   | 10/15/18 18:59 | 20180925104 | 293   | 10/15/18 18:04 |
| Sulfate      | 5   | 80-120 | 20  | 1   | 17.2058 | 11.6183 | 112   | 0.5 |      | 20180925104 | 295   | 10/15/18 18:59 | 20180925104 | 293   | 10/15/18 18:04 |

Prep Batch: W-2251

Sample ID: AD07118-001

Method: 300.0 rev2.1

Matrix: Aqueous

| Qc Type: MS |     |        |     |         |         |       |      |             | MS/MSD/DUP |                |             | Non Spike |                |  |
|-------------|-----|--------|-----|---------|---------|-------|------|-------------|------------|----------------|-------------|-----------|----------------|--|
|             |     | Limits |     | MS      | Sample  |       |      |             |            |                |             |           |                |  |
| Analyte     | Amt | Recov  | Dil | Conc    | Conc    | % Rec | Flag | Batch       | RunID      | Analysis Date  | Batch       | RunID     | Analysis Date  |  |
| Chloride    | 5   | 80-120 | 1   | 19.3009 | 14.7503 | 91    |      | 20181017105 | 129        | 10/22/18 14:19 | 20181017105 | 128       | 10/22/18 13:51 |  |
| Nitrate     | 5   | 80-120 | 1   | 5.4361  | 1.2023  | 85    |      | 20181017105 | 129        | 10/22/18 14:19 | 20181017105 | 128       | 10/22/18 13:51 |  |
| Nitrite     | 5   | 80-120 | 1   | 4.9221  | 0       | 98    |      | 20181017105 | 129        | 10/22/18 14:19 | 20181017105 | 128       | 10/22/18 13:51 |  |
| Sulfate     | 5   | 80-120 | 1   | 36.9571 | 30.8063 | 123   | Mw   | 20181017105 | 129        | 10/22/18 14:19 | 20181017105 | 128       | 10/22/18 13:51 |  |

| Qc Type: MSD |     |        |     |     |         |         |       |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|-----|--------|-----|-----|---------|---------|-------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
|              |     | Limits |     |     | MSD     | Sample  |       |     |      |             |       |                |             |       |                |
| Analyte      | Amt | Recov  | Rpd | Dil | Conc    | Conc    | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride     | 5   | 80-120 | 20  | 1   | 19.2305 | 14.7503 | 90    | 0.4 |      | 20181017105 | 130   | 10/22/18 14:46 | 20181017105 | 128   | 10/22/18 13:51 |
| Nitrate      | 5   | 80-120 | 20  | 1   | 5.4063  | 1.2023  | 84    | 0.5 |      | 20181017105 | 130   | 10/22/18 14:46 | 20181017105 | 128   | 10/22/18 13:51 |
| Nitrite      | 5   | 80-120 | 20  | 1   | 4.9163  | 0       | 98    | 0.1 |      | 20181017105 | 130   | 10/22/18 14:46 | 20181017105 | 128   | 10/22/18 13:51 |
| Sulfate      | 5   | 80-120 | 20  | 1   | 36.452  | 30.8063 | 113   | 1.4 |      | 20181017105 | 130   | 10/22/18 14:46 | 20181017105 | 128   | 10/22/18 13:51 |

# Calibration Curve

Instrument: IC1

Analysis Date: 09/25/18

Analytical Methods: 300.0 rev2.1;EPA 9056;EPA 9056A

| Batch ID:    | Analyte: | Area Found |       |       |       |        |        | Concentration Amount |       |       |       |       |       | rSq    |
|--------------|----------|------------|-------|-------|-------|--------|--------|----------------------|-------|-------|-------|-------|-------|--------|
|              |          | Area1      | Area2 | Area3 | Area4 | Area5  | Area6  | Conc1                | Conc2 | Conc3 | Conc4 | Conc5 | Conc6 |        |
| 201809251047 | Chloride | 0          | 0.209 | 1.056 | 2.136 | 4.59   | 12.55  | 0                    | 1     | 5     | 10    | 20    | 50    | 99.866 |
| 201809251047 | Nitrate  | 0          | 0.504 | 2.532 | 5.345 | 11.899 |        | 0                    | 1     | 5     | 10    | 20    | 50    | 99.692 |
| 201809251047 | Nitrite  | 0          | 0.419 | 2.205 | 4.537 | 9.503  |        | 0                    | 1     | 5     | 10    | 20    | 50    | 99.945 |
| 201809251047 | Sulfate  | 0          | 0.22  | 0.822 | 1.604 | 3.355  | 8.198  | 0                    | 1     | 5     | 10    | 20    | 50    | 99.981 |
| 201810171053 | Chloride | 0          | 0.205 | 1.137 | 2.317 | 4.855  | 13.494 | 0                    | 1     | 5     | 10    | 20    | 50    | 99.84  |
| 201810171053 | Nitrate  | 0          | 0.518 | 2.698 | 5.76  | 12.614 |        | 0                    | 1     | 5     | 10    | 20    | 50    | 99.778 |
| 201810171053 | Nitrite  | 0          | 0.44  | 2.311 | 4.776 | 9.853  |        | 0                    | 1     | 5     | 10    | 20    | 50    | 99.974 |
| 201810171053 | Sulfate  | 0          | 0.203 | 0.902 | 1.733 | 3.432  | 8.751  | 0                    | 1     | 5     | 10    | 20    | 50    | 99.988 |

8101509 0261



# Calibration Summary:

8101509 0262

Instrument: IC1

Analysis Meth: 300.0 rev2.1

| Analyte  | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|----------|-------------|------|---------|-------|------------|--------|
| Chloride | 20180925104 | 7    | ICV     | 105   | 10         | 90-110 |
| Chloride | 20180925104 | 289  | CCV     | 101   | 10         | 90-110 |
| Chloride | 20180925104 | 300  | CCV     | 102   | 10         | 90-110 |
| Chloride | 20181017105 | 7    | ICV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 119  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 131  | CCV     | 97    | 10         | 90-110 |
| Chloride | 20181017105 | 143  | CCV     | 96    | 10         | 90-110 |
| Nitrate  | 20180925104 | 7    | ICV     | 105   | 10         | 90-110 |
| Nitrate  | 20180925104 | 289  | CCV     | 101   | 10         | 90-110 |
| Nitrate  | 20180925104 | 300  | CCV     | 103   | 10         | 90-110 |
| Nitrate  | 20181017105 | 7    | ICV     | 98    | 10         | 90-110 |
| Nitrate  | 20181017105 | 119  | CCV     | 96    | 10         | 90-110 |
| Nitrate  | 20181017105 | 131  | CCV     | 97    | 10         | 90-110 |
| Nitrate  | 20181017105 | 143  | CCV     | 96    | 10         | 90-110 |
| Nitrite  | 20180925104 | 7    | ICV     | 99    | 10         | 90-110 |
| Nitrite  | 20180925104 | 289  | CCV     | 103   | 10         | 90-110 |
| Nitrite  | 20180925104 | 300  | CCV     | 104   | 10         | 90-110 |
| Nitrite  | 20181017105 | 7    | ICV     | 101   | 10         | 90-110 |
| Nitrite  | 20181017105 | 119  | CCV     | 99    | 10         | 90-110 |
| Nitrite  | 20181017105 | 131  | CCV     | 100   | 10         | 90-110 |
| Nitrite  | 20181017105 | 143  | CCV     | 99    | 10         | 90-110 |
| Sulfate  | 20180925104 | 7    | ICV     | 106   | 10         | 90-110 |
| Sulfate  | 20180925104 | 289  | CCV     | 101   | 10         | 90-110 |
| Sulfate  | 20180925104 | 300  | CCV     | 105   | 10         | 90-110 |
| Sulfate  | 20181017105 | 7    | ICV     | 100   | 10         | 90-110 |
| Sulfate  | 20181017105 | 119  | CCV     | 95    | 10         | 90-110 |
| Sulfate  | 20181017105 | 131  | CCV     | 104   | 10         | 90-110 |
| Sulfate  | 20181017105 | 143  | CCV     | 92    | 10         | 90-110 |

## Blank Summary

Instrument: IC1

## Qc Type: Method Blank Summary

Prep Date: 10/15/18

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20180925104  | 10/15/18 16:43     | MBW-2247  | 291  | Chloride | ND   | 2.0 |
| 20180925104  | 10/15/18 16:43     | MBW-2247  | 291  | Nitrate  | ND   | 1.0 |
| 20180925104  | 10/15/18 16:43     | MBW-2247  | 291  | Nitrite  | ND   | 1.0 |
| 20180925104  | 10/15/18 16:43     | MBW-2247  | 291  | Sulfate  | ND   | 2.0 |
| 20181017105  | 10/22/18 10:28     | MBW-2251  | 121  | Chloride | ND   | 2.0 |
| 20181017105  | 10/22/18 10:28     | MBW-2251  | 121  | Nitrate  | ND   | 1.0 |
| 20181017105  | 10/22/18 10:28     | MBW-2251  | 121  | Nitrite  | ND   | 1.0 |
| 20181017105  | 10/22/18 10:28     | MBW-2251  | 121  | Sulfate  | ND   | 2.0 |

## Qc Type: ICB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20180925104  | 9/25/18 16:38      | ICB       | 8    | Chloride | ND   | 2.0 |
| 20180925104  | 9/25/18 16:38      | ICB       | 8    | Nitrate  | ND   | 1.0 |
| 20180925104  | 9/25/18 16:38      | ICB       | 8    | Nitrite  | ND   | 1.0 |
| 20180925104  | 9/25/18 16:38      | ICB       | 8    | Sulfate  | ND   | 2.0 |
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Chloride | ND   | 2.0 |
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Nitrate  | ND   | 1.0 |
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Nitrite  | ND   | 1.0 |
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Sulfate  | ND   | 2.0 |

## Qc Type: CCB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20180925104  | 10/15/18 16:16     | CCB       | 290  | Chloride | ND   | 2.0 |
| 20180925104  | 10/15/18 21:42     | CCB       | 301  | Chloride | ND   | 2.0 |
| 20180925104  | 10/15/18 16:16     | CCB       | 290  | Nitrate  | ND   | 1.0 |
| 20180925104  | 10/15/18 21:42     | CCB       | 301  | Nitrate  | ND   | 1.0 |
| 20180925104  | 10/15/18 16:16     | CCB       | 290  | Nitrite  | ND   | 1.0 |
| 20180925104  | 10/15/18 21:42     | CCB       | 301  | Nitrite  | ND   | 1.0 |
| 20180925104  | 10/15/18 16:16     | CCB       | 290  | Sulfate  | ND   | 2.0 |
| 20180925104  | 10/15/18 21:42     | CCB       | 301  | Sulfate  | ND   | 2.0 |
| 20181017105  | 10/22/18 10:01     | CCB       | 120  | Chloride | ND   | 2.0 |
| 20181017105  | 10/22/18 15:40     | CCB       | 132  | Chloride | ND   | 2.0 |
| 20181017105  | 10/22/18 21:08     | CCB       | 144  | Chloride | ND   | 2.0 |
| 20181017105  | 10/22/18 10:01     | CCB       | 120  | Nitrate  | ND   | 1.0 |
| 20181017105  | 10/22/18 15:40     | CCB       | 132  | Nitrate  | ND   | 1.0 |
| 20181017105  | 10/22/18 21:08     | CCB       | 144  | Nitrate  | ND   | 1.0 |
| 20181017105  | 10/22/18 10:01     | CCB       | 120  | Nitrite  | ND   | 1.0 |
| 20181017105  | 10/22/18 15:40     | CCB       | 132  | Nitrite  | ND   | 1.0 |
| 20181017105  | 10/22/18 21:08     | CCB       | 144  | Nitrite  | ND   | 1.0 |
| 20181017105  | 10/22/18 10:01     | CCB       | 120  | Sulfate  | ND   | 2.0 |
| 20181017105  | 10/22/18 15:40     | CCB       | 132  | Sulfate  | ND   | 2.0 |
| 20181017105  | 10/22/18 21:08     | CCB       | 144  | Sulfate  | ND   | 2.0 |

Calibration Curve

Instrument: IC1

Analysis Date: 10/17/18

Analytical Methods: 300.0 rev2.1; EPA 9056; EPA 9056A

| Batch ID:    | Analyte: | Area Found |       |       |       |       |        | Concentration Amount |       |       |       |       |       | rSq   |
|--------------|----------|------------|-------|-------|-------|-------|--------|----------------------|-------|-------|-------|-------|-------|-------|
|              |          | Area1      | Area2 | Area3 | Area4 | Area5 | Area6  | Conc1                | Conc2 | Conc3 | Conc4 | Conc5 | Conc6 |       |
| 201810171053 | Chloride | 0          | 0.205 | 1.137 | 2.317 | 4.855 | 13.494 | 0                    | 1     | 5     | 10    | 20    | 50    | 99.84 |

# Calibration Summary:

8101509 0265

Instrument: IC1

Analysis Meth: 300.0 rev2.1

| Analyte  | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|----------|-------------|------|---------|-------|------------|--------|
| Chloride | 20181017105 | 7    | ICV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 247  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 259  | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 271  | CCV     | 95    | 10         | 90-110 |

# Blank Summary

Instrument: IC1

**Qc Type: Method Blank Summary****Prep Date: 10/26/18**

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/26/18 08:55     | MBW-2255  | 249  | Chloride | ND   | 2.0 |

**Qc Type: ICB Summary****Prep Date: NA**

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Chloride | ND   | 2.0 |

**Qc Type: CCB Summary****Prep Date: NA**

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/26/18 08:28     | CCB       | 248  | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 14:34     | CCB       | 260  | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 20:02     | CCB       | 272  | Chloride | ND   | 2.0 |

## LCS Recoveries

**BatchRunID/RunID:**====> 201810171053-250  
**QcBatchID:**====> LCSW-2255  
**Date/Time:**====> 10/26/18 09:23  
**Analytical Method:**====> 300.0 rev2.1  
**Matrix:**====> Aqueous

| Analyte  | 300.0 rev2. |        |     |        |       |       |       |       |       |       |       |       |       |       |       |       |
|----------|-------------|--------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|          | Amt         | Limits | Amt | Limits | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags | % Rec | Flags |
| Chloride | 5           | 90-110 |     |        | 106   |       |       |       |       |       |       |       |       |       |       |       |

## MS/MSD/DUP Recovery

8101509 0268

Prep Batch: W-2255

Sample ID: AD07161-001

Method: 300.0 rev2.1

Matrix: Aqueous

| Qc Type: MS |     |        |     |        |        |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|-------------|-----|--------|-----|--------|--------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
|             |     | Limits |     | MS     | Sample |       |      |             |       |                |             |       |                |
| Analyte     | Amt | Recov  | Dil | Conc   | Conc   | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride    | 5   | 80-120 | 1   | 9.4753 | 5.477  | 80    |      | 20181017105 | 265   | 10/26/18 16:52 | 20181017105 | 264   | 10/26/18 16:25 |

| Qc Type: MSD |     |        |     |     |        |        |       |     |      | MS/MSD/DUP  |     |                | Non Spike     |             |       |                |
|--------------|-----|--------|-----|-----|--------|--------|-------|-----|------|-------------|-----|----------------|---------------|-------------|-------|----------------|
|              |     | Limits |     |     | MSD    | Sample |       |     |      | Batch       |     | RunID          | Analysis Date | Batch       | RunID | Analysis Date  |
| Analyte      | Amt | Recov  | Rpd | Dil | Conc   | Conc   | % Rec | Rpd | Flag |             |     |                |               |             |       |                |
| Chloride     | 5   | 80-120 | 20  | 1   | 9.4988 | 5.477  | 80    | 0.2 |      | 20181017105 | 266 | 10/26/18 17:19 |               | 20181017105 | 264   | 10/26/18 16:25 |

# Calibration Curve

Instrument: IC1

Analysis Date: 10/17/18

Analytical Methods: 300.0 rev2.1; EPA 9056; EPA 9056A

| Batch ID:    | Analyte: | Area Found |       |       |       |       |        | Concentration Amount |       |       |       |       |       | rSq   |
|--------------|----------|------------|-------|-------|-------|-------|--------|----------------------|-------|-------|-------|-------|-------|-------|
|              |          | Area1      | Area2 | Area3 | Area4 | Area5 | Area6  | Conc1                | Conc2 | Conc3 | Conc4 | Conc5 | Conc6 |       |
| 201810171053 | Chloride | 0          | 0.205 | 1.137 | 2.317 | 4.855 | 13.494 | 0                    | 1     | 5     | 10    | 20    | 50    | 99.84 |



# Calibration Summary:

8101509 0270

Instrument: IC1

Analysis Meth: 300.0 rev2.1

| Analyte  | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|----------|-------------|------|---------|-------|------------|--------|
| Chloride | 20181017105 | 7    | ICV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 62   | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 74   | CCV     | 94    | 10         | 90-110 |
| Chloride | 20181017105 | 85   | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 247  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 259  | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 271  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 278  | CCV     | 94    | 10         | 90-110 |
| Chloride | 20181017105 | 290  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 302  | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 308  | CCV     | 95    | 10         | 90-110 |

# Calibration Summary:

8101509 0271

Instrument: IC1

Analysis Meth: EPA 9056A

| Analyte  | Batch ID    | Run# | Qc Type | Recov | Spk<br>Amt | Limit  |
|----------|-------------|------|---------|-------|------------|--------|
| Chloride | 20181017105 | 7    | ICV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 62   | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 74   | CCV     | 94    | 10         | 90-110 |
| Chloride | 20181017105 | 85   | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 247  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 259  | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 271  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 278  | CCV     | 94    | 10         | 90-110 |
| Chloride | 20181017105 | 290  | CCV     | 95    | 10         | 90-110 |
| Chloride | 20181017105 | 302  | CCV     | 96    | 10         | 90-110 |
| Chloride | 20181017105 | 308  | CCV     | 95    | 10         | 90-110 |

## Blank Summary

Instrument: IC1

## Qc Type: Method Blank Summary

Prep Date: 10/18/18

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/18/18 23:21     | MBS-1272  | 64   | Chloride | ND   | 20  |
| 20181017105  | 10/26/18 23:40     | MBW-2256  | 280  | Chloride | ND   | 2.0 |

## Qc Type: ICB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/17/18 18:49     | ICB       | 8    | Chloride | ND   | 2.0 |

## Qc Type: CCB Summary

Prep Date: NA

| Run Batch ID | Analysis Date/Time | Sample ID | Run# | Analyte  | Conc | RL  |
|--------------|--------------------|-----------|------|----------|------|-----|
| 20181017105  | 10/18/18 22:54     | CCB       | 63   | Chloride | ND   | 2.0 |
| 20181017105  | 10/19/18 04:21     | CCB       | 75   | Chloride | ND   | 2.0 |
| 20181017105  | 10/19/18 09:20     | CCB       | 86   | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 08:28     | CCB       | 248  | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 14:34     | CCB       | 260  | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 20:02     | CCB       | 272  | Chloride | ND   | 2.0 |
| 20181017105  | 10/26/18 23:13     | CCB       | 279  | Chloride | ND   | 2.0 |
| 20181017105  | 10/27/18 04:39     | CCB       | 291  | Chloride | ND   | 2.0 |
| 20181017105  | 10/27/18 10:08     | CCB       | 303  | Chloride | ND   | 2.0 |
| 20181017105  | 10/27/18 15:29     | CCB       | 309  | Chloride | ND   | 2.0 |

## LCS Recoveries

|                                 |                   |                 |              |                  |              |                  |              |              |              |
|---------------------------------|-------------------|-----------------|--------------|------------------|--------------|------------------|--------------|--------------|--------------|
| <b>BatchRunID/RunID:</b> ====>  |                   | 201810171053-65 |              | 201810171053-250 |              | 201810171053-281 |              |              |              |
| <b>QcBatchID:</b> ====>         |                   | LCSS-1272       |              | LCSW-2255        |              | LCSW-2256        |              |              |              |
| <b>Date/Time:</b> ====>         |                   | 10/18/18 23:48  |              | 10/26/18 09:23   |              | 10/27/18 00:07   |              |              |              |
| <b>Analytical Method:</b> ====> |                   | EPA 9056A       |              | 300.0 rev2.1     |              | 300.0 rev2.1     |              |              |              |
| <b>Matrix:</b> ====>            |                   | Soil            |              | Aqueous          |              | Aqueous          |              | Soil         |              |
| 300.0 rev2. EPA 9056A           |                   |                 |              |                  |              |                  |              |              |              |
| <b>Amt Limits Amt Limits</b>    |                   |                 |              |                  |              |                  |              |              |              |
| <b>Analyte</b>                  |                   | <b>% Rec</b>    | <b>Flags</b> | <b>% Rec</b>     | <b>Flags</b> | <b>% Rec</b>     | <b>Flags</b> | <b>% Rec</b> | <b>Flags</b> |
| Chloride                        | 5 90-110 5 80-120 | 104             |              | 106              |              | 107              |              |              |              |

## MS/MSD/DUP Recovery

8101509 0274

Prep Batch: S-1272  
Method: EPA 9056A

Sample ID: AD07164-001  
Matrix: Soil

| Qc Type: MS |     |        |        |     |         |             |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|-------------|-----|--------|--------|-----|---------|-------------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte     | Amt | Recov  | Limits | Dil | MS Conc | Sample Conc | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride    | 5   | 80-120 |        | 1   | 5.286   | 0           | 106   |      | 20181017105 | 67    | 10/19/18 00:43 | 20181017105 | 66    | 10/19/18 00:16 |

| Qc Type: MSD |     |        |     |        |     |          |             |       |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|-----|--------|-----|--------|-----|----------|-------------|-------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte      | Amt | Recov  | Rpd | Limits | Dil | MSD Conc | Sample Conc | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride     | 5   | 80-120 | 20  |        | 1   | 5.3718   | 0           | 107   | 1.6 |      | 20181017105 | 68    | 10/19/18 01:10 | 20181017105 | 66    | 10/19/18 00:16 |

Prep Batch: W-2255  
Method: 300.0 rev2.1

Sample ID: AD07161-001  
Matrix: Aqueous

| Qc Type: MS |     |        |        |     |         |             |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|-------------|-----|--------|--------|-----|---------|-------------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte     | Amt | Recov  | Limits | Dil | MS Conc | Sample Conc | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride    | 5   | 80-120 |        | 1   | 9.4753  | 5.477       | 80    |      | 20181017105 | 265   | 10/26/18 16:52 | 20181017105 | 264   | 10/26/18 16:25 |

| Qc Type: MSD |     |        |     |        |     |          |             |       |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|-----|--------|-----|--------|-----|----------|-------------|-------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte      | Amt | Recov  | Rpd | Limits | Dil | MSD Conc | Sample Conc | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride     | 5   | 80-120 | 20  |        | 1   | 9.4988   | 5.477       | 80    | 0.2 |      | 20181017105 | 266   | 10/26/18 17:19 | 20181017105 | 264   | 10/26/18 16:25 |

Prep Batch: W-2256  
Method: 300.0 rev2.1

Sample ID: AD07365-001  
Matrix: Aqueous

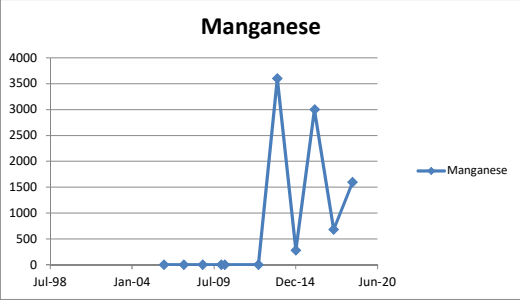
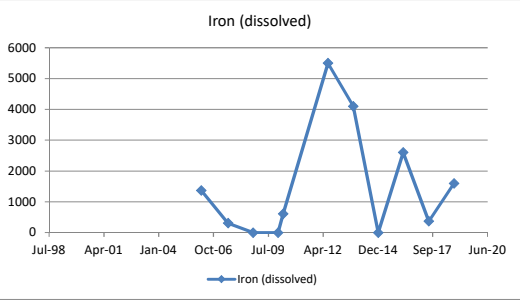
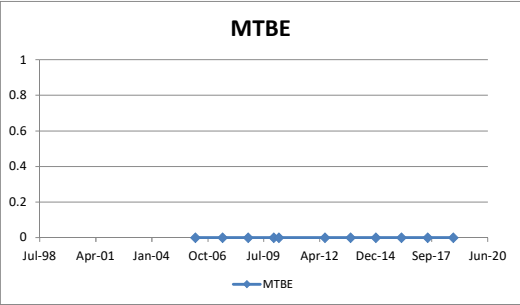
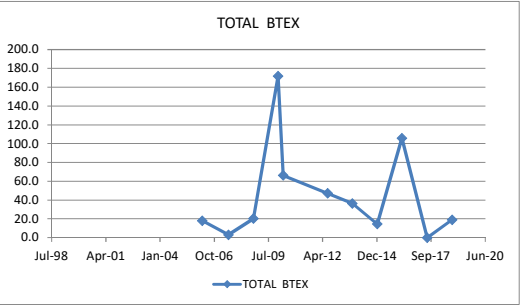
| Qc Type: MS |     |        |        |     |         |             |       |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|-------------|-----|--------|--------|-----|---------|-------------|-------|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte     | Amt | Recov  | Limits | Dil | MS Conc | Sample Conc | % Rec | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride    | 5   | 80-120 |        | 1   | 131.400 | 125.639     | 115   |      | 20181017105 | 283   | 10/27/18 01:02 | 20181017105 | 282   | 10/27/18 00:34 |

| Qc Type: MSD |     |        |     |        |     |          |             |       |     |      | MS/MSD/DUP  |       |                | Non Spike   |       |                |
|--------------|-----|--------|-----|--------|-----|----------|-------------|-------|-----|------|-------------|-------|----------------|-------------|-------|----------------|
| Analyte      | Amt | Recov  | Rpd | Limits | Dil | MSD Conc | Sample Conc | % Rec | Rpd | Flag | Batch       | RunID | Analysis Date  | Batch       | RunID | Analysis Date  |
| Chloride     | 5   | 80-120 | 20  |        | 1   | 131.368  | 125.639     | 115   | 0   |      | 20181017105 | 284   | 10/27/18 01:29 | 20181017105 | 282   | 10/27/18 00:34 |

**APPENDIX D**  
**SELECT ANALYTE DATA TRENDS**

APPENDIX D  
MONITORING WELL HISTORICAL DATA SUMMARY  
May 2000 to October 2018  
Harrison Sub-Residency Spill Site

| WELL ID: MW 11                  | BASELINE<br>(May 2000) | (Jan 2001) | (May 2001) | (Jan 2002) | (Jan 2003) | (Sept 2003) | (May 2004) | (Oct 2005)/<br>(Mar 2006) | (July 2007) | (Oct 2008) | (Jan 2010) | (Apr 2011) | (July 2012) | (Oct 2013) | (Jan 2015) | (April 2016) | (July 2017) | (Oct 2018) | NYSDEC<br>CLASS GA<br>STANDARDS¹ |
|---------------------------------|------------------------|------------|------------|------------|------------|-------------|------------|---------------------------|-------------|------------|------------|------------|-------------|------------|------------|--------------|-------------|------------|----------------------------------|
|                                 | May-00                 | Jan-01     | May-01     | Jan-02     | Jan-03     | Sep-03      | May-04     | Mar-06                    | 1-Jul       | Oct-08     | Jan-10     | Apr-10     | Jul-12      | Oct-13     | Jan-15     | Apr-16       | Jul-17      | Oct-18     |                                  |
| <b>Volatile Organics (ug/L)</b> |                        |            |            |            |            |             |            |                           |             |            |            |            |             |            |            |              |             |            |                                  |
| MTBE                            |                        |            |            |            |            |             |            | ND                        | ND          | ND         | ND         | ND         | ND          | ♦          | ND         | ND           | ND          | ND         | 10                               |
| Benzene                         |                        |            |            |            |            |             |            | ND                        | ND          | 0.88       | 0.88       | ND         | 1.9         | 2.7        | ND         | 0.82         | ND          | ND         | 1                                |
| Toluene                         |                        |            |            |            |            |             |            | 1 J                       | ND          | 1          | 2.9        | ND         | ND          | 1.2        | ND         | ND           | ND          | ND         | 5                                |
| Ethylbenzene                    |                        |            |            |            |            |             |            | 10                        | 3J          | 13         | 130        | 53         | 32          | 24         | 13         | 93           | ND          | 17         | 5                                |
| m,p-Xylene                      |                        |            |            |            |            |             |            | 7                         | ND          | 3.8        | 35         | 12         | 11          | 6.2        | 1.4        | 9.9          | ND          | 2          | 5²                               |
| O-Xylene                        |                        |            |            |            |            |             |            | ND                        | ND          | 1.6        | 3.1        | 1.2        | 2.3         | 2.4        | ND         | 2.1          | ND          | ND         | 5²                               |
| Xylenes (total)                 |                        |            |            |            |            |             |            | 7                         | ND          | 5.4        | 38.1       | 13.2       | 13.3        | 8.6        | 1.4        | 12           | ND          | 2          | 5²                               |
| TOTAL BTEX                      |                        |            |            |            |            |             |            | 18                        | 3           | 20.28      | 171.88     | 66.2       | 47.2        | 36.5       | 14.4       | 105.82       | ND          | 19         | NS                               |
| <b>Semi-volatile Org.(ug/L)</b> |                        |            |            |            |            |             |            |                           |             |            |            |            |             |            |            |              |             |            |                                  |
| 2-Methylnaphthalene             |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | NS                               |
| Napthalene                      |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | NS                               |
| <b>Metals (ug/L)</b>            |                        |            |            |            |            |             |            |                           |             |            |            |            |             |            |            |              |             |            |                                  |
| Chloride                        |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | 250,000                          |
| Sodium                          |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | 20,000                           |
| Iron (total)                    |                        |            |            |            |            |             |            | 174,000                   | 23,400      | ♦          | ♦          | ♦          | ♦           | 4100       | ♦          | ♦            | ♦           | ♦          | 300/500³                         |
| Iron (dissolved)                |                        |            |            |            |            |             |            | 1370                      | 307         | ND         | ND         | 610        | 5500        | 4100       | ND         | 2600         | 370         | 1600       | 300/500³                         |
| Manganese                       |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | 3600       | 280        | 3000         | 680         | 1600       | 300/500³                         |
| Lead                            |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | 25                               |
| <b>Other</b>                    |                        |            |            |            |            |             |            |                           |             |            |            |            |             |            |            |              |             |            |                                  |
| Nitrogen, Nitrate (ug/L)        |                        |            |            |            |            |             |            | 0.98                      | 240         | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND         | NS                               |
| Sulfate (ug/L)                  |                        |            |            |            |            |             |            | 57,000                    | 15,000      | 19         | 9          | 14,000     | 3,300       | 3,500      | 20,000     | 8,000        | 8,500       | 7,500      | 250,000                          |
| TOC (ug/L)                      |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | NS                               |
| Petroleum Hydrocarbons (ug/L)   |                        |            |            |            |            |             |            | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | NS                               |
| Carbon Dioxide (ug/L)           |                        |            |            |            |            |             |            | 230,000                   | 140,000     | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦          | NS                               |
| Dissolved Oxygen (mg/L)         |                        |            |            |            |            |             |            | 3.70                      | 5.45        | 3.30       | 3.01       | 16.25      | 5.03        | 8.30       | 8.70       | 3.02         | 1.13        | 0.00       | NS                               |



| WELL ID: PC-1                   |        |        |        |        |        |        |        | (Oct 2005)/<br>(Mar 2006) | (July 2007) | (Oct 2008) | (Jan 2010) | (Apr 2011) | (July 2012) | (Oct 2013) | (Jan 2015) | (April 2016) | (July 2017) |        | NYSDEC<br>CLASS GA<br>STANDARDS¹ |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|---------------------------|-------------|------------|------------|------------|-------------|------------|------------|--------------|-------------|--------|----------------------------------|
|                                 | May-00 | Jan-01 | May-01 | Jan-02 | Jan-03 | Sep-03 | May-04 | Mar-06                    | 1-Jul       | Oct-08     | Jan-10     | Apr-10     | Jul-12      | Oct-13     | Jan-15     | Apr-16       | Jul-17      | Oct-18 |                                  |
| <b>Volatile Organics (ug/L)</b> |        |        |        |        |        |        |        |                           |             |            |            |            |             |            |            |              |             |        |                                  |
| MTBE                            | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 10                               |
| Benzene                         | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 1                                |
| Toluene                         | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 5                                |
| Ethylbenzene                    | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 5                                |
| m,p-Xylene                      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 5²                               |
| O-Xylene                        | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 5²                               |
| Xylenes (total)                 | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | 5²                               |
| TOTAL BTEX                      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ND                        | ND          | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | NS                               |
| <b>Semi-volatile Org.(ug/L)</b> |        |        |        |        |        |        |        |                           |             |            |            |            |             |            |            |              |             |        |                                  |
| 2-Methylnaphthalene             | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | NS                               |
| Napthalene                      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | NS                               |
| <b>Metals (ug/L)</b>            |        |        |        |        |        |        |        |                           |             |            |            |            |             |            |            |              |             |        |                                  |
| Chloride                        | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | 250,000                          |
| Sodium                          | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | 20,000                           |
| Iron (total)                    | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 599                       | 952         | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | 300/500³                         |
| Iron (dissolved)                | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 28.6                      | 425         | ND         | ND         | ND         | ND          | ND         | ND         | ND           | 1400        | 240    | 300/500³                         |
| Manganese                       | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | 740        | 67         | 28           | 1500        | 2000   | 300/500³                         |
| Lead                            | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | 25                               |
| <b>Other</b>                    |        |        |        |        |        |        |        |                           |             |            |            |            |             |            |            |              |             |        |                                  |
| Nitrogen, Nitrate (ug/L)        | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 50                        | ND*         | ND         | ND         | ND         | ND          | ND         | ND         | ND           | ND          | ND     | NS                               |
| Sulfate (ug/L)                  | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 5000                      | 37,000      | 34         | 36         | 13,000     | 1,400       | 2,100      | 24,000     | 12,000       | 120,000     | 8,100  | 250,000                          |
| TOC (ug/L)                      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | NS                               |
| Petroleum Hydrocarbons (ug/L)   | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦                         | ♦           | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | NS                               |
| Carbon Dioxide (ug/L)           | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 10,000                    | 35,000      | ♦          | ♦          | ♦          | ♦           | ♦          | ♦          | ♦            | ♦           | ♦      | NS                               |
| Dissolved Oxygen (mg/L)         | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | ♦      | 2.72                      | 3.02        | 4.1        | 1.92       | 16.57      | 5.13        | 3.11       | 4.3        | 0.13         | 0.00        | 0.00   | NS                               |

