AECOM Environment

Prepared for:
Superfund Standby Program
NYSDEC
Albany, NY

Prepared by:
AECOM
Chestnut Ridge, NY
60277021
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Groundwater Sampling Report (September 2017 Sampling Event) Liberty Industrial Finishing Site Site #1-52-108 Work Assignment No. D007626-17.1

Draft

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1.0 Introduction

AECOM Technical Services Northeast, Inc. (AECOM) has prepared this Groundwater Monitoring Report for the Liberty Industrial Finishing Site in Brentwood, New York (Site No. 1-52-108). This work was performed for the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment D007626-17.1. Sampling rounds 1 through 5 were conducted by AECOM under Work Assignment D004445-14. As part of the long-term monitoring plan for the Site, groundwater samples are collected from selected monitoring wells once every five quarters. This groundwater monitoring report provides the results of the groundwater sampling data collected in September 2017.

Ten rounds of groundwater sampling have been conducted at the Site since 2006 when long term monitoring began.

- The first round (Round 1) of sampling was conducted in June 2006.
- The second round (Round 2) of sampling was conducted in August 2007.
- The third round of sampling (Round 3) was conducted in November 2008.
- The fourth round (Round 4) of sampling conducted in March 2010.
- The fifth round (Round 5) of sampling was conducted in May 2011.
- The sixth round (Round 6) of sampling was conducted in August 2012.
- The seventh round (Round 7) of samples was conducted in November 2013.
- The eighth round (Round 8) of samples was collected in March 2015.
- The ninth round (Round 9) of samples was collected in May 2016.
- The tenth round (Round 10) of samples was collected in September 2017.

This report focuses on the most recent (Round 10) sampling event at the site and includes the data from the earlier rounds.

2.0 Background Information

2.1 Site Description

The Liberty Industrial Finishing Superfund site is located at 550 Suffolk Avenue, Brentwood, Suffolk County, New York (see Figure 1).

The Site is approximately 3.9 acres in total area of which 1.3 acres are historically undeveloped. The remainder of the site consists of previously developed areas with remnants of the former building (concrete floor slab), walkways, parking lots, and driveway areas. The Site is located in an area that is primarily residential and light commercial. A Site location map is included as Figure 1.

The Site is bound to the north by Suffolk Avenue, to the east by commercial properties, to the south by the Long Island Rail Road (LIRR), and to the west by a gasoline retailer and a shopping plaza. The parcels immediately north of Suffolk Avenue are undeveloped. Immediately south of the LIRR are the Town of Islip Athletic fields and the water supply wells for the Brentwood Water District. The Brentwood municipal water supply wells are less than 500 feet south of the Site.

2.2 Site History

Liberty Industrial Finishing Products was a metal finishing facility engaged in finishing and plating of components used primarily in the aircraft industry. Metal finishing activities included passivation, phosphatization, electroplating, conversion coating, anodizing, painting, and non-destructive testing. Industrial operation of the facility spanned the period from 1978 through 1997. When active, the industrial operation at the Site included a 30,000-square foot factory building, six underground storage tanks (USTs) for plating process and wastewater, sanitary leaching pools, and stormwater drywells. The USTs were equipped with “emergency” overflow pipes that discharged to the on-site leaching pools.

Shortly after operations began at the Site, concerns for public health and the environment resulting from operational and waste handling practices at the Site were investigated by the Suffolk County Department of Health Services (SCDHS). In 1982, surface and subsurface discharges of waste water were addressed in an Order of Consent between Liberty and the SCDHS. Corrective actions were implemented to eliminate the discharge of industrial waste water to the environment and the order was reportedly satisfied.

An inspection conducted by NYSDEC in 1984 identified deficiencies in Site hygiene and waste handling practices. Samples were collected of the liquids in the sanitary leaching pool, the storm water dry well, and a soil sample was collected near the northeast corner of the building. The sanitary system and the storm water dry well were subsequently pumped out and cleaned (July 1985).

A Phase II Site Investigation was performed in 1987 and a Phase II Supplemental Site Investigation was performed in 1991. An emergency remedial measure removed a total of 45 inches of sediment/soil from the bottom of the leaching pool (1992). As a result of the Phase II supplemental site investigation, the Site was reclassified as a Class "2" site on the Registry of Inactive Hazardous Waste Disposal Sites in February of 1994.

A Consent Order (March 1996) required that the facility conduct a Focused Remedial Investigation (FRI) to determine the extent of contamination within the six USTs and the emergency leaching pool. FRI activities were never implemented by Liberty Industrial Finishing due to financial constraints.

In 1997, Liberty Industrial Finishing removed waste materials from the on-site building.

A Remedial Investigation (RI) was performed in 1997-1998 for NYSDEC by Dvirka and Bartilucci. Based on the RI, the NYSDEC conducted a supplemental Remedial Investigation/Feasibility Study (RI/FS) of the Site in 1997-1998. The results and conclusions of the supplemental RI/FS were documented in a report by Dvirka and Bartilucci dated September, 1999. Elevated concentrations of regulated metals, specifically chromium, were reported in excess of the applicable cleanup criteria in surface and subsurface soils, drainage structures, and on-site and off-site groundwater.

A Record of Decision (ROD) for the Site was issued by NYSDEC in March 1999. The ROD specified the site related contaminants of concern to include semivolatile organic compounds (phenol, benzo(k)anthracene, chrysene, and benzo(a)pyrene) in the sediment/sludge from the stormwater dry wells and metals (cadmium, chromium, copper, nickel, and zinc) in all media.

The United States Environmental Protection Agency (USEPA) conducted an emergency removal action including the removal of waste materials stored in the on-site factory building and the in-place closure of six USTs. The tanks were not removed due to the close proximity of the LIRR; however, UST in-place closure was determined to be equally protective of human health and the environment. A non-porous asphalt cap was constructed over the UST area to mitigate infiltration of precipitation into the contaminant source area (Figure 2).

All of the removal and in-place closure measures specified in the ROD were completed in September 2001. The results of these remedial actions were reported in the Final Remediation Report (Dvirka and Bartilucci, July 2002).

The property has entered the New York State Land Bank Program.

2.3 Deviations from the Site Management Plan

There were no deviations from the Site Management Plan (AECOM, 2014) during this round of sampling other than collecting samples for perfluorinated compounds and 1,4-dioxane.

3.0 Field Activities

The monitoring well survey information could not be located at the start of this project. As a part of this long-term monitoring program, each of the eight wells included in the sampling program were re-surveyed by YEC, Inc., a licensed New York State surveyor on March 21, 2007. A summary of well construction data is presented on Table 1.

3.1 Water Level Survey

Prior to the start of sampling, water levels were measured in each well to provide a synoptic event. Groundwater level measurements were recorded in the Field Notebook and on the Well Sampling Forms included in Appendix A. NYSDEC Monitoring Well Field Inspection Forms were completed for each well and are included in Appendix B. A summary of groundwater elevation measurements for all sampling events since 2006 is provided in Table 2. Each location was photo-documented and a hand-held global positioning system (GPS) unit was used to record the coordinates. The total depth of each of the 14 wells also varies significantly from 42.5 to 265 feet (ft). The groundwater elevation data are shown on Figure 3.

A groundwater hydrograph is presented in Figure 4. As shown on the figure, the groundwater elevations are very consistent from sampling event to sampling, generally rising and falling in unison. This trend was not present in the November 2013 sampling event. Using the previous August 2007 to November 2008 elevations to predict the trend for this round, the groundwater elevations should have dropped. This was not the case for three wells which exhibited rising water levels and three additional wells that did not drop in unison with the other wells. This is most evident in the four shallow wells along the southern property boundary, MW-2, MW-3, and MW-4, which are less than 100 ft apart. During the previous two sampling events, the groundwater elevations in these four wells were all within a few inches of each other and moved in unison from May 2011 to August 2012. During the November 2013 event, the water table in MW-2 rose significantly, decreased at MW-3, and dropped significantly at MW-4 so that the difference between MW-2 and MW-4 was over 3 ft. Several other wells deviated from the previous trends. The reason for these deviations is unknown at this time. The long term trend appears to have returned for the March 2015, May 2016 and September 2017 rounds with most elevations back to their relative positions as note during the May 2011 and August 2012 events.

3.2 September 2017 Groundwater Sampling Event

Thirteen monitoring wells were identified for long term monitoring at the Site. The selected wells include MW-2, MW-3, MW-4, MW-5, MW-6, MW-10, MW-12, MW-14, MW-16, MW-18, MW-19, MW-20, and MW-21. Well locations are shown on Figure 2.

The tenth round of groundwater sampling at the Liberty Industrial Finishing Site occurred on September 13 and 14, 2017. Sampling was conducted in accordance with the Site Management Plan ([SMP] AECOM, September 2014). At the request of NYSDEC, all wells were sampled for perfluorinated compounds and 1,4-dioxane, in addition to the usual TAL Metals. The existing poly tubing was removed from the monitoring wells and replaced with HDPE tubing. The groundwater samples were collected after stabilization using low-flow sampling methods with HDPE tubing and a Geotech Bladder Pump. The HDPE tubing was removed from the wells and the bonded poly tubing was placed back into the monitoring wells after sampling was completed. All field work was performed in Level D personal protection. Field measurements of temperature, conductivity, dissolved oxygen, pH, oxygen reduction potential and turbidity were collected at approximately five-minute intervals. A sample was collected when parameters had stabilized for three consecutive readings. Both unfiltered and filtered groundwater samples were collected; filtered samples were field filtered using 0.45 micro filters. Purge forms are included as Appendix A.

During previous sampling events, a Grundfos Redi-Flo2 submersible electric pump was used to purge at least three casing volumes of water prior to sampling. Groundwater samples were then collected using a Teflon bailer.

During the Round 6, 7, 8 and 9 sampling events, groundwater samples were collected using low-flow techniques as detailed in the SMP. A bladder pump with poly discharge tubing was used to purge each monitoring well. An in-line flow cell was used to collect measurements of pH, specific conductance, temperature, dissolved oxygen, oxygen reduction potential, and turbidity. The measurements were recorded on the Well Sampling Forms at five minute intervals during purging. Samples were collected after the field measurements had stabilized. The sample was collected into laboratory supplied containers and stored in an ice-filled cooler. During this round, filtered metals samples were also collected. Groundwater samples were filtered in the field using dedicated, disposable 0.45-micron filters. Filtered groundwater samples were then poured into laboratory-supplied containers and placed in an ice-filled cooler. The samples were then transported to Hampton-Clarke Veritech Laboratory via laboratory courier. Proper chain-of-custody procedures and requirements were maintained throughout the sampling event in accordance with the SMP.

The field crew returned to the Site on November 9, 2017 to collect the 1,4-dioxane samples. A Hydrasleeve was placed within each well the day before sampling. The sample was collected by rapidly pulling the Hydrasleeve up at the depth of the screen. The HydraSleeve collects a sample from within the screen only. It excludes water from any other part of the water column in the well through the use of a self-sealing check valve at the top of the sampler. It is a single-use (disposable) sampler that is not intended for reuse, so there are no decontamination requirements for the sampler itself.

3.3 Site Inspection

In accordance with the SMP, the Site was inspected on September 13, 2017 as part of the 5-quarterly sampling event. The site inspection form is included in Appendix C. The Site has been transferred to the land bank. The new owner is in the process of cleaning up the Site; however, the Site is in

general disrepair. There is evidence of unauthorized entry on to the property (homeless people and local youth who use the property for skateboarding). Vegetation growth at the Site is uncontrolled. The Site is littered with trash.

The lock on the main gate is missing. The owner has removed the front gate and replaced it with Jersey barriers that can be removed by heavy equipment as the cleanup proceeds. There is general trash scattered across the site. The condition of the asphalt cap is moderate. There are several visible cracks in the pavement with weeds growing in the cracks. The inspection form is included in Appendix C.

4.0 Sampling Results

The samples from monitoring wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-10, MW-12, MW-14, MW-16, MW-18, MW-19, MW-20, and MW-21 were labeled with the L- prefix to denote they were collected from the Liberty site. Groundwater samples were analyzed for target analyte list (TAL) metals using USEPA Method 6010/7470 and 1,4-dioxane using SW-846 Method 8270D. Perfluorinated compounds analysis was subcontracted to SGS North America; samples were analyzed using modified EPA Method 537. The analyses were performed by Hampton Clarke Veritech (HCV), Fairfield, New Jersey, a NYSDOH ELAP certified laboratory (ELAP certification number 11408). The HCV data summary packages are included in Appendix D. A table showing the full data set is also included in Appendix D. A summary of the detections is presented in Table 3. The exceedances are also shown on Figure 5. Bar charts for cadmium, chromium, and lead are shown on Figures 6, Figure 8, and Figure 10, respectively. The data are discussed in the sections below.

In accordance with project plans, formal data validation was not performed. However, an AECOM chemist provided a limited review of the data packages. The review of the Round 10 data is presented in Section 4.4.

4.1 Metals Data

Concentrations of ten metals have been detected above the Class GA criterion in monitoring wells at the Site at least once during the ten sampling events. These metals include antimony, cadmium, chromium, copper, iron, lead, manganese, selenium, sodium and thallium. The five metals in the table below were listed as contaminants of concern (COCs) in the ROD. Results of the previous nine sampling events are summarized on Table 3. The Round 10 results are shown on Figure 5.

Contaminants of Concern and Cleanup Criteria

	Groundwater (µg/L)	
Cadmium	10	* (5)
Chromium	50	
Copper	200	
Nickel	100	
Zinc	300	* (2,000)
Cyanide	100	

Notes:

Contaminants of concern and cleanup criteria taken from the March 1991 ROD, Section 4.4.1
* - Indicates NYSDEC criteria has changed since 1991 ROD was issued
NC - No criterion

µg/L - micrograms per liter

Monitoring well locations are shown on Figure 2. Three wells (MW-2, MW-3 and MW-4) at the Site are located immediately south of the former USTs and are considered source area wells. Four wells (MW-5, MW-6, MW-18 and MW-19) are located sidegradient of the main contamination plume. Four wells (MW-10, MW-16, MW-12 and MW-14) are located downgradient of the former USTs. Two wells (MW-20 and MW-21) are sentinel wells.

4.1.1 Source Area Monitoring Wells

The three source area monitoring wells, MW-2, MW-3, andMW-4, were added to the long term monitoring program in May 2011 (Round 5).

During Round 10, cadmium concentrations exceeded the 5 µg/L criterion in both unfiltered and filtered samples from MW-3 and MW-4 at concentrations ranging from 8.5 µg/L to 95 µg/L (Figure 5). Historically, cadmium concentrations in MW-2 and MW-3 have mostly been below the criterion or not detected. At MW-4, cadmium concentrations have exceeded the criterion during all six sampling rounds (Figure 6A).

Chromium concentrations in the unfiltered sample from MW-3 exceeded the criterion; the filtered sample was not detected. Historically, chromium concentrations in all six unfiltered samples exceeded the criterion while only three filtered samples exceeded the criterion. At MW-4, four of six unfiltered samples have exceeded the criterion while only three of six filtered samples have exceeded the criterion (Figure 8A).

Iron concentrations in the unfiltered sample from MW-3 exceeded the 300 µg/L criterion. Historically, there have been a few iron exceedances in the unfiltered samples.

Sodium concentrations in both unfiltered and filtered also exceeded the criterion in MW-2 and MW-3 but were below the criterion in MW-4.

4.1.2 Sidegradient Monitoring Wells

The four sidegradient monitoring wells include MW-5, MW-6, MW-18 and MW-19.

No COC metals were detected in any of the sidegradient monitoring wells during this sampling round.

Sodium concentrations exceeded the 20,000 µg/L criterion in both unfiltered and filtered samples from MW-18. Manganese exceeded the criterion in both unfiltered and filtered sample from MW-18 (Figure 5).

4.1.3 Downgradient Monitoring Wells

The four downgradient monitoring wells include MW-10, MW-16, MW-12 and MW-14.

Cadmium exceeded the 5 µg/L criterion in both unfiltered and filtered samples from MW-10, MW-16 and MW-14 and the unfiltered sample from MW-14 (Figure 6B). Historically, cadmium concentrations have exceeded the criterion in every sample from MW-10, ranging in concentration from 10.3 µg/L to 80 µg/L. Seven of ten unfiltered samples from MW-12 have exceeded the criterion while only one filtered sample has exceeded the criterion. Six of ten unfiltered samples from MW-14 have exceeded the criterion while only one of six filtered samples has exceeded the criterion.

Chromium concentrations in both unfiltered and filtered samples from MW-10 and MW-14 exceeded the 50 µg/L criterion during Round 10 (Figure 5). Historically, chromium concentrations in these two monitoring wells have exceeded the criterion in both unfiltered and filtered samples (Figure 8B).

Lead was not detected in any of the unfiltered or filtered samples from downgradient monitoring wells during Round 10 (Figure 10A).

During Round 10, sodium concentrations exceeded the criterion in MW-12 and MW-14. Manganese concentrations exceeded the criterion in MW-16.

4.1.4 Sentinel Monitoring Wells

The sentinel wells include MW-20 and MW-21, located approximately 670 ft southeast of the Site.

Iron exceedances were noted during Round 10 in the two sentinel wells in both unfiltered samples and in the filtered sample from MW-21.

Sodium concentrations equaled or exceeded the criterion in both wells in both the unfiltered and filtered samples.

Historically, the only other exceedances noted in the sentinel wells have been a few isolated exceedances of antimony and manganese.

4.2 Filtered versus Unfiltered Metals Samples

Concentrations of total metals in groundwater samples at the Site tended to be highly variable between sampling events, as did field measurements of turbidity at the time of sample collection. Turbidity is typically correlated with the presence of suspended matter (e.g., entrained soil particles in the sample). Therefore, in Round 5 (May 2011), Round 6 (August 2012), Round 7 (November 2013), Round 8 (March 2015), Round 9 (May 2016), and Round 10 (September 2017), total metals (unfiltered) and dissolved metals (field filtered) groundwater samples were collected to evaluate the effect of turbidity on the metals concentrations.

The NYSDEC turbidity criterion is 50 nephelometric turbidity units (NTU) or less for well development and groundwater sampling (TAGM 4015; NYSDEC, 1988). At the Liberty Industrial Finishing Site, the turbidity was below 50 NTU at the time of sampling in 11 of 13 samples, ranging from 0.0 to 71 NTU (see the bottom row of Table 4).

Table 4 presents a comparison of the total metals and the dissolved metals data for the 13 filtered/ unfiltered sample pairs collected at the Liberty Site. The "percent dissolved" shown on the table is the ratio of the filtered sample concentration to the total (unfiltered) sample concentration.

Concentrations of metals that typically exist primarily in the dissolved phase (e.g., sodium and calcium) are not expected to be affected by filtering. Hence the two samples (filtered and unfiltered) should essentially act as field duplicate samples for these parameters, and the concentrations in the filtered/unfiltered pairs would be expected to be very similar (e.g., the filtered/unfiltered ratio is close 100% +/- 10%). The filtered/unfiltered pairs for these two compounds were generally similar in the filtered and unfiltered samples indicating good reproducibility in the sampling/analytic process, with one exception discussed in Section 4.4.

Most of the other metals are expected to be generally associated with solid particles. Therefore, it would be expected that the concentration in the filtered samples would range from similar to the unfiltered samples (for those wells with very low turbidity), to significantly lower for those wells with high turbidity (as long as the concentration are sufficiently higher than the detection for an accurate comparison). This is the case for all well samples. However, an important distinction in the data is that most of the "particle associated" metals (e.g., iron) were not detected in the filtered samples (i.e. are not soluble) except for cadmium, which was 75% soluble or greater in all six samples with detectable levels. Thus, in samples where cadmium is detected, it is also often detected in the filtered (dissolved) samples.

4.3 1,4-Dioxane and Perfluorinated Compounds Sampling Results

At the request of NYSDEC, all 13 monitoring wells sampled during Round 10 were analyzed for 1,4-dioxane and perfluorinated compounds.

1,4-Dioxane was not detected in any of the 13 monitoring wells.

Groundwater samples from all 13 monitoring wells were analyzed for 20 perfluorinated compounds. Perfluorinated compounds were detected in all 13 monitoring wells. Concentrations of individual compounds ranged from not detected to 305 ng/L. MW-3 was the only location where an individual concentration of PFOS exceeded the EPA Health Advisory value of 70 ng/L. A summary of the detections is shown in Table 5.

4.4 Round 10 (September 2017) Data Quality Review

In accordance with the project plans, data generated for this investigation were not subject to formal validation. However, AECOM's quality assurance officer (QAO) reviewed the data for reasonableness and the presence of any anomalies, including issues identified by the laboratory in the case narrative, and other items noted in review of shipping and handling documentation, inconsistencies with previous data, and review of the laboratory QA forms. The QAO also reviewed the field duplicate data.

Filtered and unfiltered groundwater samples were collected from 13 monitoring wells on September 13 and 14, 2017, and received in good condition by the laboratory (Hampton Clarke Veritech, Fairfield, New Jersey) on September 15, 2017. Samples were analyzed for target analyte list (TAL) metals (unfiltered and filtered) as sample delivery group (SDG) AD 00074. One field equipment blank was collected (LFB) . Samples LMW-5 (unfiltered) and LMW-5F (filtered) were designated as the QC samples (spike and duplicate analysis), for the Round 10 sampling event. The unfiltered samples for PFAS were also collected on September 13 and 14, 2017 and arrived at the subcontracted laboratory SGS in good condition on September 19, reported as SDG 31700832 by that laboratory. Samples for 1,4-dioxane were collected on November 8, 2017 and received in good condition at Hampton Clarke Veritech on November 10, 2017. 1,4-Dioxane samples are in SDG AD01096.

For SDG AD 00074 Laboratory QC limits were met for initial and continuing calibrations, blanks, laboratory control sample (LCS) recovery, matrix spikes, matrix spike duplicates, and laboratory duplicate precision. The post digestion spike exceeded limits for silver suggesting a low bias. Serial dilutions criteria were not met for magnesium, manganese, and potassium suggesting potential interference. All other laboratory QC criteria were met for SDG AD 00074.

In SDG 31700832, the subcontracted laboratory (SGS) for the PFAS analysis reported all QA/QC limits were met except for the following. One sample (LMW-14), which was turbid (71.0 NTUs), had low recoveries on all three surrogates due to particulate matter, which required four cartridges to be used for extraction, suggesting a possible low bias in the results. All of the samples, except for the field blank, had a low recovery on one of the surrogates (d5-NEtFOSAA) recoveries suggesting a low bias. Two of the samples (LMW-6 and LMW-21) had low recoveries on two of the three surrogates. The laboratory flagged between one and nine results per sample with a “J” as estimated due to the results being above the detection limit but below the reporting limit.

The 13 wells were sampled for 1,4-dioxane analysis on unfiltered samples as SDG AD01096. Sample LMW-19 unfiltered was designated as the QC sample (spike and duplicate analysis). Laboratory QC limits for 1,4-dioxane were met for holding times, initial and continuing calibrations, blanks, LCS recovery, matrix spikes and spike duplicates, laboratory spike recovery, and laboratory duplicate recovery. LMW-12 had surrogates outside of the control limits suggesting a low bias.

LMW-12 was diluted (x5) due to high levels of non-target analytes. Although not a reported target compound, the raw data for LMW-12 and LMW-14 show high levels of total petroleum hydrocarbons (e.g. diesel or fuel oil). Future sampling should include analysis to explore this issue further.

The filtered/unfiltered data pairs (see Table 4) were reviewed for anomalies, using the USEPA Region II metals validation criteria (USEPA HW-2, revision 13; USEPA, 2006). Based on these criteria, if the dissolved (filtered sample) result exceeds the total (unfiltered) sample by more than 20 percent, the accuracy of the quantitation is suspect and both samples should be flagged (J) as estimated. If the filtered sample result exceeds the unfiltered sample result by more than 50 percent, the data is

considered unusable and both samples should be flagged as rejected (R). One result (sodium at 134.8%) in LMW-4 exceeded the 20 percent criterion and should be flagged "J".

One filtered/unfiltered site-specific field duplicate groundwater sample pair (LMW-3 and 3F/LMW-53 and 53F) was collected from the Liberty site in Round 10 (Table 6). In the unfiltered sample pair (LMW-3/LMW-53U), relative percent difference (RPD) ranged from 0.0 to 5.9 percent, for the six metals with results in both samples above the contract required detection limit. Precision was good in the filtered duplicate pair (3F/53F) for the three metals with results above the contract required detection limit, with RPDs of 0.0 and 4.8 percent.

4.4.1 Overall Round 10 Data Quality Assessment

Field and laboratory-reported QC associated with the three Liberty sample delivery groups (SDGs) AD00074, 31700832, and AD01096 for groundwater was acceptable. Laboratory QC was acceptable for the sediment samples. The laboratory reported that the data quality was acceptable. The data are considered usable for their intended purpose.

5.0 Summary and Recommendations for Future Site Remediation Activities

5.1 Summary of Groundwater Sampling Data

As noted in Section 4.1, five metals (cadmium, chromium, copper, lead and zinc) were listed in the ROD as COCs. Based on a review of the data from the ten sampling events, concentrations of antimony, cadmium, chromium, copper, iron, lead, manganese, selenium, sodium, and thallium have been detected at concentrations above their Class GA criteria. Based on the September 2017 sample results, the following metals exceeded Class GA criteria in unfiltered samples: cadmium (five wells), chromium (four wells), iron (seven wells), manganese (two wells), and sodium (seven wells). The following metals equaled or exceeded the Class GA criteria in filtered samples: cadmium (four wells), chromium (three wells), manganese (two wells), and sodium (six wells).

Iron, manganese and sodium are naturally occurring metals in groundwater on Long Island. The exceedances of these metals most likely represent background conditions and are not related to previous site activities.

5.1.1 Source Area Monitoring Wells

Three shallow monitoring wells (MW-2, MW-3, and MW-4) are located near the former plating waste tanks. During the September 2017 sampling event, dissolved concentrations of cadmium and sodium were detected above their respective cleanup criteria as shown on Figure 5. Unfiltered samples also included exceedances of chromium and iron. Historically, concentrations of cadmium have exceeded the criterion in both filtered and unfiltered samples at MW-4 while chromium exceedances have been noted at MW-4 .

5.1.2 Sidegradient Monitoring Wells

Shallow monitoring well MW-5 is located west of the source area (plating waste tanks and leaching pools). The only exceedance noted in the September 2017 sampling event was sodium. Historically, there have been no exceedances of other TAL metals at this location with the exception of one exceedance of antimony during ten rounds of sampling.

Very deep monitoring well MW-18 is screened approximately 150 ft bgs and is sidegradient to the source area. There were no exceedances noted at MW-18 during the September 2017 sampling event, with the exception of manganese and sodium (both unfiltered and filtered samples). Historically, there have been a few sporadic exceedances of antimony and iron in unfiltered samples.

Two wells, MW-6 and MW-19, are screened in the Magothy Formation (approximately 250 ft bgs). There were no exceedances noted in the September 2017 samples. Historically, the only cadmium

exceedance in either of these wells was in the unfiltered samples from the August 2007 sampling event. Cadmium concentrations have not exceeded the criterion since in either unfiltered or filtered samples (Figure 6A). There have been sporadic exceedances of antimony, iron and thallium in these wells (Table 3).

5.1.3 Downgradient Monitoring Wells

Two shallow wells, MW-10 and MW-12, are located downgradient of the plating waste tanks. During the September 2017 sampling event, cadmium and chromium exceeded the criteria in MW-10 (both unfiltered and filtered samples). There were no filtered exceedances other than sodium in MW-12, the most downgradient shallow well at the Site. Historically, MW-10 has had exceedances of both cadmium and chromium in both unfiltered and filtered samples, while MW-12 has had a few unfiltered cadmium exceedances (Figures 6A and 8A).

Two deep monitoring wells (screened approximately 100 ft below ground surface (bgs) MW-16 and MW-14 are located downgradient of the Site as shown on Figure 2. These two deep wells align with the general direction of groundwater flow leading away from the source area plating waste tanks. MW-16 is immediately downgradient of the source area, and MW-14 is further downgradient of the Site. There were exceedances of cadmium and manganese in both the unfiltered and filtered samples from MW-16 noted in the September 2017 sampling event. Iron exceeded the criterion in the unfiltered sample only. Prior to this sampling round, cadmium had been detected in all the unfiltered and filtered samples at MW-16 but at concentrations below the criterion with the exception of the unfiltered sample from May 2011 (Figure 6B). At MW-14, there has been only one filtered cadmium exceedance noted during the six sampling events where filtered samples were collected. Three of six filtered chromium samples from MW-14 have exceeded the criterion. There have been several exceedances of these two metals in unfiltered samples (Figures 6A and 8A). Historically, there have been exceedances of antimony, copper, iron, lead, selenium and sodium in these two downgradient locations (Table 3).

5.1.4 Sentinel Monitoring Wells

Deep monitoring well MW-21 had exceedances of iron and sodium in both unfiltered and filtered samples in Round 10. Sodium was at the criterion in very deep monitoring well MW-20 in both unfiltered and filtered samples. Historically, there have been sporadic exceedances of antimony in the two sentinel monitoring wells (Table 3).

5.2 Contaminant Distribution

Isoconcentration maps of the shallow wells were prepared for filtered cadmium results and are shown on Figures 7 (August 2012), 7A (November 2013), 7B (March 2015), 7C (May 2016), and 7D (September 2017). As shown on these maps, the filtered cadmium plume extends south from the plating waste tanks into the athletic fields. In August 2012, the leading edge of the plume extended south of MW-12 (Figure 7). Subsequent sampling events indicate that the leading edge of the plume

has retreated as concentrations have dropped below the criterion for the last three sampling events (Figures 7A, 7B, 7C, and 7D).

Isoconcentration maps were also prepared for chromium results in shallow wells and are shown on Figures 9 (May 2011), 9A (November 2013), 9B (March 2015), 9C (May 2016), and 9D (September 2017). As shown on these figures, the chromium plume extends south of the plating waste tanks similar to the cadmium plume. In May 2011, the leading edge of the plume appeared to be sinking as it was present in deep well MW-14 but not in the adjacent shallow well MW-12. The chromium plume appeared larger in the November 2013 event where concentrations at MW-10 were higher than in 2011. The May 2016 and September 2017 contours indicate a similar sized plume as was found during the November 2013 plume where the concentration at MW-10 was similar and the concentration at downgradient location MW-14 was above the criterion.

5.3 Recommendations for Future Work

Concentrations of cadmium and chromium were detected above their respective Class GA criterion in several monitoring wells during the September 2017 sampling event; all the exceedances were noted in shallow monitoring wells. AECOM recommends continued sampling to determine if the cadmium and chromium plumes are migrating downgradient of the Site.

Paired filtered/unfiltered groundwater samples for metals analysis were collected from all monitoring wells in the May 2011, August 2012, November 2013, March 2015, May 2016 and September 2017 sampling events. Cadmium appears to be present in the dissolved phase with dissolved concentrations at 50% of the unfiltered samples or greater, whereas chromium and lead are not found in the filtered samples. Filtering of samples can be discontinued, since the data have demonstrated that the presence of cadmium in a unfiltered sample does indicate site related contamination of the groundwater, while the presence of other metals such as lead and chromium are only associated with soil particles and do not reliably indicate site related contamination.

1,4-Dioxane does not appear to be a contaminant of concern at the Site.

Only one well, MW-3, had an exceedance of perfluorinated compounds above the EPA Health Advisory Limit. Since MW-3 is a source area monitoring well, this location should be re-sampled to confirm the presence of perfluorinated compounds.

The next scheduled sampling event at the Liberty Site is November 2018.

Tables

TABLE 1
LIBERTY INDUSTRIAL FINISHING SITE (1-25-108)
WELL CONSTRUCTION DATA

Well Number	Northing	Easting	Ground Elevation	Top of Riser Elevation	Top of Casing Elevation	Total Depth of Well
MW-1	202,384.57	2,206,633.80	92.92	91.57	92.92	42.5
MW-2	202,371.27	2,206,596.31	92.87	91.27	92.87	54.2
MW-3	202,360.99	2,206,568.43	93.08	91.25	93.08	53.9
MW-4	202,344.02	2,206,522.24	93.09	91.61	93.09	53.4
MW-5	202,308.86	2,206,350.98	92.19	93.32	93.60	50.0
MW-6	202,306.77	2,206,341.15	92.09	92.71	92.79	265.0
MW-10	202,243.14	2,206,590.12	91.84	90.40	91.84	50.0
MW-12	201,973.43	2,206,863.98	91.08	89.59	89.79	49.3
MW-14	201,966.33	2,206,866.03	91.12	89.55	89.77	100.0
MW-16	202,243.14	2,206,611.76	91.97	90.48	91.97	99.2
MW-18	202,101.70	2,206,373.86	93.14	91.55	92.03	150.0
MW-19	202,102.30	2,206,386.65	93.32	91.98	92.19	248.0
MW-20	201,798.92	2,206,946.09	90.27	88.59	89.08	149.5
MW-21	201,798.35	2,206,950.31	90.33	88.66	89.15	110.5

All elevations and depths in feet
Field survey performed by YEC, Inc., on March 23, 2007
(monitoring wells MW-1, 2, 3, 10 and 16 were not surveyed in 2007 as these wells were not included in the sampling at that time, these coordinates are estimated)
Horizontal datum: NAD 1927 State Plan
Vertical datum: NAVD 88, for NGVD 29, add 1.13 feet

TABLE 2
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
GROUNDWATER ELEVATIONS

Well # (screen interval)	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-1	91.57	42.5	5/24/11	dry	NA	No water was observed in the well
(shallow)			8/21/12	dry	NA	No water was observed in the well
			11/5/13	dry	NA	No water was observed in the well
			3/18/15	dry	NA	No water was observed in the well
			5/9/16	dry	NA	No water was observed in the well
			9/13/17	dry	NA	No water was observed in the well
MW-2	91.27	54.2	5/24/11	42.91	48.36	
(shallow)			8/21/12	44.05	47.22	
			11/5/13	43.21	48.06	
			3/18/15	43.84	47.43	
			5/9/16	45.30	45.97	
			9/13/17	47.30	43.97	
MW-3	91.25	53.9	5/24/11	42.90	48.35	
(shallow)			8/21/12	44.00	47.25	
			11/5/13	45.21	46.04	
			3/18/15	44.10	47.15	
			5/9/16	45.31	45.94	
			9/13/17	47.26	43.99	
MW-4	91.61	53.4	5/24/11	43.25	48.36	
(shallow)			8/21/12	44.36	47.25	
			11/5/13	46.60	45.01	
			3/18/15	44.18	47.43	
			5/9/16	45.65	45.96	
			9/13/17	47.61	44.00	
MW-5	93.23	50.0	6/12/06	42.24	50.99	
(shallow)			8/21/07	43.11	50.12	
			11/13/08	45.40	47.83	
			3/10/10	43.37	49.86	
			5/23/11	44.92	48.31	
			8/21/12	45.99	47.24	
			11/5/13	47.19	46.04	
			3/18/15	45.85	47.38	
			5/9/16	47.35	45.88	
			9/13/17	49.30	43.93	

TABLE 2
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
GROUNDWATER ELEVATIONS

Well # (screen interval)	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-6 (Magothy)	92.71	265.0	6/12/06	42.19	50.52	
			8/21/07	43.15	49.56	
			11/13/08	45.23	47.48	
			3/10/10	43.12	49.59	
			5/23/11	44.76	47.95	
			8/21/12	45.70	47.01	
			11/5/13	45.95	46.76	
			3/18/15	48.30	44.41	
			5/9/16	47.15	45.56	
			9/13/17	49.16	43.55	
MW-10 (shallow)	90.40	50.0	5/24/11	42.12	48.28	
			8/21/12	43.18	47.22	
			11/5/13	43.10	47.30	
			3/18/15	43.30	47.10	
			5/9/16	44.50	45.90	
			9/14/17	46.49	43.91	
MW-12 (shallow)	89.59	49.3	6/14/06	39.09	50.50	
			8/24/07	39.95	49.64	
			11/13/08	42.25	47.34	
			12/23/08	41.81	47.78	
			3/10/10	40.07	49.52	
			5/24/11	41.69	47.90	
			8/21/12	42.75	46.84	
			11/5/13	43.00	46.59	
			3/18/15	42.52	47.07	
			5/9/16	43.82	45.77	
			9/14/17	46.08	43.51	
MW-14 (deep)	89.55	100.0	6/14/06	39.13	50.42	
			8/24/07	40.00	49.55	
			11/13/08	42.35	47.20	
			12/23/08	41.98	47.57	
			3/10/10	40.18	49.37	
			5/24/11	41.82	47.73	
			8/21/12	42.86	46.69	
			11/5/13	43.02	46.53	
			3/18/15	42.77	46.78	
			5/9/16	44.21	45.34	
			9/14/17	46.21	43.34	

TABLE 2
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
GROUNDWATER ELEVATIONS

Well # (screen interval)	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-16 (deep)	90.48	99.2	5/24/11	42.03	48.45	
			8/21/12	43.41	47.07	
			11/5/13	44.63	45.85	
			3/18/15	43.21	47.27	
			5/9/16	44.74	45.74	
			9/14/17	46.72	43.76	
MW-18 (very deep)	91.55	150.0	6/22/06	40.76	50.79	
			8/21/07	41.25	50.30	
			11/13/08	43.80	47.75	
			3/10/10	41.82	49.73	
			5/24/11	43.41	48.14	
			8/21/12	44.47	47.08	
			11/5/13	45.69	45.86	
			3/18/15	44.46	47.09	
			5/9/16	47.50	44.05	
			9/14/17	47.74	43.81	
MW-19 (Magothy)	91.98	265.0	6/22/06	41.95	50.03	
			8/21/07	41.60	50.38	
			11/13/08	43.90	48.08	
			3/10/10	42.78	49.20	
			5/24/11	44.39	47.59	
			8/21/12	45.51	46.47	
			11/5/13	44.52	47.46	
			3/18/15	45.20	46.78	
			5/9/16	46.61	45.37	
			9/14/17	48.71	43.27	
MW-20 (very deep)	88.59	149.5	6/14/06	38.29	50.30	
			8/21/07	39.18	49.41	
			11/13/08	41.20	47.39	
			3/10/10	39.30	49.29	
			5/24/11	40.95	47.64	
			8/21/12	41.99	46.60	
			11/5/13	43.24	45.35	
			3/18/15	41.81	46.78	
			5/9/16	43.35	45.24	
			9/13/17	45.24	43.35	

TABLE 2
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
GROUNDWATER ELEVATIONS

Well # (screen interval)	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-21 (deep)	88.66	110.5	6/14/06	38.30	50.36	
			8/21/07	39.20	49.46	
			11/13/08	41.47	47.19	
			3/10/10	39.31	49.35	
			5/24/11	40.94	47.72	
			8/21/12	41.97	46.69	
			11/5/13	43.20	45.46	
			3/18/15	41.79	46.87	
			5/9/16	43.30	45.36	
			9/13/17	45.16	43.50	

All measurements were taken from the top of PVC casing
Well Screen Interval

Shallow - 50 ft bgs
Deep - 100 ft bgs
Very deep - 150 ft bgs
Magothy - 250 ft bgs

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-2		MW-2		MW-2		MW-2		MW-2	
Sample ID	Class GA	LMW-2		LMW-2		LMW-2		LMW-2F		LMW-2	LMW-2F
Laboratory ID	Ground	K0943-11		K0943-12		L1807-12		L1808-12		AC75576-029	AC75576-030
Sample Date	Water	5/26/11		5/26/11		8/23/12		8/23/12		11/6/13	11/6/13
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered		Unfiltered	Filtered
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc. Q	conc. Q
Aluminum	NC	118	B	ND		602		ND		ND	ND
Antimony	3	ND		ND		ND		ND		ND	ND
Arsenic	25	ND		ND		ND		ND		ND	ND
Barium	1,000	44.6	B	44.9	B	39.5	B	31.9	B	ND	ND
Beryllium	3	ND		ND		ND		ND		ND	ND
Cadmium	5	***8.5***		***5.5***		3.5	B	2.7	B	ND	ND
Calcium	NC	16,300		16,700		20,400		21,500		30,000	29,000
Chromium	50	***51.9***		48.2		26.7		12.0	B	***62.0***	***59.0***
Cobalt	NC	ND		ND		ND		ND		ND	ND
Copper	200	24	B	ND		14.4	B	4.2	B	ND	ND
Iron	300	205		ND		***853***		ND		ND	ND
Lead	25	ND		ND		ND		ND		ND	ND
Magnesium	35,000	3,180		3,250		3,720		3,870		ND	ND
Manganese	300	ND		ND		17.7	B	ND		ND	ND
Mercury	0.7	ND		ND		ND		ND		ND	ND
Nickel	100	5.5	B	2.7	B	4.6	B	3.3	B	ND	ND
Potassium	NC	2,720		2,610		1,710	E	1,660		ND	ND
Selenium	10	ND		ND		ND		ND		ND	ND
Silver	50	ND		ND		ND		ND		ND	ND
Sodium	20,000	***21,300***		***22,400***		***21,400***		***22,900***		15,000	16,000
Thallium	0.50	ND		ND		ND		ND		ND	ND
Vanadium	NC	ND		ND		1.4	B	ND		ND	ND
Zinc	2,000	29.2	B	24.8	B	51.0		26.1	B	ND	ND

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
E - Estimated value due to interference
N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
Sample ID	Class GA	LMW-2	LMW-2F	LMW-2	LMW-2F	LMW-2	LMW-2F
Laboratory ID	Ground	AC83866-001	AC83866-002	AC91321-008	AC91321-009	AD00074-001	AD00074-002
Sample Date	Water	3/18/15	3/18/15	5/11/16	5/11/16	9/13/17	9/13/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	1,200	ND	ND	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	ND	ND	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	ND	ND	ND	2.9	3.2
Calcium	NC	16,000	15,000	29,000	30,000	32,000	34,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***1,700***	ND	ND	ND	ND	ND
Lead	25	10.0	ND	ND	ND	ND	ND
Magnesium	35,000	ND	ND	ND	ND	5,500	5,800
Manganese	300	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	9,600	9,700	14,000	15,000	***25,000***	***26,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	ND	ND	ND	ND

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
E - Estimated value due to interference
N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-3		MW-3		MW-3		MW-3		MW-3	
Sample ID	Class GA	LMW-3		LMW-3		LMW-3		LMW-3F		LMW-3	LMW-3F
Laboratory ID	Ground	K0943-13		K0943-14		L1807-13		L1808-13		AC75576-001	AC75576-002
Sample Date	Water	5/26/11		5/26/11		8/23/12		8/23/12		11/4/13	11/4/13
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered		Unfiltered	Filtered
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc. Q	conc. Q
Aluminum	NC	346		ND		360		ND		470	ND
Antimony	3	ND		ND		ND		ND		ND	ND
Arsenic	25	ND		ND		ND		ND		ND	ND
Barium	1,000	19.1	B	18.1	B	28.9	B	27.9	B	ND	ND
Beryllium	3	ND		ND		ND		ND		ND	ND
Cadmium	5	***6.6***		4.6	B	3.0	B	2.8	B	4.7	3.5
Calcium	NC	16,900		16,800		28,600		29,400		29,000	27,000
Chromium	50	***59.6***		32.6		***118***		***103***		***140***	***95.0***
Cobalt	NC	ND		ND		ND		ND		ND	ND
Copper	200	45.5		11.7	B	14.2	B	6.5	B	ND	ND
Iron	300	***462***		ND		***414***		45.4	B	***650***	ND
Lead	25	14.1		ND		ND		ND		8.5	ND
Magnesium	35,000	2710		2,760		5,100		5,180		ND	ND
Manganese	300	11.8	B	ND		ND		ND		ND	ND
Mercury	0.7	ND		ND		ND		ND		ND	ND
Nickel	100	6.7	B	4.3	B	3.8	B	3.4	B	ND	ND
Potassium	NC	1,950		1,770		2,560	E	2,480		ND	ND
Selenium	10	ND		ND		ND		ND		ND	ND
Silver	50	ND		ND		ND		ND		ND	ND
Sodium	20,000	12,400		13,200		***30,800***		***31,000***		***38,000***	***35,000***
Thallium	0.50	ND		ND		ND		ND		ND	ND
Vanadium	NC	1.4	B	ND		1.1	B	ND		ND	ND
Zinc	2,000	54.9		40.4	B	19.6	B	19.3	B	ND	ND

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
E - Estimated value due to interference
N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID	Class GA	LMW-3	LMW-3	LMW-3F	LMW-3F	LMW-3F	LMW-3F
Laboratory ID	Ground	AC83866-003	AC83866-004	AC91321-006	AC91321-007	AD00074-003	AD00074-004
Sample Date	Water	3/18/15	3/18/15	5/11/16	5/11/16	9/13/17	9/13/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	1,400	ND	330	ND	240	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	ND	ND	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	4.2	2.4	***7.9***	***5.8***	***9.6***	***8.5***
Calcium	NC	16,000	16000	26,000	25,000	23,000	23,000
Chromium	50	***170***	***61.0***	***97.0***	ND	***67.0***	ND
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***1,800***	ND	***700***	ND	***350***	ND
Lead	25	18.0	ND	7.2	ND	3.9	ND
Magnesium	35,000	ND	ND	ND	ND	ND	ND
Manganese	300	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	***24,000***	***26,000***	***26,000***	***25,000***	***32,000***	***33,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	61.0	ND	ND	ND	ND	ND

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
E - Estimated value due to interference
N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID	Class GA	LMW-4	LMW-4	LMW-4	LMW-4F	LMW-4	LMW-4F
Laboratory ID	Ground	K0943-15	K0943-16	L1807-14	L1808-14	AC75576-003	AC75576-004
Sample Date	Water	5/26/11	5/26/11	8/23/12	8/23/12	11/4/13	11/4/13
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	2,560	ND	1,980	1,130	310	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	4.8 B	ND	6.4 B	ND	ND	ND
Barium	1,000	27.1 B	13.2 B	22.8 B	21.6 B	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	***54.2***	***19.8***	***28.2***	***27.3***	***26.0***	***21.0***
Calcium	NC	14,200	12,300	18,700	19,600	33,000	30,000
Chromium	50	***176***	***142***	***74.9***	***58.7***	ND	ND
Cobalt	NC	3.3 B	2.6 B	0.73 B	ND	ND	ND
Copper	200	137	43.5	69.7	58.9	ND	ND
Iron	300	***2,660***	109 B	***2,000***	***1,110***	***320***	ND
Lead	25	***43.2***	ND	15.5	9.8 B	ND	ND
Magnesium	35,000	1,710	1,270	2,770	2,870	ND	ND
Manganese	300	47.1 B	12.3 B	18.4 B	14.4 B	ND	ND
Mercury	0.7	0.036 B	ND	ND	ND	ND	ND
Nickel	100	43.5 B	12.8 B	17.5 B	15.8 B	ND	ND
Potassium	NC	6,600	6,790	2,340 E	2,460	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	***26,100***	***29,100***	13,400	14,400	***21,000***	***21,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	7.0 B	1.2 B	4.9 B	3.2 B	ND	ND
Zinc	2,000	630	109	257	220	160	130

Notes:
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N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-4		MW-4		MW-4		MW-4	
Sample ID	Class GA	LMW-4		LMW-4F		LMW-4		LMW-4F	
Laboratory ID	Ground	AC83866-005		AC83866-006		AC91321-010		AC91321-011	
Sample Date	Water	3/18/15		3/18/15		5/11/16		5/11/16	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered	
		conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	2,200		ND		ND		ND	
Antimony	3	ND		ND		ND		ND	
Arsenic	25	ND		ND		2.1		ND	
Barium	1,000	ND		ND		ND		ND	
Beryllium	3	ND		ND		ND		ND	
Cadmium	5	***20.0***		***11.0***		***24.0***		***23.0***	
Calcium	NC	8,400		8,300		26,000		26,000	
Chromium	50	***53.0***		ND		ND		ND	
Cobalt	NC	ND		ND		ND		ND	
Copper	200	60.0		ND		ND		ND	
Iron	300	***2,200***		ND		ND		ND	
Lead	25	22.0		ND		ND		ND	
Magnesium	35,000	ND		ND		ND		ND	
Manganese	300	ND		ND		ND		ND	
Mercury	0.7	ND		ND		ND		ND	
Nickel	100	ND		ND		ND		ND	
Potassium	NC	ND		ND		ND		ND	
Selenium	10	ND		ND		ND		ND	
Silver	50	ND		ND		ND		ND	
Sodium	20,000	ND		ND		***26,000***		***26,000***	
Thallium	0.50	ND		ND		ND		ND	
Vanadium	NC	ND		ND		ND		ND	
Zinc	2,000	220		97.0		120		110	

Sample Location	NYSDEC	MW-4		MW-4	
Sample ID	Class GA	LMW-4		LMW-4F	
Laboratory ID	Ground	AD00074-005		AD00074-006	
Sample Date	Water	9/13/17		9/13/17	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered	
		conc.	Q	conc.	Q
Aluminum	NC	360		ND	
Antimony	3	ND		ND	
Arsenic	25	ND		ND	
Barium	1,000	ND		ND	
Beryllium	3	ND		ND	
Cadmium	5	***95.0***		***80.0***	
Calcium	NC	24,000		23,000	
Chromium	50	***110***		***90.0***	
Cobalt	NC	ND		ND	
Copper	200	ND		ND	
Iron	300	***430***		ND	
Lead	25	4.3		ND	
Magnesium	35,000	ND		ND	
Manganese	300	ND		ND	
Mercury	0.7	ND		ND	
Nickel	100	ND		ND	
Potassium	NC	ND		5,000	
Selenium	10	ND		ND	
Silver	50	ND		ND	
Sodium	20,000	8,900	J	12,000	J
Thallium	0.50	ND		ND	
Vanadium	NC	ND		ND	
Zinc	2,000	180		140	

Notes:
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BOLD/Italics - Exceeds criterion
Source Area Wells
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Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sample ID	Class GA	LMW-5	LMW-5	LMW-5	LMW-5	LMW-5	LMW-5	LMW-5	LMW-5F	LMW-5	LMW-5F
Laboratory ID	Ground	E0833-01A	F1192-04A	G2136-07A	J0429-01A	K0919-02	K0919-01	L1807-01	L1808-01	AC75576-009	AC75576-010
Sample Date	Water	6/12/06	8/23/07	11/14/08	3/8/10	5/23/11	5/23/11	8/20/12	8/20/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	238	157 B	ND	87.5 BE	ND	ND	245	157 B	ND	ND
Antimony	3	***3.7*** B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	2.2 B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	49.3 B	50.0 B	45.7 B	49.4 B	9 B	8.3 B	56.9 B	60.4 B	ND	ND
Beryllium	3	ND	ND	ND	0.089 B	ND	ND	ND	ND	ND	ND
Cadmium	5	0.13 B	0.51 B	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NC	19,000	15,000	16,900	14,100	6,280	5400	17,800	18,600	16,000	18,000
Chromium	50	18.2 B	42.2	7.3 B	29.0	1.8 B	0.88 B	1.7 B	1.5 B	ND	ND
Cobalt	NC	0.67 B	1.4 B	ND	ND	ND	ND	ND	ND	ND	ND
Copper	200	23.8 B	10.9 B	ND	ND	ND	ND	ND	ND	ND	ND
Iron	300	198 B	122 B	ND	107 BN	151 BN	54.3 BN	52.4 B	ND	ND	ND
Lead	25	1.3 B	3.4 B	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	35,000	2,040 E	1,870	2,040	1,830	2,370	2,140	3,210	3,390	ND	ND
Manganese	300	15.1 B	13.7 B	6.8 B	16.5 B	10.4 B	ND	68.2	67.4	ND	ND
Mercury	0.7	ND	ND	ND	0.056 B	ND	ND	ND	ND	ND	ND
Nickel	100	3.3 B	1.1 B	ND	1.2 B	2.5 B	1.3 B	2.3 B	2.9 B	ND	ND
Potassium	NC	4,330	4,500	4,380	4,740	627 B	613 B	5,410 E	5,440	ND	ND
Selenium	10	ND	7.4 B	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	4.0 B	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	4,460	7,800	7,570	6,570	8,000	7,420	18,100	19,000	9,100	11,000
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.59 B	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2,000	29.1 B	18.4 B	13.7 B	15.2 B	27.9 B	24.5 B	10.5 B	10.3 B	ND	ND

Notes:
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Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-5		MW-5		MW-5		MW-5	
Sample ID	Class GA	LMW-5		LMW-5F		LMW-5		LMW-5F	
Laboratory ID	Ground	AC83866-007		AC83866-008		AC91268-015		AC91268-016	
Sample Date	Water	3/19/15		3/19/15		5/10/16		5/10/16	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered	
		conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	500		ND		210		ND	
Antimony	3	ND		ND		ND		ND	
Arsenic	25	ND		ND		ND		ND	
Barium	1,000	ND		ND		61.0		68.0	
Beryllium	3	ND		ND		ND		ND	
Cadmium	5	ND		ND		ND		ND	
Calcium	NC	16,000		17,000		18,000		20,000	
Chromium	50	ND		ND		ND		ND	
Cobalt	NC	ND		ND		ND		ND	
Copper	200	ND		ND		ND		ND	
Iron	300	ND		ND		ND		ND	
Lead	25	ND		ND		ND		ND	
Magnesium	35,000	ND		ND		ND		ND	
Manganese	300	ND		ND		ND		ND	
Mercury	0.7	ND		ND		ND		ND	
Nickel	100	ND		ND		ND		ND	
Potassium	NC	ND		ND		ND		ND	
Selenium	10	ND		ND		ND		ND	
Silver	50	ND		ND		ND		ND	
Sodium	20,000	14,000		14,000		***21,000***		***23,000***	
Thallium	0.50	ND		ND		ND		ND	
Vanadium	NC	ND		ND		ND		ND	
Zinc	2,000	ND		ND		ND		ND	

Sample Location	NYSDEC	MW-5		MW-5	
Sample ID	Class GA	LMW-5		LMW-5F	
Laboratory ID	Ground	AD00074-007		AD00074-010	
Sample Date	Water	9/13/17		9/13/17	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered	
		conc.	Q	conc.	Q
Aluminum	NC	220		ND	
Antimony	3	ND		ND	
Arsenic	25	ND		ND	
Barium	1,000	ND		ND	
Beryllium	3	ND		ND	
Cadmium	5	ND		ND	
Calcium	NC	17,000		16,000	
Chromium	50	ND		ND	
Cobalt	NC	ND		ND	
Copper	200	ND		ND	
Iron	300	ND		ND	
Lead	25	ND		ND	
Magnesium	35,000	ND		ND	
Manganese	300	ND		ND	
Mercury	0.7	ND		ND	
Nickel	100	ND		ND	
Potassium	NC	ND		ND	
Selenium	10	ND		ND	
Silver	50	ND		ND	
Sodium	20,000	6,800		6,900	
Thallium	0.50	ND		ND	
Vanadium	NC	ND		ND	
Zinc	2,000	ND		ND	

Notes:
All values in µg/L
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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
Sample ID	Class GA	LMW-6	LMW-6	LMW-6	LMW-6	LMW-6	LMW-6	LMW-6	LMW-6F	LMW-6	LMW-6F
Laboratory ID	Ground	E0833-02A	F1192-09A	G2136-06A	J0429-03A	K0919-04	K0919-03	L1807-03	L1808-03	AC75576-011	AC75576-012
Sample Date	Water	6/12/06	8/24/07	11/14/08	3/8/10	5/23/11	5/23/11	8/20/12	8/20/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	398	ND	50.2 BE	ND	ND	488	ND	ND	ND
Antimony	3	***3.1*** B	***8.0 B***	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	24.9 B	29.6 B	15.7 B	11.3 B	34.4 B	33.9 B	14.4 B	2.7 B	ND	ND
Beryllium	3	ND	ND	ND	0.062 B	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	***12.6***	0.55 B	0.62 B	ND	ND	ND	ND	ND	ND
Calcium	NC	9,880	10,000	8,300	6,120	19,500	20,000	7,700	7,750	5,800	6,100
Chromium	50	0.79 B	28.7	ND	1.9 B	15.7 B	14.7 B	2.1 B	ND	ND	ND
Cobalt	NC	0.31 B	2.2 B	ND	ND	ND	ND	0.86 B	ND	ND	ND
Copper	200	15.6 B	31.3	ND	5.6 B	ND	ND	4.0 B	ND	ND	ND
Iron	300	45.2 B	***3,120***	147 B	137 BN	ND	ND	***338***	39.8 B	ND	ND
Lead	25	ND	15.8	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	35,000	2,980 E	2,630	2,590	1,970	2,190	2,240	3,180	3,180	ND	ND
Manganese	300	5.9 B	60.9	40.8 B	11.4 B	ND	ND	21.8 B	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	3.6 B	12.3 B	2.2 B	1.9 B	ND	ND	2.4 B	2.0 B	ND	ND
Potassium	NC	759 B	1,390	2,060	1,180	3,500	3,530	753 B	552 B	ND	ND
Selenium	10	1.6 B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	10,100	9,950	11,600	7,660	7,760	7,890	10,000	10,300	7,600	7,700
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	2.0 B	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2,000	24.8 B	118	21.9 B	25.4 B	16.6 B	18.8 B	12.4 B	7.9 B	ND	ND

Notes:
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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-6		MW-6		MW-6		MW-6		MW-6		MW-6	
Sample ID	Class GA	LMW-6		LMW-6F		LMW-6		LMW-6F		LMW-6		LMW-6F	
Laboratory ID	Ground	AC83866-009		AC83866-010		AC91268-017		AC91268-018		AD00074-013		AD00074-014	
Sample Date	Water	3/19/15		3/19/15		5/10/16		5/10/16		9/13/17		9/13/17	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered		Unfiltered		Filtered	
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	ND		ND		800		ND		ND		ND	
Antimony	3	ND		ND		ND		ND		ND		ND	
Arsenic	25	ND		ND		ND		ND		ND		ND	
Barium	1,000	ND		ND		ND		ND		ND		ND	
Beryllium	3	ND		ND		ND		ND		ND		ND	
Cadmium	5	ND		ND		ND		ND		ND		ND	
Calcium	NC	8,300		7,900		8,800		7,900		7,800		7,600	
Chromium	50	ND		ND		ND		ND		ND		ND	
Cobalt	NC	ND		ND		ND		ND		ND		ND	
Copper	200	ND		ND		ND		ND		ND		ND	
Iron	300	ND		ND		***990***		ND		ND		ND	
Lead	25	ND		ND		3.1		ND		ND		ND	
Magnesium	35,000	ND		ND		ND		ND		ND		ND	
Manganese	300	ND		ND		ND		ND		ND		ND	
Mercury	0.7	ND		ND		ND		ND		ND		ND	
Nickel	100	ND		ND		ND		ND		ND		ND	
Potassium	NC	ND		ND		ND		ND		ND		ND	
Selenium	10	ND		ND		ND		ND		ND		ND	
Silver	50	ND		ND		ND		ND		ND		ND	
Sodium	20,000	8,600		8,400		8,700		8,800		9,000		9,300	
Thallium	0.50	ND		ND		ND		ND		ND		ND	
Vanadium	NC	ND		ND		ND		ND		ND		ND	
Zinc	2,000	ND		ND		ND		ND		ND		ND	

Notes:
All values in µg/L
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ND - Not Detected
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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18
Sample ID	Class GA	LMW-18	LMW-18	LMW-18	LMW-18	LMW-18	LMW-18	LMW-18	LMW-18F	LMW-18	LMW-18F
Laboratory ID	Ground	E0868-14A	F1192-08A	G2136-02A	J0429-06A	K0919-10	K0919-09	L1807-04	L1808-04	AC75576-013	AC75576-014
Sample Date	Water	6/22/06	8/24/07	11/13/08	3/10/10	5/24/11	5/24/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	135 B	252	196 B	716 E	193 B	ND	ND	164 B	ND	ND
Antimony	3	ND	ND	***9.0*** B	***5.2*** B	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	74.8 B	92.5 B	86.4 B	103 B	101 B	104 B	61.3 B	64.8 B	62.0	61.0
Beryllium	3	ND	ND	ND	0.12 B	ND	ND	ND	ND	ND	ND
Cadmium	5	0.33 B	1.3 B	0.92 B	0.86 B	3.0 B	2.9 B	ND	ND	ND	ND
Calcium	NC	12,800	15,500	13,500	18,900	21,100	21,900	15,800	15,700	19,000	20,000
Chromium	50	3.3 B	2.1 B	5.4 B	6.5 B	3.1 B	2.3 B	1.9 B	3.1 B	ND	ND
Cobalt	NC	0.48 B	1.3 B	ND	1.0 B	ND	ND	ND	ND	ND	ND
Copper	200	ND	8.1 B	11.0 B	9.8 B	6.9 B	ND	ND	ND	ND	ND
Iron	300	212	***308***	***307***	***731*** N	***327*** N	ND	ND	277	ND	ND
Lead	25	ND	3.0 B	2.5 B	3.9 B	ND	ND	ND	ND	ND	ND
Magnesium	35,000	5,440	5,430	4,960	4,460	4,380	4,560	3,720	3,650	ND	ND
Manganese	300	169	***547***	122	***312***	***521***	***421***	39.1 B	***539***	***1,200***	ND
Mercury	0.7	ND	ND	ND	0.057 B	ND	ND	ND	ND	ND	ND
Nickel	100	1.4 B	3.1 B	3.2 B	6.5 B	3.4 B	2.4 B	ND	1.5 B	ND	ND
Potassium	NC	10,800	7,290	10,200	13,500	11,500	12,500	9,220 E	8,720	8,200	7,800
Selenium	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	4.0 B	1.6 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***30,000***	***26,700***	***29,600***	***30,000***	***28,400***	***30,200***	***26,600***	***26,000***	***25,000***	***26,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.66 B	ND	0.63 B	ND	ND	ND	ND	ND	ND
Zinc	2,000	25.0 B	34.8 B	86.7	57.8	37.2 B	33.8 B	16.0 B	8.0 B	ND	ND

Notes:
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NC - No NYSDEC criterion
ND - Not Detected
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N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
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Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-18		MW-18		MW-18	
Sample ID	Class GA	LMW-18	LMW-18F	LMW-18	LMW-18F	LMW-18	LMW-18F
Laboratory ID	Ground	AC83866-019	AC83866-020	AC91268-019	AC91268-020	AD00074-024	AD00074-025
Sample Date	Water	3/19/15	3/19/15	5/10/16	5/10/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	ND	ND	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	86.0	76.0	87.0	89.0
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	ND	ND	ND	ND	ND
Calcium	NC	18,000	16,000	22,000	21,000	20,000	20,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	ND	ND	ND	ND	ND	ND
Lead	25	ND	ND	ND	ND	ND	ND
Magnesium	35,000	ND	ND	5,400	5,200	5,300	5,600
Manganese	300	***950***	ND	***1,000***	***750***	***1,300***	***890***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	5,500	5,800
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	19,000	18,000	***25,000***	***24,000***	***24,000***	***25,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	ND	ND	ND	ND

Notes:
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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample ID	Class GA	LMW-19	LMW-19	LMW-19	LMW-19	LMW-19	LMW-19	LMW-19	LMW-19F	LMW-19	LMW-19F
Laboratory ID	Ground	E0868-15A	F1192-07A	G2136-01A	J0429-07A	K0919-12	K0919-11	L1807-05	L1808-05	AC75576-015	AC75576-016
Sample Date	Water	6/22/06	8/24/07	11/13/08	3/10/10	5/24/11	5/24/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc.	conc. Q
Aluminum	NC	53.4 B	74.9 B	ND	69.9 BE	ND	ND	ND	ND	ND	ND
Antimony	3	ND	***6.7 B***	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	14.2 B	21.5 B	20.0 B	18.7 B	13.0 B	12.6 B	11.5 B	9.5 B	ND	ND
Beryllium	3	ND	ND	ND	0.046 B	ND	ND	ND	ND	ND	ND
Cadmium	5	1.1 B	***8.0***	ND	2.7 B	ND	2.4 B	ND	ND	ND	ND
Calcium	NC	9,900	13,000	9,700	11,500	11,600	11,700	10,600	10,100	11,000	11,000
Chromium	50	1 B	2.0 B	ND	1.8 B	0.94 B	ND	0.81 B	ND	ND	ND
Cobalt	NC	ND	1.2 B	ND	ND	ND	ND	ND	ND	ND	ND
Copper	200	ND	11.7 B	ND	ND	ND	ND	ND	ND	ND	ND
Iron	300	54.2 B	221	ND	234 N	40.1 BN	ND	32.8 B	ND	ND	ND
Lead	25	ND	4.1 B	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	35,000	3,180	4,600	3,970	4,350	4,460	4,480	4,130	3,920	ND	ND
Manganese	300	3.5 B	9.3 B	14.9 B	8.0 B	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	ND	2.9 B	ND	0.96 B	ND	ND	ND	ND	ND	ND
Potassium	NC	816 B	949 B	947 B	1,070	993 B	1,120	890 B	867 B	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.3 B	1.1 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	10,200	14,400	13,400	14,900	14,600	14,600	14,500	13,700	14,000	14,000
Thallium	0.50	ND	***2.9 B***	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2,000	42.8 B	48.1 B	30.5 B	47.0 B	28.0 B	28.2 B	ND	ND	ND	ND

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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample ID	Class GA	LMW-19	LMW-19F	LMW-19	LMW-19F	LMW-19	LMW-19F
Laboratory ID	Ground	AC83866-011	AC83866-014	AC91268-021	AC91268-022	AD00074-022	AD00074-023
Sample Date	Water	3/19/15	3/19/15	5/10/16	5/10/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc.	conc. Q	conc.	conc. Q	conc.	conc. Q
Aluminum	NC	ND	ND	460	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	ND	ND	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	ND	ND	ND	ND	ND
Calcium	NC	15,000	13,000	16,000	14,000	13,000	13,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	ND	ND	***730***	ND	ND	ND
Lead	25	ND	ND	ND	ND	ND	ND
Magnesium	35,000	5,100	ND	6,000	ND	ND	ND
Manganese	300	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	17,000	16,000	19,000	16,000	15,000	16,000
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	ND	ND	ND	ND

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LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
Sample ID	Class GA	LMW-10	LMW-10	LMW-10	LMW-10F	LMW-10	LMW-10F
Laboratory ID	Ground	K0943-03	K0943-04	L1807-10	L1808-10	AC75576-005	AC75576-006
Sample Date	Water	5/26/11	5/26/11	8/23/12	8/23/12	11/4/13	11/4/13
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	101 B	ND	159 B	ND	210	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	35.0 B	32.5 B	28.7 B	28.1 B	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	***10.3***	***11.3***	***36.1***	***34.9***	***49.0***	***50.0***
Calcium	NC	18,700	18,700	25,900	26,000	28,000	28,000
Chromium	50	***72.7***	***89.3***	***152***	***155***	***140***	***140***
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	245	ND	***391***	ND	***420***	ND
Lead	25	ND	ND	ND	ND	ND	ND
Magnesium	35,000	3,700	3,590	3,640	3,650	ND	ND
Manganese	300	16.8 B	ND	18.9 B	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	1.6 B	0.91 B	3.5 B	3.5 B	ND	ND
Potassium	NC	2,380	2,530	4,810 E	4,770	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	17,100	19,300	14,800	14,900	9,200	9,300
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	27.1 B	21.7 B	ND	ND	ND	ND

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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
Sample ID	Class GA	LMW-10	LMW-10F	LMW-10	LMW-10F	LMW-10	LMW-10F
Laboratory ID	Ground	AC83866-021	AC83866-022	AC91268-013	AC91268-014	AD00074-028	AD00074-029
Sample Date	Water	3/19/15	3/19/15	5/9/16	5/9/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	ND	ND	ND	770	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	ND	ND	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	***42.0***	***33.0***	***53.0***	***57.0***	***80.0***	***72.0***
Calcium	NC	22,000	20,000	22,000	22,000	18,000	18,000
Chromium	50	***92.0***	***83.0***	***130***	***130***	***82.0***	***81.0***
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***410***	ND	ND	ND	***2,200***	ND
Lead	25	ND	ND	ND	ND	11.0	ND
Magnesium	35,000	ND	ND	ND	ND	ND	ND
Manganese	300	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	12,000	13,000	18,000	18,000	11,000	11,000
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	ND	ND	ND	ND

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LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-16		MW-16		MW-16		MW-16		MW-16	
Sample ID	Class GA	LMW-16		LMW-16		LMW-16		LMW-16F		LMW-16	LMW-16F
Laboratory ID	Ground	K0943-09		K0943-10		L1807-11		L1808-11		AC75576-007	AC75576-008
Sample Date	Water	5/26/11		5/26/11		8/23/12		8/23/12		11/4/13	11/4/13
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered		Unfiltered	Filtered
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc. Q	conc. Q
Aluminum	NC	1,150		586		340		322		1,400	440
Antimony	3	ND		ND		ND		ND		ND	ND
Arsenic	25	ND		ND		ND		ND		ND	ND
Barium	1,000	299		351		339		339		230	240
Beryllium	3	2.0	B	1.8	B	0.7	B	0.72	B	1.5	1.2
Cadmium	5	***5.3***		4.9	B	4.2	B	4.3	B	4.4	3.9
Calcium	NC	9,240		9,890		12,100		11,700		9,800	10,000
Chromium	50	11.7	B	8.9	B	2.8	B	2.3	B	ND	ND
Cobalt	NC	ND		ND		ND		ND		ND	ND
Copper	200	9.4	B	11.3	B	66.6		63.0		ND	ND
Iron	300	115	B	ND		49.9	B	ND		***1,800***	ND
Lead	25	ND		ND		ND		ND		ND	ND
Magnesium	35,000	2,350		2,570		3,740		3,680		ND	ND
Manganese	300	***597***		***623***		***661***		***632***		***570***	***530***
Mercury	0.7	ND		ND		ND		ND		ND	ND
Nickel	100	13.9	B	14.1	B	11.8	B	12.0	B	ND	ND
Potassium	NC	4,930		4,880		6,010	E	5,860		5,100	ND
Selenium	10	ND		ND		ND		ND		ND	ND
Silver	50	ND		ND		ND		ND		ND	ND
Sodium	20,000	14,700		14,500		13,900		13,500		11,000	11,000
Thallium	0.50	ND		ND		ND		ND		ND	ND
Vanadium	NC	ND		ND		ND		ND		ND	ND
Zinc	2,000	67.5		69		34.2	B	33.2	B	ND	ND

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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16
Sample ID	Class GA	LMW-16	LMW-16F	LMW-16	LMW-16F	LMW-16	LMW-16F
Laboratory ID	Ground	AC83866-023	AC83866-024	AC91268-011	AC91268-012	AD00074-026	AD00074-027
Sample Date	Water	3/19/15	3/19/15	5/9/16	5/9/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	ND	1,200	370	1,200	360
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	180	160	180	160	140	140
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	3.9	3.4	4.2	4.1	***5.2***	***5.1***
Calcium	NC	14,000	12,000	11,000	10,000	10,000	11,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	ND	ND	58.0	50.0
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	ND	ND	***1,600***	ND	***1,800***	ND
Lead	25	ND	ND	ND	ND	ND	ND
Magnesium	35,000	ND	ND	ND	ND	ND	ND
Manganese	300	***380***	***350***	***700***	***580***	***900***	***880***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	10,000	10,000	11,000	11,000	11,000	11,000
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	ND	ND	ND	ND

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LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample ID	Class GA	LMW-12	LMW-12	LMW-12	LMW-12	LMW-12	LMW-12	LMW-12	LMW-12F	LMW-12	LMW-12F
Laboratory ID	Ground	E0833-03A	F1192-05A	G2415-01	J0429-04A	K0919-06	K0919-05	L1807-06	L1808-06	AC75576-023	AC75576-024
Sample Date	Water	6/14/06	8/24/07	12/23/08	3/9/10	5/24/11	5/24/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	445	9,070	2,260	33,600 E	12,000	ND	1,560	ND	810	ND
Antimony	3	1.8 B	**11.2** B	ND	***13.9 B***	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	3.3 B	ND	14.2 B	5.1 B	ND	ND	ND	ND	ND
Barium	1,000	45.2 B	75.4 B	60.5 B	188 B	88.9 B	28.1 B	44.6 B	48.2 B	ND	51.0
Beryllium	3	0.38 B	0.24 B	0.19 B	2.1 B	0.79 B	ND	ND	ND	ND	ND
Cadmium	5	0.52 B	**5.6**	***25.5***	***205***	***54.8***	4.5 B	4.4 B	***9.3***	2.9	ND
Calcium	NC	13,100	26,900	19,700	29,900	23,300	18,700	10,900	28,900	40,000	44,000
Chromium	50	2.5 B	37.5	18.9 B	***251***	***72.8***	ND	***103***	ND	ND	ND
Cobalt	NC	0.63 B	5.5 B	2.6 B	12.8 B	4.1 B	ND	ND	ND	ND	ND
Copper	200	14.9 B	85.3	63.5	***377***	147	ND	10.6 B	ND	ND	ND
Iron	300	***467***	**10,900**	***4,080***	***38,100*** N	***11,300*** N	***1,620*** N	***1,740***	39.0 B	***740***	ND
Lead	25	7.7 B	**106**	***83.7***	***553***	***230***	ND	19.4	ND	9.9	ND
Magnesium	35,000	3,710 E	6,830	4,330	10,900	5,760	3,310	2,540	5,600	6,400	7,200
Manganese	300	77.3	96.9	82.7	253	77.6	37.3 B	211	ND	ND	ND
Mercury	0.7	ND	ND	ND	0.54	ND	ND	ND	ND	ND	ND
Nickel	100	3.4 B	12.4 B	14.9 B	57.1	18.5 B	1.9 B	6.4 B	2.0 B	ND	ND
Potassium	NC	2,280	2,700	2,540	3,810	3,670	2,870	4,350 E	2,970	ND	ND
Selenium	10	2.6 B	ND	ND	***13.4 B***	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	7.6 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	11,700	13,400	***27,100***	***33,600***	8,250	7,660	15,400	16,200	12,000	14,000
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.77 B	28.8 B	8.6 B	89.7	33 B	1.5 B	3.9 B	ND	ND	ND
Zinc	2,000	26.1 B	246	220	1,280	488	52.1	32.5 B	55.9	ND	ND

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
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N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample ID	Class GA	LMW-12	LMW-12F	LMW-12	LMW-12F	LMW-12	LMW-12F
Laboratory ID	Ground	AC83866-025	AC83866-030	AC91268-001	AC91268-004	AD00074-030	AD00074-031
Sample Date	Water	3/20/15	3/20/15	5/9/16	5/9/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	870	ND	950	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	3.2	2.0	ND	ND
Barium	1,000	68.0	58.0	ND	ND	64.0	66.0
Beryllium	3	ND	ND	2.0	ND	ND	ND
Cadmium	5	***7.7***	4.4	***5.4***	ND	ND	ND
Calcium	NC	32,000	29,000	27,000	28,000	41,000	43,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	3.0	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***900***	ND	***980***	ND	ND	ND
Lead	25	6.8	ND	11.0	ND	ND	ND
Magnesium	35,000	7,600	6,700	ND	ND	8,600	9,100
Manganese	300	ND	ND	ND	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	***37,000***	***37,000***	***30,000***	***32,000***	***52,000***	***54,000***
Thallium	0.50	ND	ND	***2.5***	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	78.0	ND	65.0	ND	ND	ND

Notes:
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Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID	Class GA	LMW-14	LMW-14	LMW-14	LMW-14	LMW-14	LMW-14	LMW-14	LMW-14F	LMW-14	LMW-14F
Laboratory ID	Ground	E0833-04A	F1192-06A	G2415-02	J0429-05A	K0919-08	K0919-07	L1807-07	L1808-07	AC75576-021	AC75576-022
Sample Date	Water	6/14/06	8/24/07	12/23/08	3/9/10	5/24/11	5/24/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	780	314	7,090	4,830 E	652	ND	314	954	5,300	ND
Antimony	3	1.5 B	ND	ND	ND	ND	ND	ND	ND	2.2	ND
Arsenic	25	ND	ND	5.6 B	6.0 B	5.6 B	ND	ND	ND	3.2	ND
Barium	1,000	40.5 B	31.5 B	162 B	107 B	57.1 B	50.4 B	47.2 B	43.3 B	56.0	ND
Beryllium	3	ND	ND	0.38 B	0.28 B	ND	ND	ND	ND	ND	ND
Cadmium	5	4.9 B	1.5 B	***59.1***	***26***	***9.2***	***7.6***	***9.3***	3.7 B	***6.6***	2.4
Calcium	NC	13,100	12,900	35,800	18,700	18,300	18,400	28,100	10,900	11,000	12,000
Chromium	50	***95.8***	***248***	***69.6***	***68.6***	***51.3***	29.6	2.4 B	***88.2***	***170***	ND
Cobalt	NC	2.0 B	1.2 B	5.1 B	2.7 B	0.72 B	ND	ND	ND	ND	ND
Copper	200	22.2 B	8.9 B	110	42.8	13.6 B	ND	5.0 B	7.2 B	ND	ND
Iron	300	***728***	***389***	***9,320***	***14,000 N***	***1,780 N***	***1,430 N***	279	***1,180***	***6,000***	***930***
Lead	25	2.9 B	3.4 B	***221***	***76.5***	18.8	ND	ND	13.2	***53.0***	3.7
Magnesium	35,000	1,610 E	3,000	6,340	2,910	3,840	3,700	5,450	2,470	ND	ND
Manganese	300	35.3 B	21.2 B	231	186	260	235	ND	211	290	***300***
Mercury	0.7	ND	ND	ND	0.1 B	ND	ND	ND	ND	ND	ND
Nickel	100	7.5 B	4.4 B	53.2	18.3 B	11.8 B	8.7 B	1.1 B	6.1 B	ND	ND
Potassium	NC	3,320	4,140	7,090	1,670	4,430	4,570	2,990 E	4,170	5,000	ND
Selenium	10	ND	6.7 B	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.2 B	4.3 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***31,900***	***28,900***	**561,000**	**25,400**	**20,400**	**20,300**	15,400	15,400	10,000	12,000
Thallium	0.50	ND	***3.4 B***	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.58 B	0.51 B	22.5 B	12.6 B	2.4 B	ND	1.9 B	2.3 B	ND	ND
Zinc	2,000	40.1 B	27.5 B	520	279	99.1	70.1	56.3	25.5 B	94.0	ND

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BOLD/Italics - Exceeds criterion
Source Area Wells
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Groundwater Contaminant of Concern

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID	Class GA	LMW-14	LMW-14F	LMW-14	LMW-14F	LMW-14	LMW-14F
Laboratory ID	Ground	AC83866-031	AC83866-032	AC91268-009	AC91268-010	AD00074-032	AD00074-033
Sample Date	Water	3/20/15	3/20/15	5/9/16	5/9/16	9/14/17	9/14/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	1,500	ND	4,000	1,200	1,700	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	3.3	2.4	ND	ND
Barium	1,000	ND	ND	55.0	57.0	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	3.5	2.4	4.7	ND	***5.1***	4.0
Calcium	NC	9,700	8,900	7,500	11,000	9,500	8,800
Chromium	50	***74.0***	ND	***96.0***	***56.0***	***110***	***58.0***
Cobalt	NC	ND	ND	2.2	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***1,800***	ND	***4,900***	***1,700***	***2,600***	ND
Lead	25	14.0	ND	***32.0***	9.9	14.0	ND
Magnesium	35,000	ND	ND	ND	ND	ND	ND
Manganese	300	130	110	91	110	59.0	45.0
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	***110,000***	***100,000***	6,300	11,000	***21,000***	***21,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	77.0	ND	210.0	82.0	55.0	ND

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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
Sample ID	Class GA	LMW-20	LMW-20	LMW-20	LMW-20	LMW-20	LMW-20	LMW-20	LMW-20F	LMW-20	LMW-20F
Laboratory ID	Ground	E0833-05A	F1192-03A	G2136-04A	J0429-08A	K0943-05	K0943-06	L1807-09	L1808-09	AC75576-025	AC75576-026
Sample Date	Water	6/14/06	8/22/07	11/13/08	3/9/10	5/26/11	5/26/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc.	conc. Q
Aluminum	NC	223	299	81.6 B	404 E	303	ND	411	ND	ND	ND
Antimony	3	1.7 B	***9.5 B***	ND	***4.4 B***	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	38.9 B	57.8 B	48.8 B	35.0 B	27.0 B	25.4 B	42.1 B	40 B	ND	ND
Beryllium	3	ND	ND	ND	0.057 B	ND	ND	ND	ND	ND	ND
Cadmium	5	1 B	0.45 B	0.74 B	ND	ND	ND	ND	ND	ND	ND
Calcium	NC	13,200	20,600	4,420	9,050	7,700	7,870	17,400	16,900	19,000	18,000
Chromium	50	4.6 B	3.1 B	2.1 B	5.1 B	5.1 B	1.1 B	2.0 B	0.91 B	ND	ND
Cobalt	NC	0.92 B	2.5 B	ND	1.1 B	1.2 B	0.93 B	ND	ND	ND	ND
Copper	200	13.6 B	8.7 B	ND	5.7 B	6.0 B	ND	ND	ND	ND	ND
Iron	300	***1,710***	***624***	164 B	***1,370 N***	***879***	71.7 B	***398***	ND	ND	ND
Lead	25	1.5 B	3.7 B	ND	4.9 B	ND	ND	ND	ND	ND	ND
Magnesium	35,000	6,050 E	9,820	3,400	4,400	3,790	3,870	8,990	8,870	9,000	9,200
Manganese	300	27.8 B	60.5	35.0 B	27.1 B	17.5 B	ND	23.2 B	ND	ND	ND
Mercury	0.7	ND	ND	ND	0.064 B	ND	ND	ND	ND	ND	ND
Nickel	100	4.6 B	2.4 B	1.8 B	3.5 B	1.8 B	ND	ND	1.0 B	ND	ND
Potassium	NC	2,050	2,220	8,190	1,970	2,430	2,060	1,840 E	1,710	ND	ND
Selenium	10	1.1 B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	5.2 B	0.6 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***21,800***	***31,100***	***29,700***	***39,600***	***38,400***	***40,300***	***21,700***	***21,400***	***21,000***	***22,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.48 B	1.6 B	ND	1.2 B	ND	ND	ND	ND	ND	ND
Zinc	2,000	48.7 B	32.8 B	28.5 B	187	52.5	29.7 B	ND	ND	ND	ND

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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
Sample ID	Class GA	LMW-20	LMW-20F	LMW-20	LMW-20F	LMW-20	LMW-20F
Laboratory ID	Ground	AC83866-027	AC83866-028	AC91321-001	AC91321-003	AD00074-020	AD00074-021
Sample Date	Water	3/19/15	3/19/15	5/10/16	5/10/16	9/13/17	9/13/17
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc.	conc. Q	conc.	conc. Q	conc.	conc. Q
Aluminum	NC	2,000	ND	1,200	ND	550	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND
Barium	1,000	ND	ND	ND	ND	ND	ND
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	ND	ND	ND	ND	ND
Calcium	NC	16,000	13,000	16,000	14,000	15,000	15,000
Chromium	50	ND	ND	ND	ND	ND	ND
Cobalt	NC	ND	ND	ND	ND	ND	ND
Copper	200	ND	ND	ND	ND	ND	ND
Iron	300	***2,700***	ND	***7,600***	ND	***680***	ND
Lead	25	6.1	ND	5.2	ND	ND	ND
Magnesium	35,000	7,700	6,200	7,800	7,000	7,000	7,200
Manganese	300	64.0	ND	70.0	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	ND	ND	ND	ND	ND	ND
Potassium	NC	ND	ND	ND	ND	ND	ND
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND
Sodium	20,000	18,000	16,000	18,000	17,000	***20,000***	***20,000***
Thallium	0.50	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	ND	ND	ND
Zinc	2,000	ND	ND	1,500	ND	ND	ND

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LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
Sample ID	Class GA	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21	LMW-21F
Laboratory ID	Ground	E0833-06A	F1192-01A	G2136-05A	J0429-09A	K0943-07	K0943-08	L1807-08	L1808-08	AC75576-027	AC75576-028
Sample Date	Water	6/14/06	8/22/07	11/14/08	3/9/10	5/26/11	5/26/11	8/21/12	8/21/12	11/5/13	11/5/13
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	197 B	457	793 E	319	ND	746	ND	410	ND
Antimony	3	1.9 B	***6.7 B***	ND	ND	ND	ND	ND	***11.9 B***	ND	ND
Arsenic	25	2.2 B	ND	ND	ND	4.3 B	ND	ND	ND	ND	ND
Barium	1,000	79.3 B	60.9 B	58.2 B	119 B	78.8 B	76.2 B	92.6 B	85.9 B	67.0	67.0
Beryllium	3	ND	ND	ND	0.16 B	ND	ND	ND	ND	ND	ND
Cadmium	5	ND	1.5 B	4.8 B	1.1 B	1.2 B	ND	ND	ND	ND	ND
Calcium	NC	7,520	5,190	11,900	12,600	17,000	16,900	14,300	14,200	14,000	14,000
Chromium	50	0.94 B	3.0 B	2.3 B	9.0 B	6.2 B	3.3 B	13.2 B	10.6 B	ND	ND
Cobalt	NC	0.48 B	1.5 B	ND	1.5 B	ND	ND	ND	ND	ND	ND
Copper	200	ND	13.7 B	6.6 B	8.2 B	8.5 B	ND	3.9 B	ND	ND	ND
Iron	300	31.4 B	***503***	198 B	***1,840 N***	***694***	32 B	***1,330***	ND	***760***	ND
Lead	25	ND	4.5 B	2.6 B	8.2 B	ND	ND	ND	ND	ND	ND
Magnesium	35,000	5,440 E	3,320	2,960	8,380	6,960	7,240	6,050	5,820	6,100	6,100
Manganese	300	26.4 B	51.8	***627***	57.7	36.1 B	19.7 B	96.1	56.7	100	64.0
Mercury	0.7	ND	ND	ND	0.058 B	ND	ND	ND	ND	ND	ND
Nickel	100	1.9 B	2.4 B	6.9 B	4.9 B	3.3 B	1.3 B	2.8 B	2.4 B	ND	ND
Potassium	NC	5,670	6,350	6,250	12,700	12,500	9,270	7,500 E	7,050	6,200	5,800
Selenium	10	4.1 B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***24,500***	***27,200***	19,200	***31,800***	***24,300***	***21,700***	19,700	19,400	17,000	18,000
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.063 B	ND	2.1 B	1.5 B	ND	1.8 B	ND	ND	ND
Zinc	2,000	14.2 B	40.5 B	69.1	67.6	65.1	30.5 B	15.5 B	6.0 B	ND	ND

Notes:
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Sentinel Wells
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TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006 THROUGH SEPTEMBER 2017 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-21		MW-21		MW-21		MW-21	
Sample ID	Class GA	LMW-21		LMW-21F		LMW-21		LMW-21F	
Laboratory ID	Ground	AC83866-029		AC83866-026		AC91321-002		AC91321-004	
Sample Date	Water	3/19/15		3/19/15		5/10/16		5/10/16	
Filtered/Unfiltered	Criteria	Unfiltered		Filtered		Unfiltered		Filtered	
		conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	ND		ND		1,400		ND	
Antimony	3	ND		ND		ND		ND	
Arsenic	25	ND		ND		2.1		ND	
Barium	1,000	56.0		56.0		73.0		68.0	
Beryllium	3	ND		ND		ND		ND	
Cadmium	5	ND		ND		ND		ND	
Calcium	NC	12,000		12,000		12,000		13,000	
Chromium	50	ND		ND		ND		ND	
Cobalt	NC	ND		ND		ND		ND	
Copper	200	ND		ND		ND		ND	
Iron	300	ND		ND		***2,500***		ND	
Lead	25	ND		ND		4.2		ND	
Magnesium	35,000	ND		ND		6,400		6,700	
Manganese	300	ND		ND		96.0		63.0	
Mercury	0.7	ND		ND		ND		ND	
Nickel	100	ND		ND		ND		ND	
Potassium	NC	ND		ND		ND		ND	
Selenium	10	ND		ND		ND		ND	
Silver	50	ND		ND		ND		ND	
Sodium	20,000	15,000		15,000		17,000		19,000	
Thallium	0.50	ND		ND		ND		ND	
Vanadium	NC	ND		ND		ND		ND	
Zinc	2,000	ND		ND		ND		ND	

Sample Location	MW-21		MW-21	
Sample ID	LMW-21		LMW-21F	
Laboratory ID	AD00074-018		AD00074-019	
Sample Date	9/13/17		9/13/17	
Filtered/Unfiltered	Unfiltered		Filtered	
	conc.	Q	conc.	Q
Aluminum	1,500		ND	
Antimony	ND		ND	
Arsenic	ND		ND	
Barium	97.0		85.0	
Beryllium	ND		ND	
Cadmium	ND		ND	
Calcium	15,000		15,000	
Chromium	ND		ND	
Cobalt	ND		ND	
Copper	ND		ND	
Iron	***2,500***		***340***	
Lead	3.5		ND	
Magnesium	ND		ND	
Manganese	140		89.0	
Mercury	ND		ND	
Nickel	ND		ND	
Potassium	7,200		7,100	
Selenium	ND		ND	
Silver	ND		ND	
Sodium	***32,000***		***32,000***	
Thallium	ND		ND	
Vanadium	ND		ND	
Zinc	ND		ND	

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
E - Estimated value due to interference
N - Spike recovery outside control limits

BOLD/Italics - Exceeds criterion
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells
Groundwater Contaminant of Concern

TABLE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
COMPARISON OF FILTERED AND UNFILTERED METALS DATA IN GROUNDWATER

Sample Location	NYSDEC	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4
Sample ID	Class GA	LMW-2	LMW-2F		LMW-3	LMW-3F		LMW-4	LMW-4F	
Laboratory ID	Ground	AD00074-001	AD00074-002		AD00074-003	AD00074-004		AD00074-005	AD00074-006	
Sample Date	Water	9/13/17	9/13/17		9/13/17	9/13/17		9/13/17	9/13/17	
Filtered/Unfiltered	Criteria	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved
Aluminum	NC	ND	ND	NC	240	ND	NC	360	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Barium	1,000	ND	ND	NC	ND	ND	NC	ND	ND	NC
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	2.9	3.2	110.3%	***9.6***	***8.5***	88.5%	***95.0***	***80.0***	84.2%
Calcium	NC	32,000	34,000	106.3%	23,000	23,000	100.0%	24,000	23,000	95.8%
Chromium	50	ND	ND	NC	***67.0***	ND	NC	110.0	90	81.8%
Cobalt	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC	ND	ND	NC
Iron	300	ND	ND	NC	350	ND	NC	430	ND	NC
Lead	25	ND	ND	NC	3.9	ND	NC	4.3	ND	NC
Magnesium	35,000	5,500	5,800	105.5%	ND	ND	NC	ND	ND	NC
Manganese	300	ND	ND	NC	ND	ND	NC	ND	ND	NC
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC	ND	ND	NC
Potassium	NC	ND	ND	NC	ND	ND	NC	ND	5000	NC
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	25,000	26,000	104.0%	***32,000***	***33,000***	103.1%	8,900 J	12,000 J	134.8%
Thallium	0.50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	ND	ND	NC	180	140	77.8%
Turbidity (NTU)		3.2			2.5			0.0		

Notes:
E - Estimated value due to interference
B - Estimated value
ND - Not Detected
BOLD/Italics - Exceeds criterion

All values except turbidity are in micrograms per liter (µg/L)
% Dissolved = filtered conc. / unfiltered conc.
NC - No NYSDEC criterion or Not Calculable
Groundwater Contaminant of Concern

TABLE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
COMPARISON OF FILTERED AND UNFILTERED METALS DATA IN GROUNDWATER

Sample Location	NYSDEC	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6	MW-18	MW-18	MW-18
Sample ID	Class GA	LMW-5	LMW-5F		LMW-6	LMW-6F		LMW-18	LMW-18F	
Laboratory ID	Ground	AD00074-007	AD00074-010		AD00074-013	AD00074-014		AD00074-024	AD00074-025	
Sample Date	Water	9/13/17	9/13/17		9/13/17	9/13/17		9/14/17	9/14/17	
Filtered/Unfiltered	Criteria	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved
Aluminum	NC	220	ND	NC	ND	ND	NC	ND	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Barium	1,000	ND	ND	NC	ND	ND	NC	87.0	89.0	102.3%
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	ND	ND	NC	ND	ND	NC
Calcium	NC	17,000	16,000	94.1%	7,800	7,600	97.4%	20,000	20,000	100.0%
Chromium	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cobalt	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC	ND	ND	NC
Iron	300	ND	ND	NC	***ND***	ND	NC	ND	ND	NC
Lead	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Magnesium	35,000	ND	ND	NC	ND	ND	NC	5,300	5,600	105.7%
Manganese	300	ND	ND	NC	ND	ND	NC	***1,300***	***890***	68%
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC	ND	ND	NC
Potassium	NC	ND	ND	NC	ND	ND	NC	5,500	5,800	105.5%
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	6,800	6,900	101.5%	9,000	9,300	103.3%	***24,000***	***25,000***	104.2%
Thallium	0.50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	ND	ND	NC	ND	ND	NC
Turbidity (NTU)		0.0			0.0			0.0		

Notes:
E - Estimated value due to interference
B - Estimated value
ND - Not Detected
BOLD/Italics - Exceeds criterion

All values except turbidity are in micrograms per liter (µg/L)
% Dissolved = filtered conc. / unfiltered conc.
NC - No NYSDEC criterion or Not Calculable
Groundwater Contaminant of Concern

TABLE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
COMPARISON OF FILTERED AND UNFILTERED METALS DATA IN GROUNDWATER

Sample Location	NYSDEC	MW-19	MW-19	MW-19	MW-10	MW-10	MW-10	MW-16	MW-16	MW-16
Sample ID	Class GA	LMW-19	LMW-19F		LMW-10	LMW-10F		LMW-16	LMW-16F	
Laboratory ID	Ground	AD00074-022	AD00074-023		AD00074-028	AD00074-029		AD00074-026	AD00074-027	
Sample Date	Water	9/14/17	9/14/17		9/14/17	9/14/17		9/14/17	9/14/17	
Filtered/Unfiltered	Criteria	Unfiltered conc.	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved
Aluminum	NC	ND	ND	NC	770	ND	NC	1,200	360	30.0%
Antimony	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Barium	1,000	ND	ND	NC	ND	ND	NC	140	140	100.0%
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	***80.0***	***72.0***	90.0%	***5.2***	***5.1***	98.1%
Calcium	NC	13,000	13,000	100.0%	18,000	18,000	100.0%	10,000	11,000	110.0%
Chromium	50	ND	ND	NC	***82.0***	***81.0***	98.8%	ND	ND	NC
Cobalt	NC	ND	ND	NC	ND	ND	NC	58.0	50.0	86.2%
Copper	200	ND	ND	NC	ND	ND	NC	ND	ND	NC
Iron	300	ND	ND	NC	***2,200***	ND	NC	***1,800***	ND	NC
Lead	25	ND	ND	NC	11	ND	NC	ND	ND	NC
Magnesium	35,000	ND	ND	NC	ND	ND	NC	ND	ND	NC
Manganese	300	ND	ND	NC	ND	ND	NC	***900***	***880***	97.8%
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC	ND	ND	NC
Potassium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	15,000	16,000	106.7%	11,000	11,000	100.0%	11,000	11,000	100.0%
Thallium	0.50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	ND	ND	NC	ND	ND	NC
Turbidity (NTU)		0.0			34.8			52.8		

Notes:
E - Estimated value due to interference
B - Estimated value
ND - Not Detected
BOLD/Italics - Exceeds criterion

All values except turbidity are in micrograms per liter (µg/L)
% Dissolved = filtered conc. / unfiltered conc.
NC - No NYSDEC criterion or Not Calculable
Groundwater Contaminant of Concern

TABLE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
COMPARISON OF FILTERED AND UNFILTERED METALS DATA IN GROUNDWATER

Sample Location	NYSDEC	MW-12	MW-12	MW-12	MW-14	MW-14	MW-14
Sample ID	Class GA	LMW-12	LMW-12F		LMW-14	LMW-14F	
Laboratory ID	Ground	AD00074-030	AD00074-031		AD00074-032	AD00074-033	
Sample Date	Water	9/14/17	9/14/17		9/14/17	9/14/17	
Filtered/Unfiltered	Criteria	Unfiltered conc. Q	filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved
Aluminum	NC	ND	ND	NC	1,700	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC
Barium	1,000	64.0	66.0	103.1%	ND	ND	NC
Beryllium	3	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	5.1	4.0	78.4%
Calcium	NC	41,000	43,000	104.9%	9,500	8,800	92.6%
Chromium	50	ND	ND	NC	***110***	***58.0***	53%
Cobalt	NC	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC
Iron	300	ND	ND	NC	***2,600***	ND	NC
Lead	25	ND	ND	NC	14.0	ND	NC
Magnesium	35,000	8,600	9,100	105.8%	ND	ND	NC
Manganese	300	ND	ND	NC	59.0	45.0	76.3%
Mercury	0.7	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC
Potassium	NC	ND	ND	NC	ND	ND	NC
Selenium	10	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC
Sodium	20,000	***52,000***	***54,000***	103.8%	***21,000***	***21,000***	100.0%
Thallium	0.50	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	55.0	ND	NC
Turbidity (NTU)		2.7			71.0		

Notes:
E - Estimated value due to interference
B - Estimated value
ND - Not Detected
BOLD/Italics - Exceeds criterion

All values except turbidity are in micrograms per liter (µg/L)
% Dissolved = filtered conc. / unfiltered conc.
NC - No NYSDEC criterion or Not Calculable
Groundwater Contaminant of Concern

TABLE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
COMPARISON OF FILTERED AND UNFILTERED METALS DATA IN GROUNDWATER

Sample Location	NYSDEC	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21
Sample ID	Class GA	LMW-20	LMW-20F		LMW-21	LMW-21F	
Laboratory ID	Ground	AD00074-020	AD00074-021		AD00074-018	AD00074-019	
Sample Date	Water	9/13/17	9/13/17		9/13/17	9/13/17	
Filtered/Unfiltered	Criteria	Unfiltered conc.	Filtered conc. Q	Percent Dissolved	Unfiltered conc. Q	Filtered conc. Q	Percent Dissolved
Aluminum	NC	550	ND	NC	1,500	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC
Barium	1,000	ND	ND	NC	97.0	85.0	87.6%
Beryllium	3	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	ND	ND	NC
Calcium	NC	15,000	15,000	100.0%	15,000	15,000	100.0%
Chromium	50	ND	ND	NC	ND	ND	NC
Cobalt	NC	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC
Iron	300	***680***	ND	NC	2,500	340	13.6%
Lead	25	ND	ND	NC	3.5	ND	NC
Magnesium	35,000	7,000	7,200	102.9%	ND	ND	NC
Manganese	300	ND	ND	NC	140	89.0	63.6%
Mercury	0.7	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC
Potassium	NC	ND	ND	NC	7,200	7,100	98.6%
Selenium	10	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC
Sodium	20,000	***20,000***	***20,000***	100.0%	***32,000***	***32,000***	100.0%
Thallium	0.50	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	ND	ND	NC
Turbidity (NTU)		25.5			49.3		

Notes:
E - Estimated value due to interference
B - Estimated value
ND - Not Detected
BOLD/Italics - Exceeds criterion

All values except turbidity are in micrograms per liter (µg/L)
% Dissolved = filtered conc. / unfiltered conc.
NC - No NYSDEC criterion or Not Calculable
Groundwater Contaminant of Concern

TABLE 5
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
SUMMARY OF 1,4-DIOXANE AND PERFLUORINATED COMPOUNDS IN GROUNDWATER

Sample Location		MW-2		MW-3		MW-4		MW-5		MW-6		MW-18	MW-19
Sample ID	EPA	LMW-2		LMW-3		LMW-4		LMW-5		LMW-6		LMW-18	LMW-19
Laboratory IDs	Health	AD01096-006		AD01096-007		AD01096-008		AD01096-009		AD01096-010		AD01096-004	AD01096-001
	Advisory	AD00074-001		AD00074-003		AD00074-005		AD00074-007		AD00074-013		AD00074-024	AD00074-022
Sample Dates	Limit	11/8/17		11/8/17		11/8/17		11/8/17		11/8/17		11/8/17	11/8/17
		9/13/17		9/13/17		9/13/17		9/13/17		9/13/17		9/14/17	9/14/17
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q		conc.
1,4-Dioxane	350	ND		ND		ND		ND		ND		ND	ND
6:2 FTS		ND		ND		ND		ND		ND		ND	ND
8:2 FTS		ND		ND		ND		ND		ND		ND	ND
NetFOSAA		ND		ND		ND		ND		ND		ND	ND
NMeFOSAA		ND		ND		ND		ND		ND		ND	ND
PFBA		3.19		3.1		5.26		3.86		0.66	J	4.76	0.635 J
PFBS		3.64		2.43		2.3		5.71		0.543	J	11.7	0.293 J
PFDA		ND		ND		1.36	J	0.486	J	ND		ND	ND
PFDoA		ND		ND		0.27	J	ND		ND		ND	ND
PFDS		ND		ND		ND		ND		ND		ND	ND
PFHpA		3.19		2.49		1.92		2.24		0.575	J	3.93	0.247 J
PFHpS		0.483	J	7.22		0.864	J	0.248	J	ND		ND	ND
PFHxA		4.5		4.48		4.06		3.77		1.61	J	11.4	1.11 J
PFHxS		2.07		3.8		2.64		3.02		1.28	J	4.71	0.666 J
PFNA		1.01	J	0.843	J	1.69	J	1.39	J	ND		ND	ND
PFOA	70	9.71		7.44		3.25		11.1		1.97		7.72	1.06 J
PFOS	70	15.8		***305***		23.9		29.6		0.642	J	1.88 J	ND
PFPeA		5.93		4.51		3.59		4.26		1.31	J	10.7	0.887 J
PFTreA		ND		0.249	J	ND		ND		ND		ND	ND
PFTriA		ND		0.316	J	0.212	J	ND		ND		ND	ND
PFuNA		ND		ND		0.819	J	ND		ND		ND	ND
Total PFOA & PFOS	70	25.51		***312.44***		27.15		40.7		2.612		9.6	1.06

Notes:
All values in ng/L
ND - Not Detected
U - Undetected (reported as ND)
J - Estimated concentration

Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells

TABLE 5
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 SAMPLING EVENT
SUMMARY OF 1,4-DIOXANE AND PERFLUORINATED COMPOUNDS IN GROUNDWATER

Sample Location		MW-10		MW-16		MW-12		MW-14		MW-20	MW-21	
Sample ID	EPA	LMW-10		LMW-16		LMW-12		LMW-14		LMW-20	LMW-21	
Laboratory IDs	Health	AD01096-011		AD01096-012		AD01096-015		AD01096-016		AD01096-013	AD01096-014	
	Advisory	AD00074-028		AD00074-026		AD00074-030		AD00074-032		AD00074-020	AD00074-018	
Sample Dates	Limit	11/8/17		11/8/17		11/8/17		11/8/17		11/8/17	11/8/17	
		9/14/17		9/14/17		9/14/17		9/14/17		9/14/17	9/13/17	
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	conc.	Q
1,4-Dioxane	350	ND		ND		ND		ND		ND	ND	
6:2 FTS		ND		ND		ND		1.74		ND	ND	
8:2 FTS		ND		ND		ND		ND		ND	ND	
NetFOSAA		ND		ND		ND		ND		ND	ND	
NMeFOSAA		ND		ND		ND		ND		ND	ND	
PFBA		5.85		3.86		3.36		ND		2.5	2.99	
PFBS		14.8		2.79		2.33		7.9		1.32	2.71	
PFDA		ND		ND		0.44	J	0.597	J	ND	ND	
PFDoA		ND		ND		ND		0.315	J	ND	ND	
PFDS		ND		ND		ND		ND		ND	ND	
PFHpA		4.05		3.17		4.26		1.98	J	1.76	2.27	
PFHpS		1.01	J	0.294	J	0.498	J	0.331	J	ND	0.237	J
PFHxA		4.98		4.86		10.5		3.07		3.54	4.07	
PFHxS		1.3	J	1.95	J	1.47	J	5.02		4.99	10.8	
PFNA		0.944	J	1.51	J	1.49	J	1.59	J	ND	0.408	J
PFOA	70	9.97		11.8		12.9		9.39		6.17	7.02	
PFOS	70	50.5		16.2		34.1		28.3		2.07	5.48	
PFPeA		4.11		5.63		10.7		3.1		3.05	3.77	
PFTreA		ND		ND		ND		0.363	J	ND	ND	
PFTriA		ND		ND		ND		0.295	J	ND	ND	
PFuNA		ND		ND		0.255	J	0.212	J	ND	ND	
Total PFOA & PFOS	70	60.47		28.0		47.0		37.69		8.24	12.5	

Notes:
All values in ng/L
ND - Not Detected
U - Undetected (reported as ND)
J - Estimated concentration

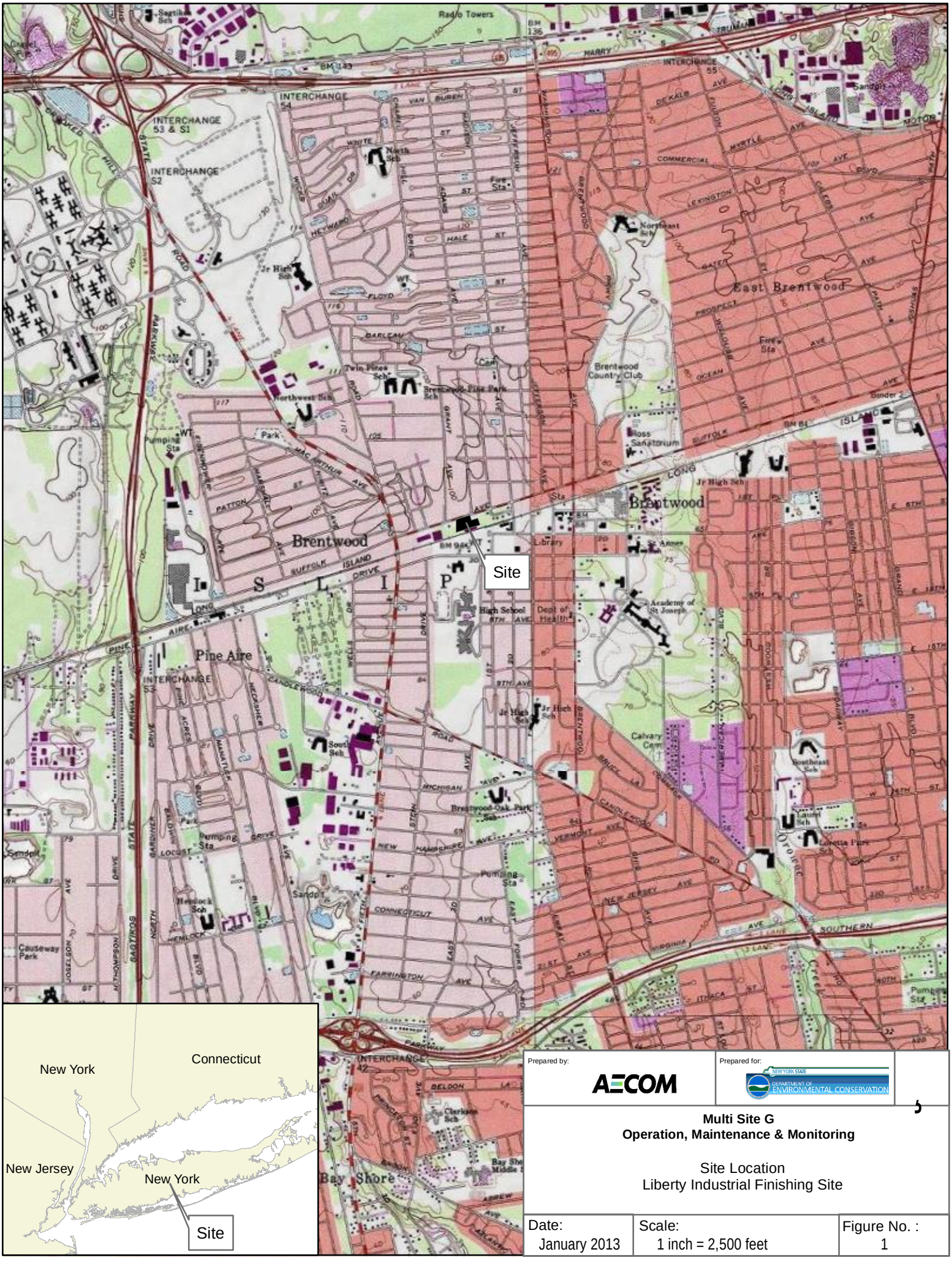
Source Area Wells
Side Gradient Wells
Downgradient Wells
Sentinel Wells

TABLE 6
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
SEPTEMBER 2017 (ROUND 10) SAMPLING EVENT
FIELD DUPLICATE DATA - TAL METALS IN GROUNDWATER

Sample Location	LMW-3	LMW-53	Precision	LMW-3	LMW-3	Precision
Sample ID	LMW-3	LMW-53	as	LMW-3F	LMW-53F	as
Laboratory ID	AD00074-003	AD00074-015	Relative	AD00074-004	AD00074-016	Relative
Sample Date	9/13/17	9/13/17	Percent	9/13/17	9/13/17	Percent
Filtered/Unfiltered	Unfiltered	Unfiltered	Difference	Filtered	Filtered	Difference
Metal	conc. Q	conc. Q	(RPD)	conc. Q	conc. Q	(RPD)
Aluminum	240	ND	NC	ND	ND	NC
Antimony	ND	ND	NC	ND	ND	NC
Arsenic	ND	ND	NC	ND	ND	NC
Barium	ND	ND	NC	ND	ND	NC
Beryllium	ND	ND	NC	ND	ND	NC
Cadmium	***9.6***	***9.5***	1.0%	8.5	8.1	4.8%
Calcium	23,000	23,000	0.0%	23,000	23,000	0.0%
Chromium	***67.0***	***66.0***	1.5%	ND	ND	NC
Cobalt	ND	ND	NC	ND	ND	NC
Copper	ND	ND	NC	ND	ND	NC
Iron	***350***	***330***	5.9%	ND	ND	NC
Lead	3.9	4.0	2.5%	ND	ND	NC
Magnesium	ND	ND	NC	ND	ND	NC
Manganese	ND	ND	NC	ND	ND	NC
Mercury	ND	ND	NC	ND	ND	NC
Nickel	ND	ND	NC	ND	ND	NC
Potassium	ND	ND	NC	ND	ND	NC
Selenium	ND	ND	NC	ND	ND	NC
Silver	ND	ND	NC	ND	ND	NC
Sodium	***32,000***	***32,000***	0.0%	***33,000***	***33,000***	0.0%
Thallium	ND	ND	NC	ND	ND	NC
Vanadium	ND	ND	NC	ND	ND	NC
Zinc	ND	ND	NC	ND	ND	NC

Notes:
All values in µg/L
NC - Not Calculable (analyte not detected in one or both analyses)
ND - Not Detected
Groundwater Contaminant of Concern

Figures



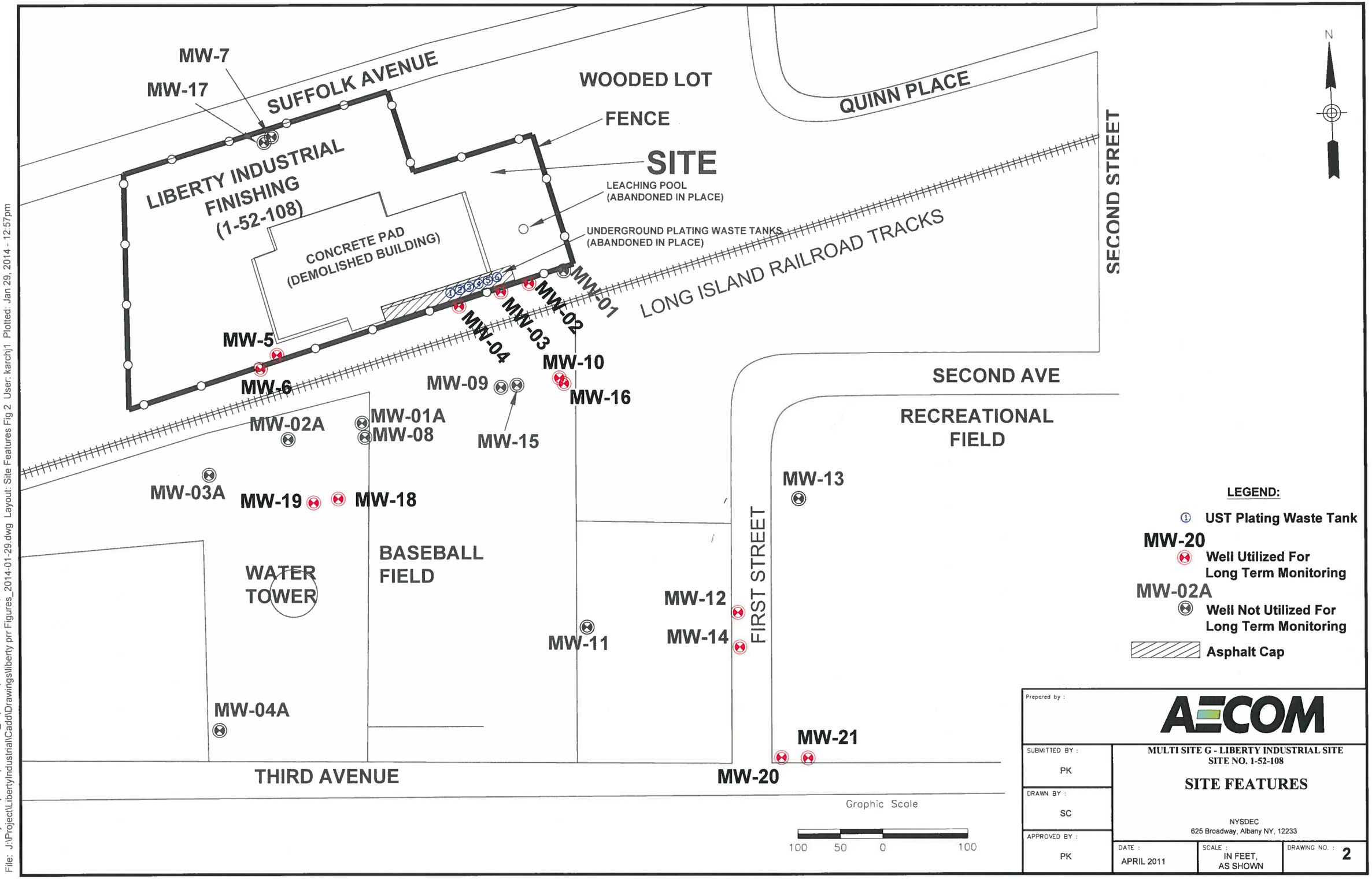
Prepared by: AECOM

Prepared for: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Multi Site G
Operation, Maintenance & Monitoring

Site Location
Liberty Industrial Finishing Site

Date:	Scale:	Figure No. :
January 2013	1 inch = 2,500 feet	1



Piscataway on uspsw2vfp0011Data_uspsw2vfp001\Environment\(J)
File: J:\Project\LibertyIndustrial\Cadd\DrawingsIliberty prr Figures_2014-01-29.dwg Layout: Site Features Fig 2 User: karchj1 Plotted: Jan 29, 2014 - 12:57pm

MW-7
MW-17
SUFFOLK AVENUE
WOODED LOT
FENCE
SITE
LIBERTY INDUSTRIAL FINISHING (1-52-108)
LEACHING POOL (ABANDONED IN PLACE)
CONCRETE PAD (DEMOLISHED BUILDING)
UNDERGROUND PLATING WASTE TANKS (ABANDONED IN PLACE)
QUINN PLACE
SECOND STREET
LONG ISLAND RAILROAD TRACKS
MW-01
MW-02
MW-03
MW-04
(44.00,S)
(43.93,S)
MW-5
MW-6
(43.55,M)
(43.97,S)
(43.99,S)
MW-10
(43.91,S)
MW-16
(43.76,D)
MW-09
MW-15
MW-02A
MW-01A
MW-08
SECOND AVE
RECREATIONAL FIELD
MW-13
MW-03A
MW-19
(43.27,M)
MW-18
(43.81,VD)
BASEBALL FIELD
WATER TOWER
MW-12
(43.51,S)
MW-14
(43.34,D)
FIRST STREET
MW-11
MW-04A
MW-21
(43.50,D)
THIRD AVENUE
MW-20
(43.35,VD)
Graphic Scale
100 50 0 100
N

LEGEND:

- ① UST Plating Waste Tank
- MW-20 — Well Utilized For Long Term Monitoring
- MW-02A — Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- (45.35) Groundwater Elevation in Ft, NGVD

Prepared by : AECOM

SUBMITTED BY : PK
DRAWN BY : SC/jk
APPROVED BY : PK

MULTI SITE G - LIBERTY INDUSTRIAL SITE
SITE NO. 1-52-108
GROUNDWATER ELEVATIONS SEPTEMBER 2017

NYSDEC
625 Broadway, Albany NY, 12233

DATE : JANUARY 2017
SCALE : IN FEET, AS SHOWN
DRAWING NO. : 3

L:\work\60277021_Multi_Site_G\03 - Liberty Industrial Finishing\7.0 Deliverables\7.2 CADD

FIGURE 4
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
GROUNDWATER HYDROGRAPH

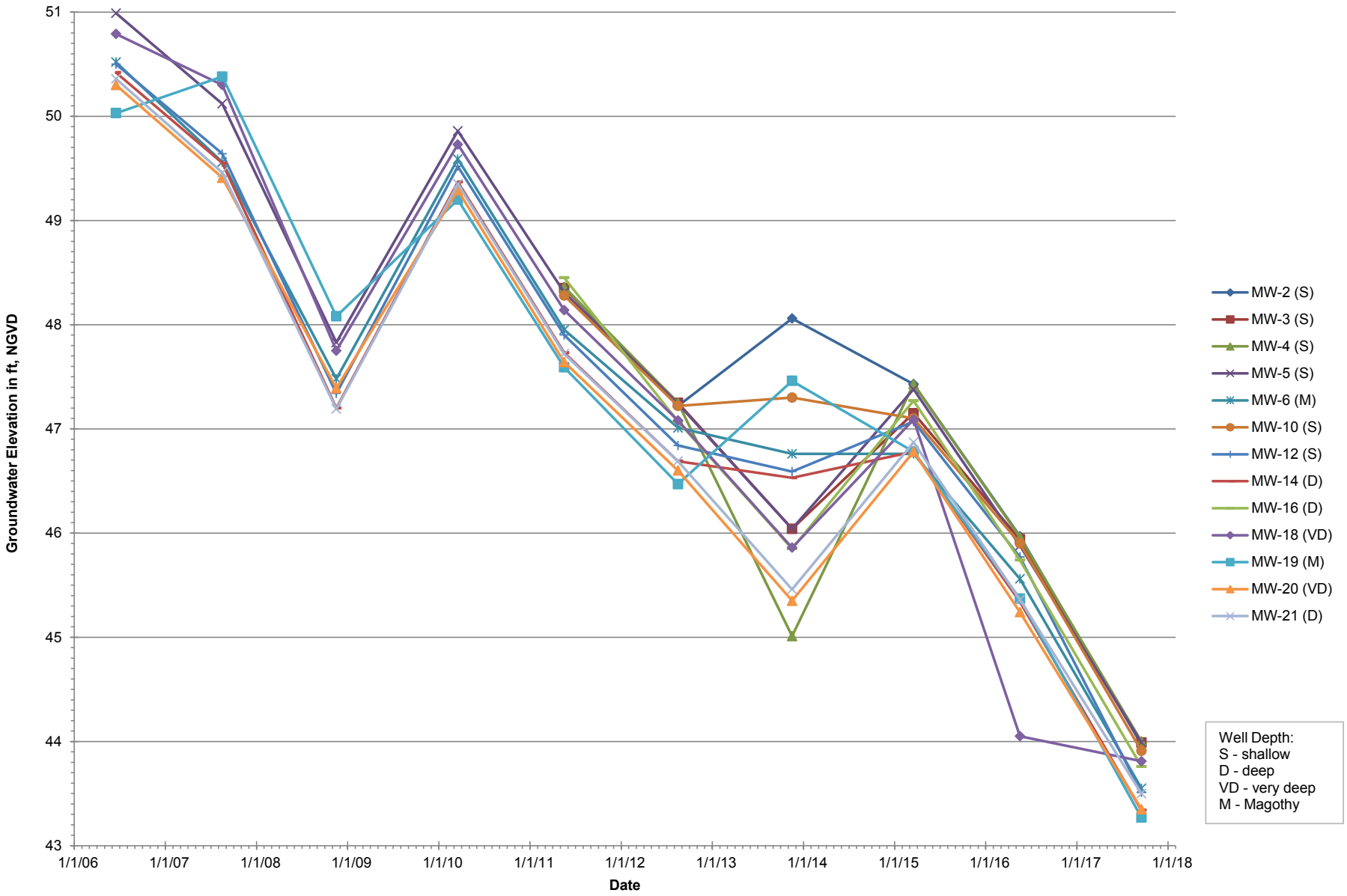


Figure 4A
Liberty Industrial Finishing Site (1-52-108)
Groundwater Hydrograph - Shallow Wells

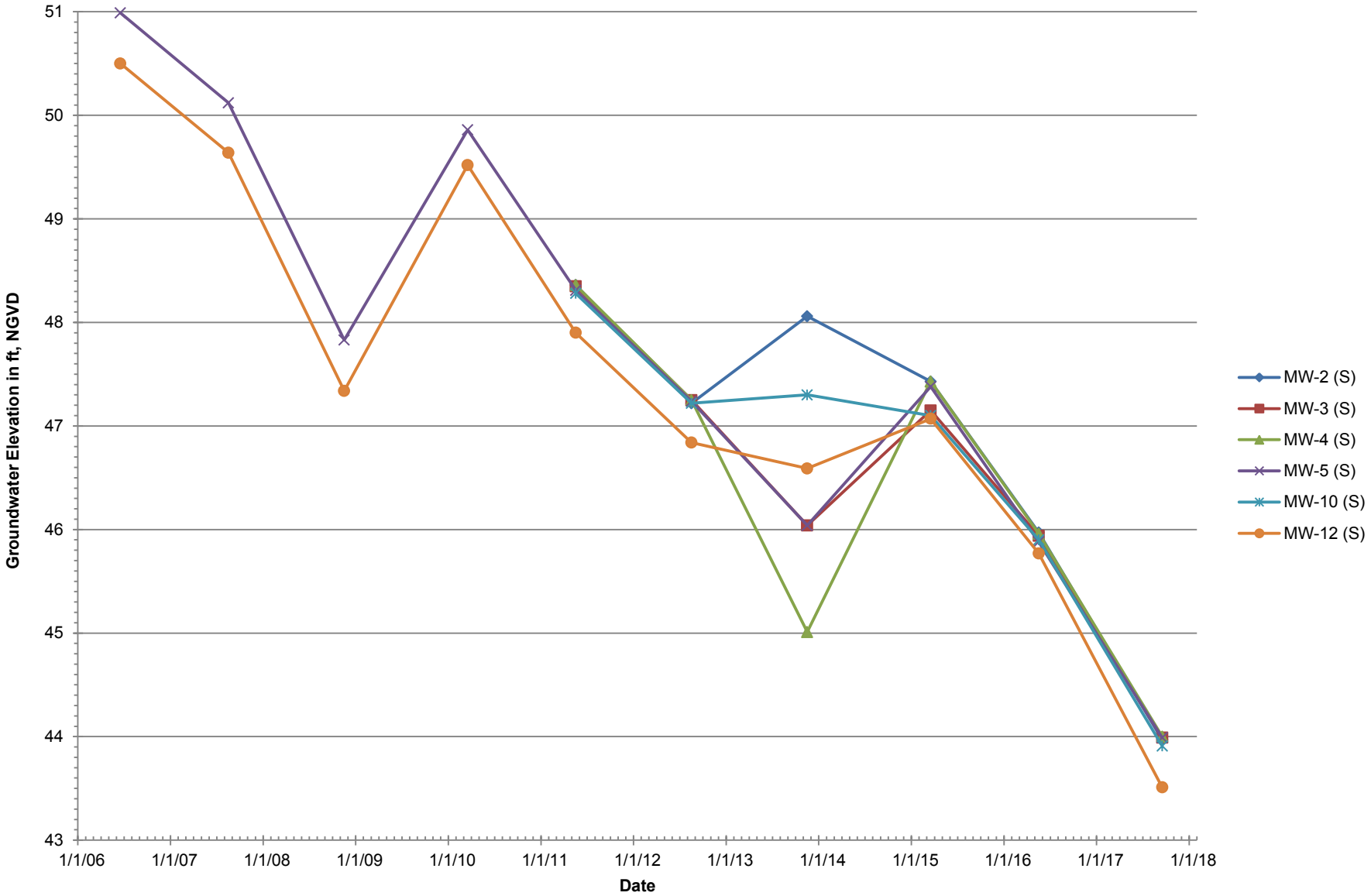


Figure 4B
LIberty Industrial Finishing Site (1-52-108)
Groundwater Hydrograph - Deep Wells

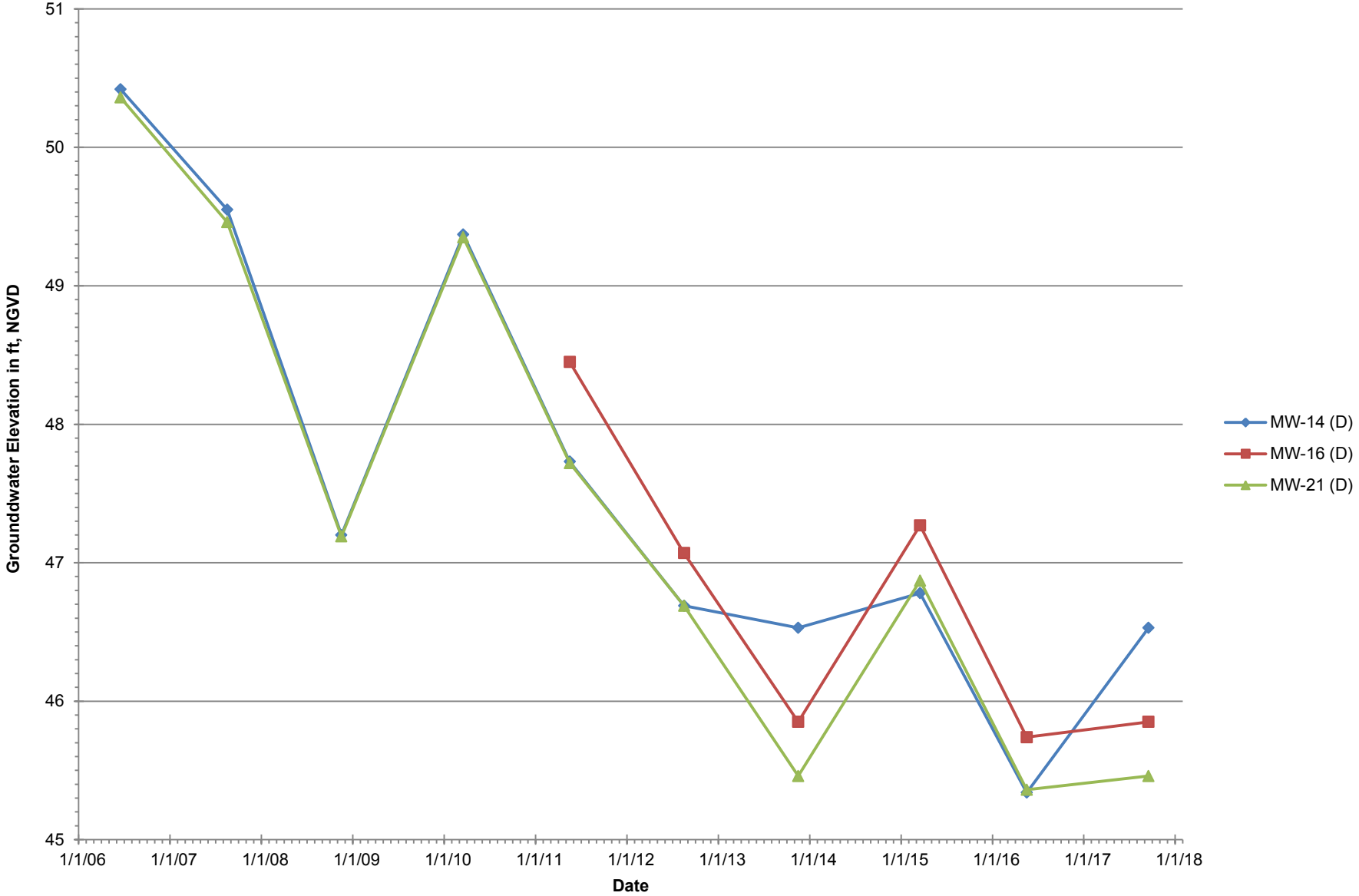


Figure 4C
Liberty Industrial Finishing Site (1-52-108)
Groundwater Hydrograph, Very Deep Wells

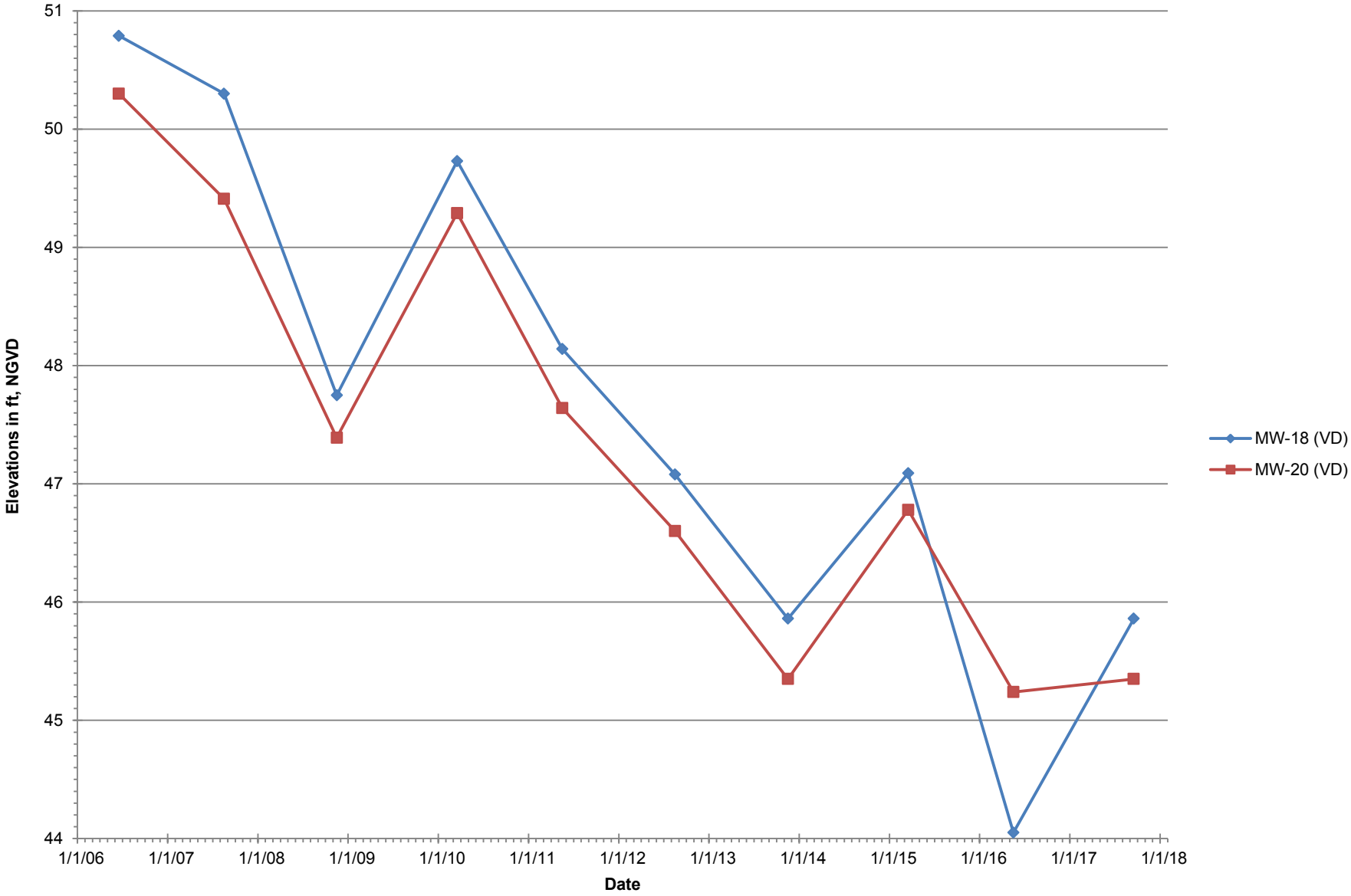
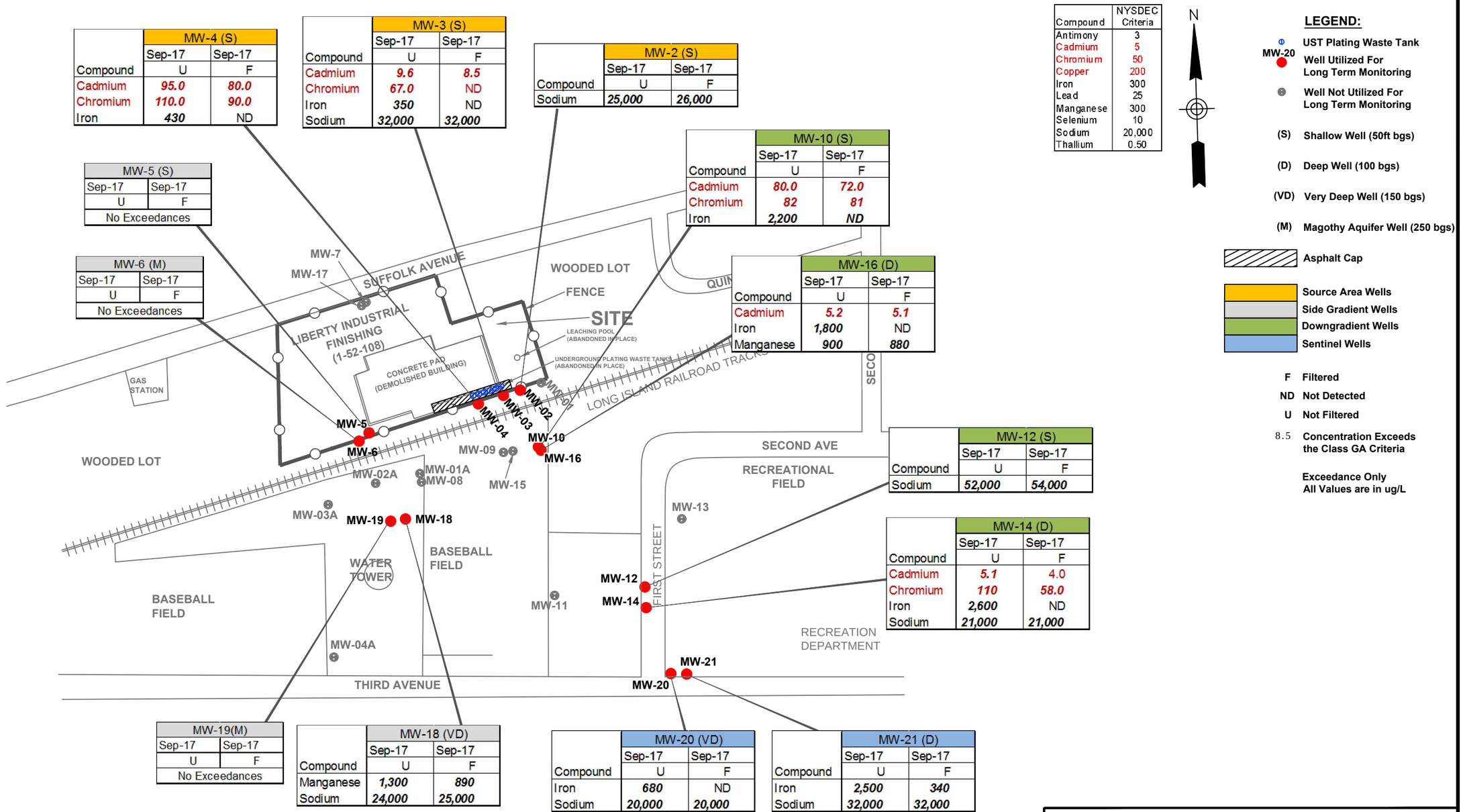


Figure 4D
Liberty Industrial Finishing Site (1-52-108)
Groundwater Hydrograph, Magothy Wells





Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC/jk

APPROVED BY : PK

MULTI SITE G - LIBERTY INDUSTRIAL SITE
SITE NO. 1-52-108

SUMMARY OF TAL METALS IN GROUNDWATER SEPTEMBER 2017

NYSDEC
625 Broadway, Albany NY, 12233

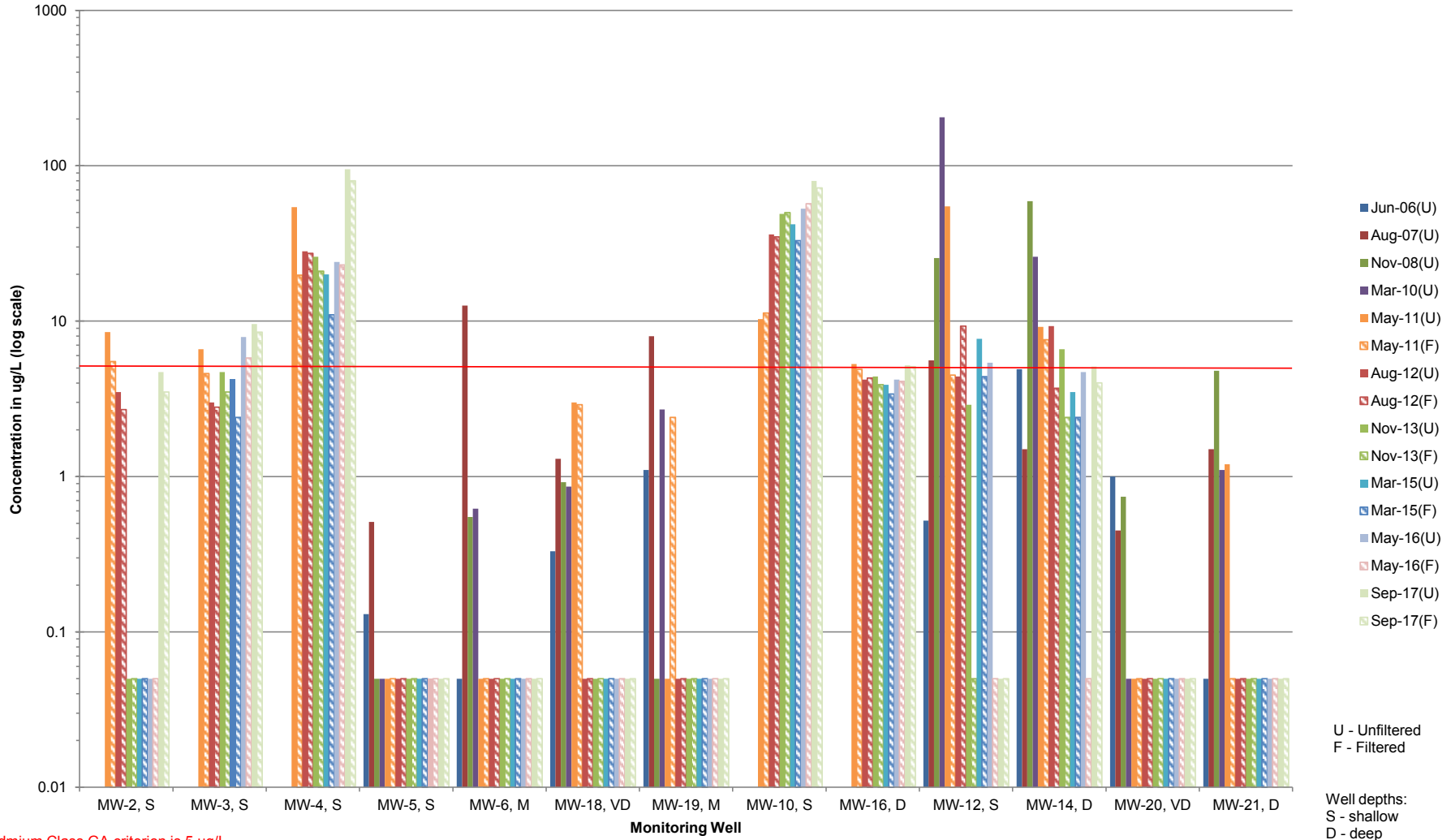
DATE : JANUARY 2018

SCALE : IN FEET, AS SHOWN

DRAWING NO. : 5

L:\work\60277021_Multi_Site_G\03 - Liberty Industrial Finishing\7.0 Deliverables\7.2 CADD

FIGURE 6
CADMIUM CONCENTRATIONS IN SELECTED MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)



U - Unfiltered
F - Filtered

Well depths:
S - shallow
D - deep
VD - very deep
M - Magothy

Cadmium Class GA criterion is 5 ug/L
ND values shown as 0.05 for plotting purposes

FIGURE 6A
CADMIUM CONCENTATIONS IN SOURCE AREA MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)

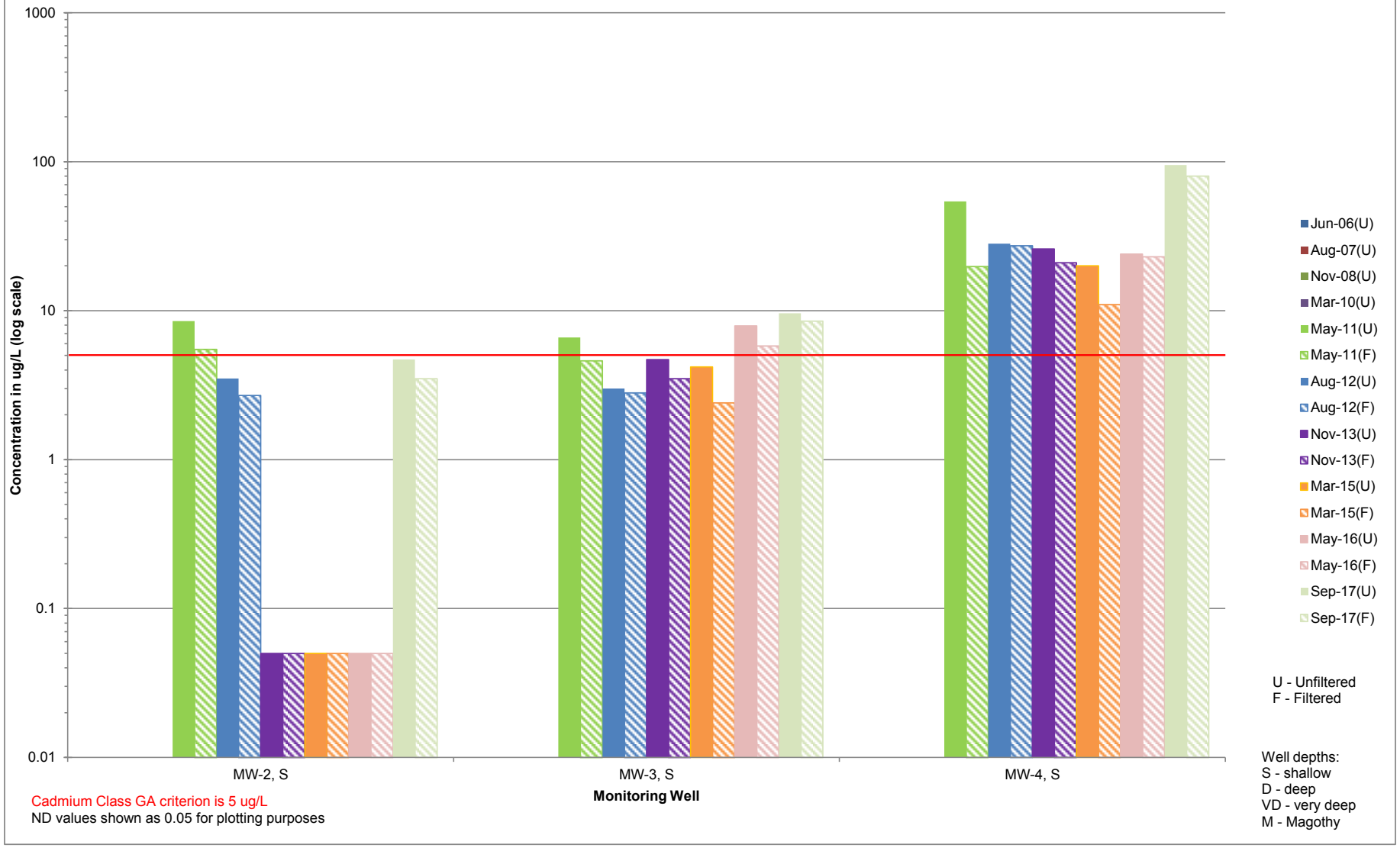
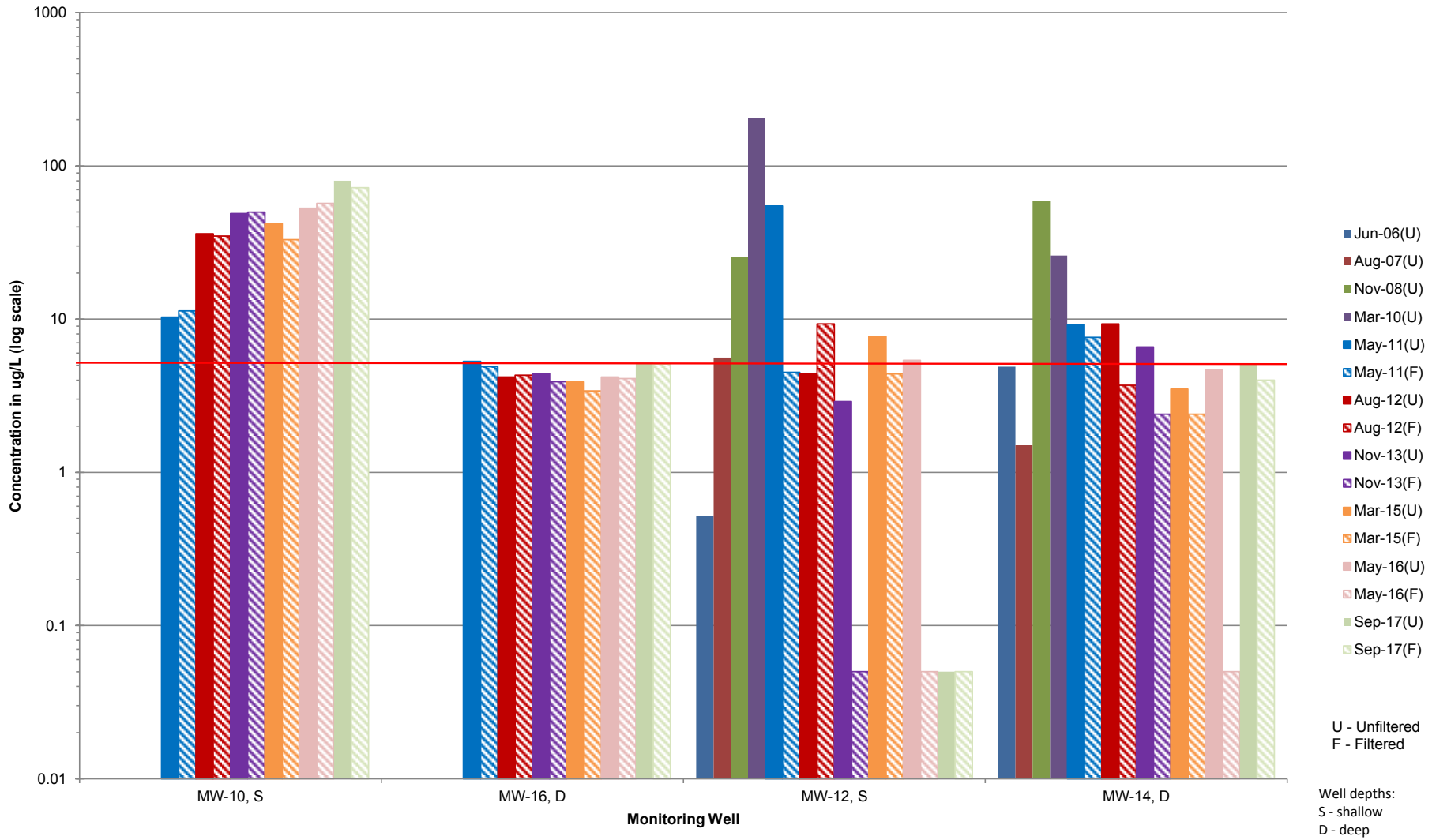
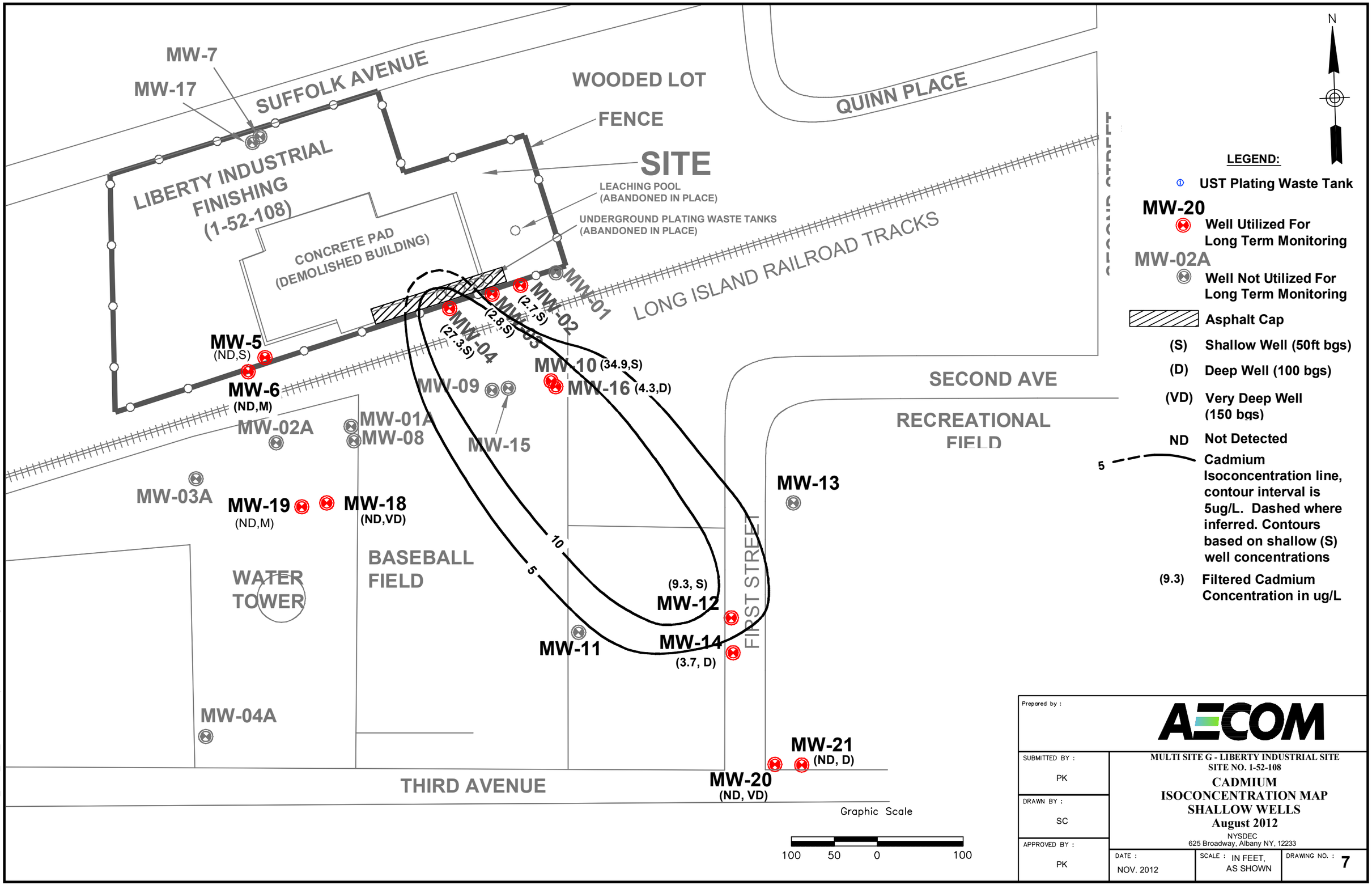


FIGURE 6B
CADMIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING (1-52-108)



Cadmium Class GA criterion is 5 ug/L
ND values set to 0.05 ug/L for plotting purposes



Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CADMIUM ISOCONCENTRATION MAP SHALLOW WELLS August 2012 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : NOV. 2012 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 7

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MW-7
MW-17
SUFFOLK AVENUE
WOODED LOT
FENCE
QUINN PLACE
SITE
LIBERTY INDUSTRIAL FINISHING (1-52-108)
LEACHING POOL (ABANDONED IN PLACE)
CONCRETE PAD (DEMOLISHED BUILDING)
UNDERGROUND PLATING WASTE TANKS (ABANDONED IN PLACE)
MW-01
LONG ISLAND RAILROAD TRACKS
SECOND STREET
MW-02 (ND, S)
MW-03 (3.5, S)
MW-04 (21.0, S)
(ND, S) MW-5
MW-6 (ND, M)
MW-10 (50, S)
MW-16 (3.9, D)
MW-09
SECOND AVE
RECREATIONAL FIELD
MW-02A
MW-01A
MW-08
MW-15
10
5
MW-13
MW-03A
MW-19 (ND, M)
MW-18 (ND, VD)
BASEBALL FIELD
WATER TOWER
FIRST STREET
MW-12 (ND, S)
MW-14 (2.4, D)
MW-11
MW-04A
MW-21 (ND, D)
THIRD AVENUE
MW-20 (ND, VD)

Graphic Scale
100 50 0 100

N

LEGEND:

- UST Plating Waste Tank
- **MW-20** — Well Utilized For Long Term Monitoring
- **MW-02A** — Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- Cadmium Isoconcentration line, contour interval is 5ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (2.4) Filtered Cadmium Concentration in ug/L
- ND NOT DETECTED

Prepared by : AECOM

SUBMITTED BY : PK
DRAWN BY : SC
APPROVED BY : PK

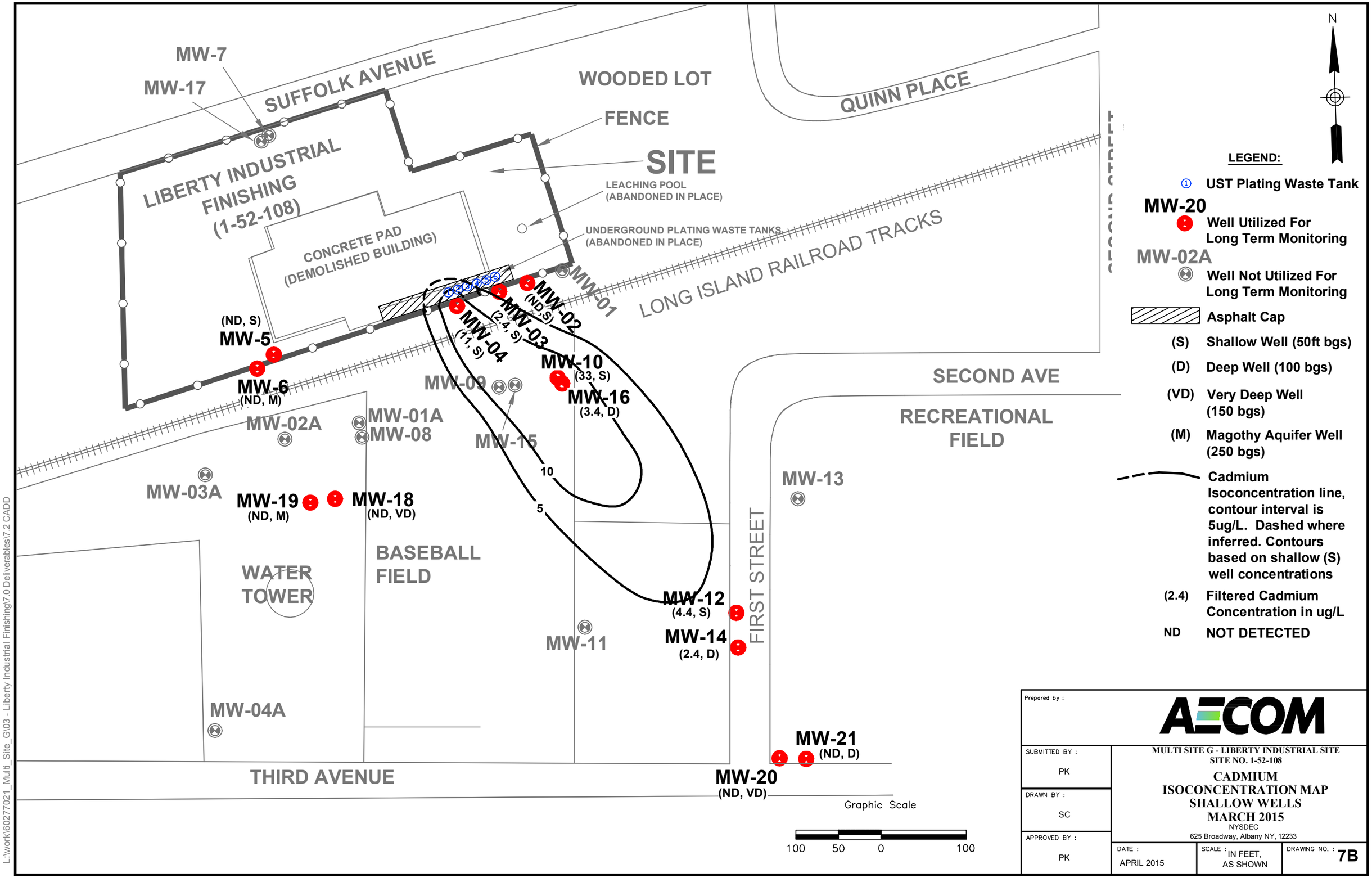
MULTI SITE G - LIBERTY INDUSTRIAL SITE
SITE NO. 1-52-108

CADMIUM ISOCONCENTRATION MAP SHALLOW WELLS NOVEMBER 2013

NYSDEC
625 Broadway, Albany NY, 12233

DATE : NOVEMBER 2013
SCALE : IN FEET, AS SHOWN
DRAWING NO. : 7A

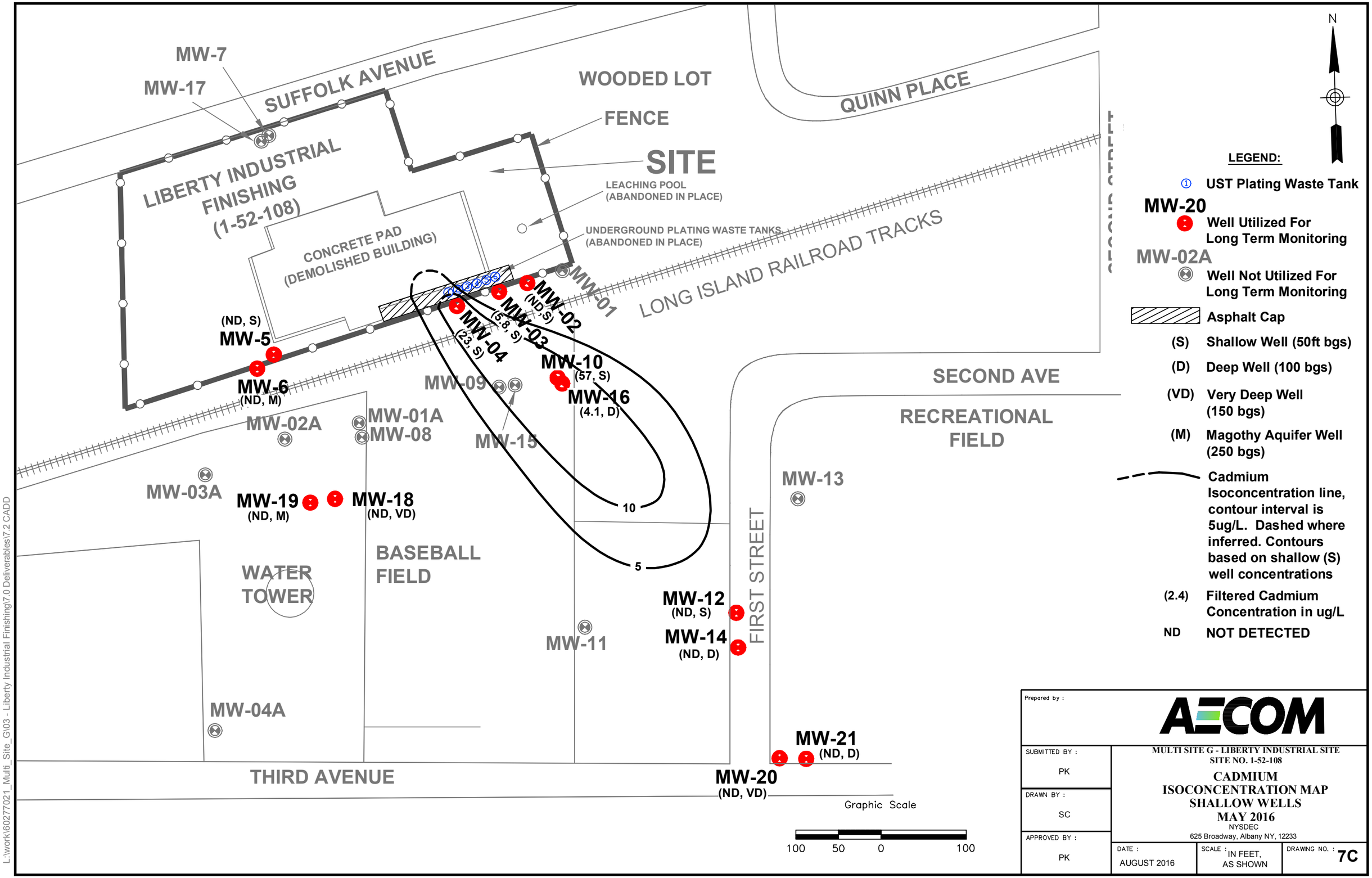
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Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CADMIUM ISOCONCENTRATION MAP SHALLOW WELLS MARCH 2015 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : APRIL 2015 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 7B

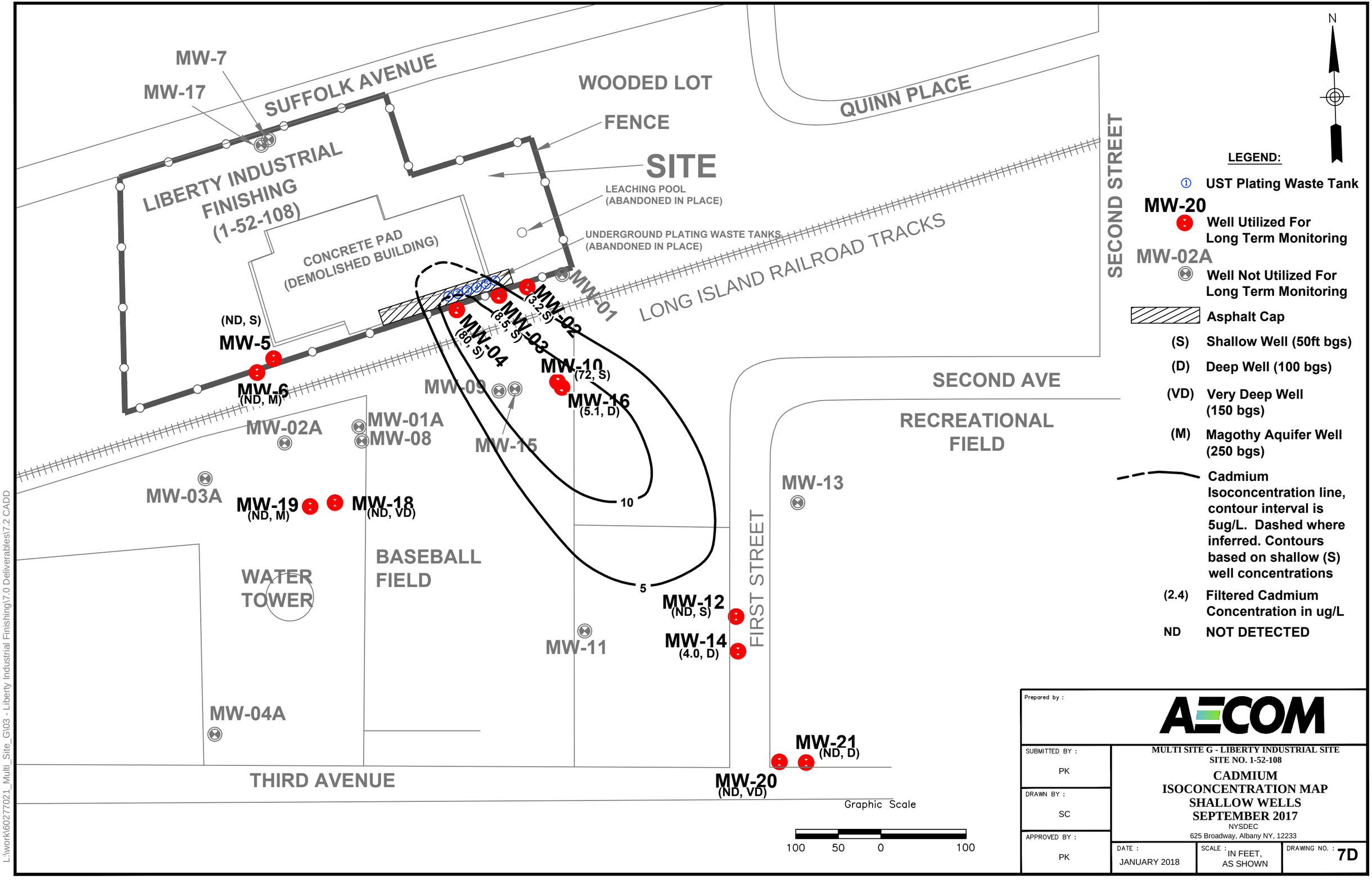
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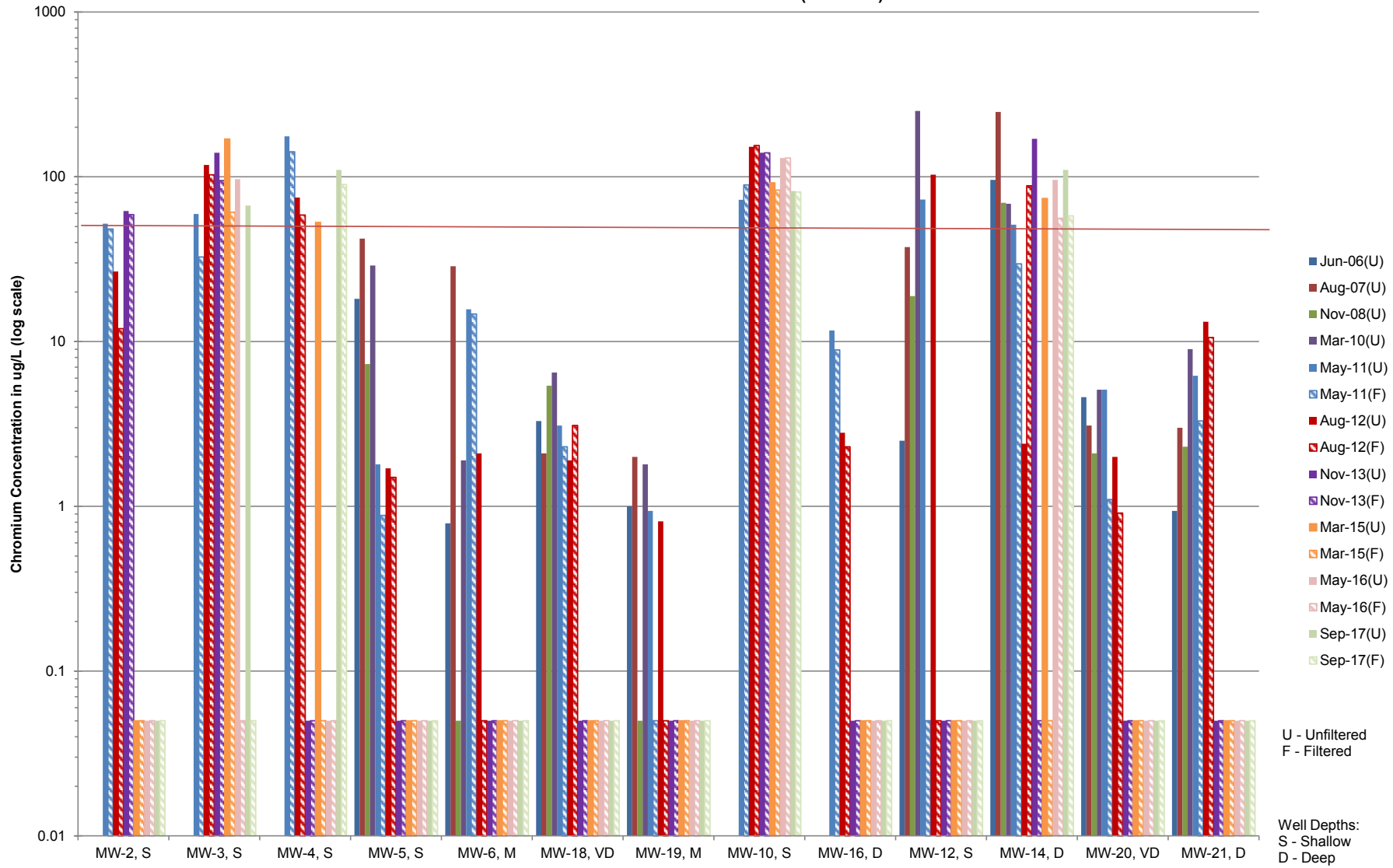
Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CADMIUM ISOCONCENTRATION MAP SHALLOW WELLS MAY 2016 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : AUGUST 2016 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 7C



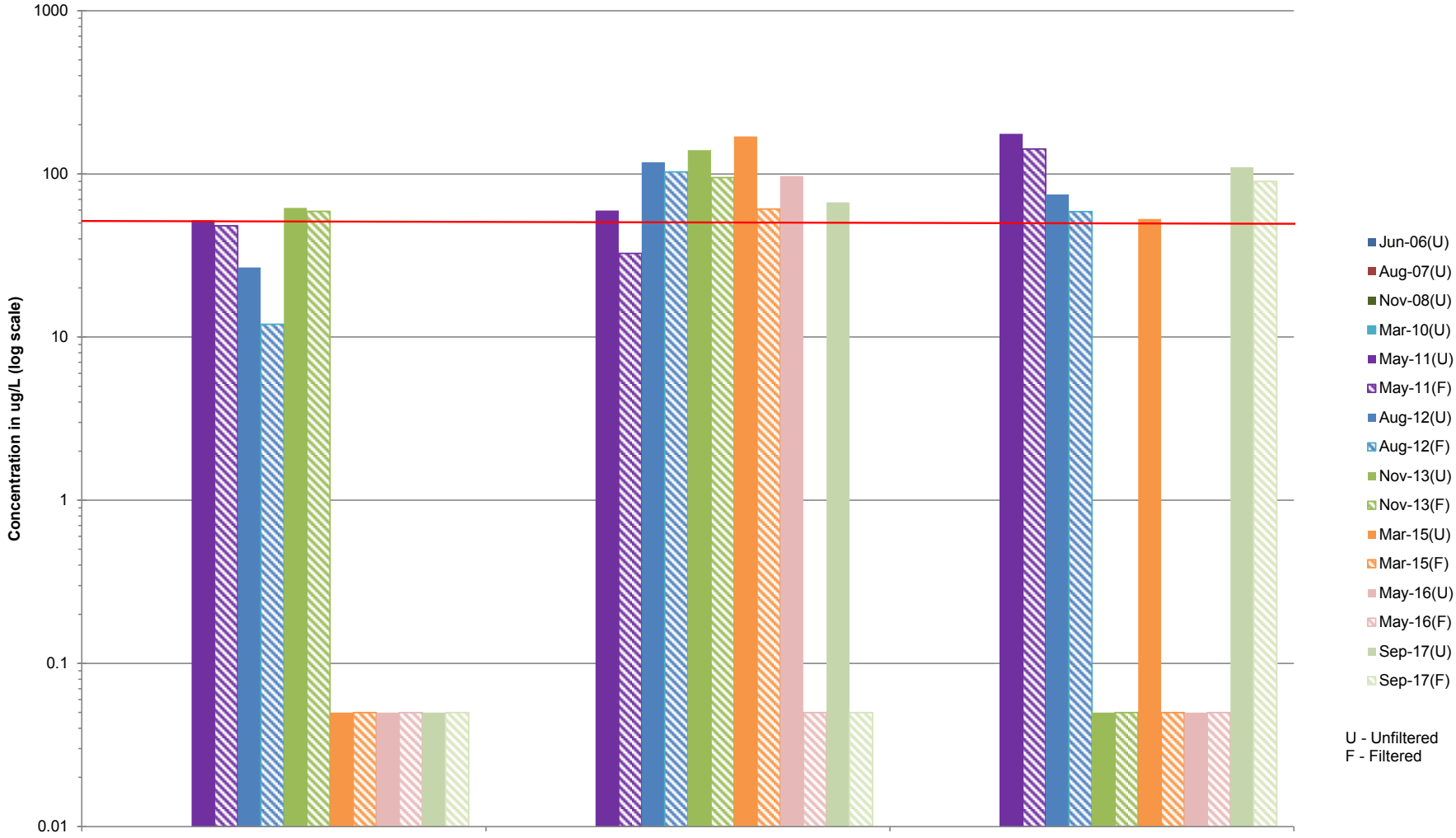
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FIGURE 8
CHROMIUM CONCENTRATIONS IN SELECTED MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING (1-52-108)



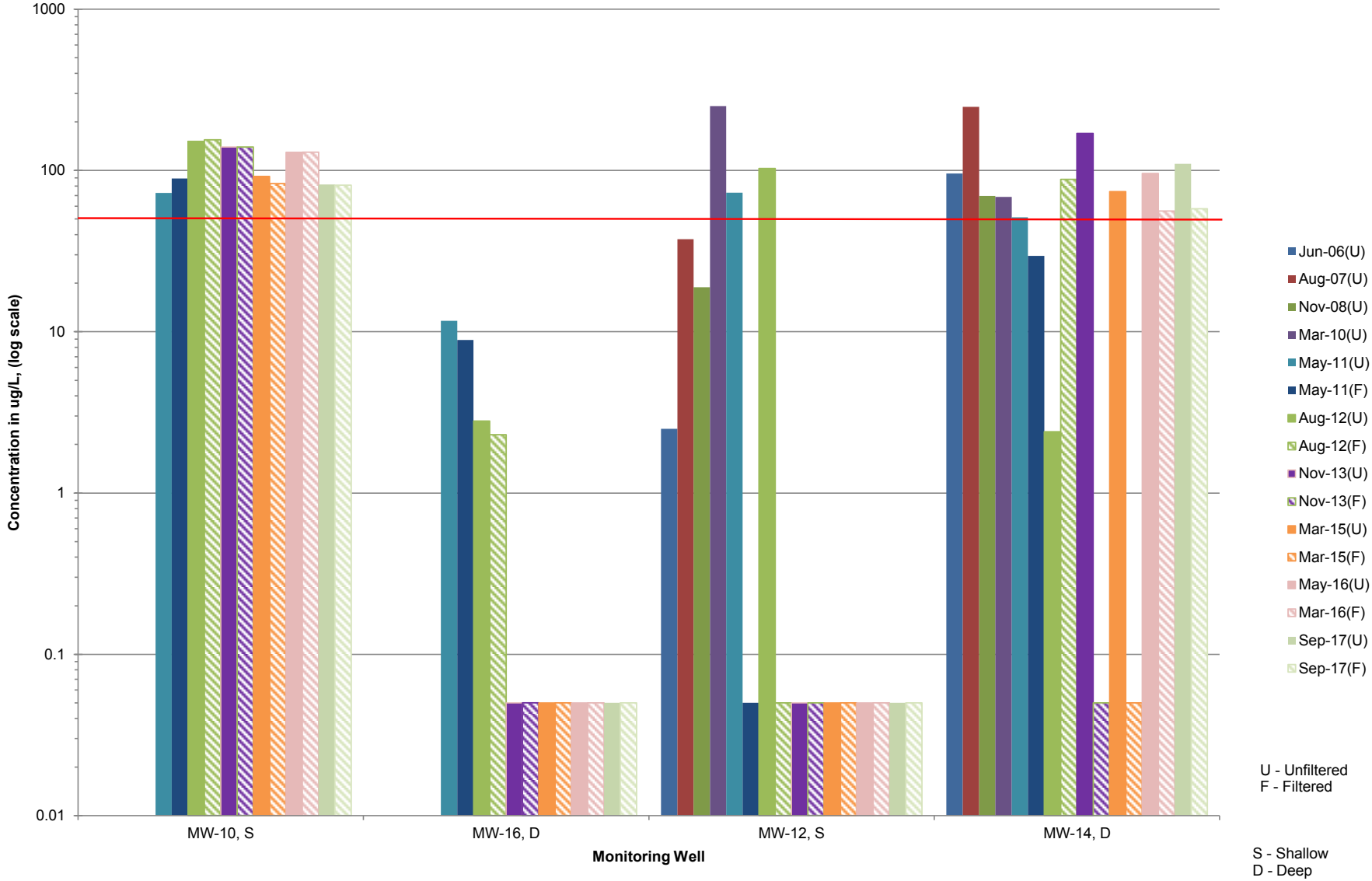
Chromium Class GA criterion is 50 ug/L
ND shown as 0.05 ug/L for plotting purposes

FIGURE 8A
CHROMIUM CONCENTRATIONS IN SOURCE AREA MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)

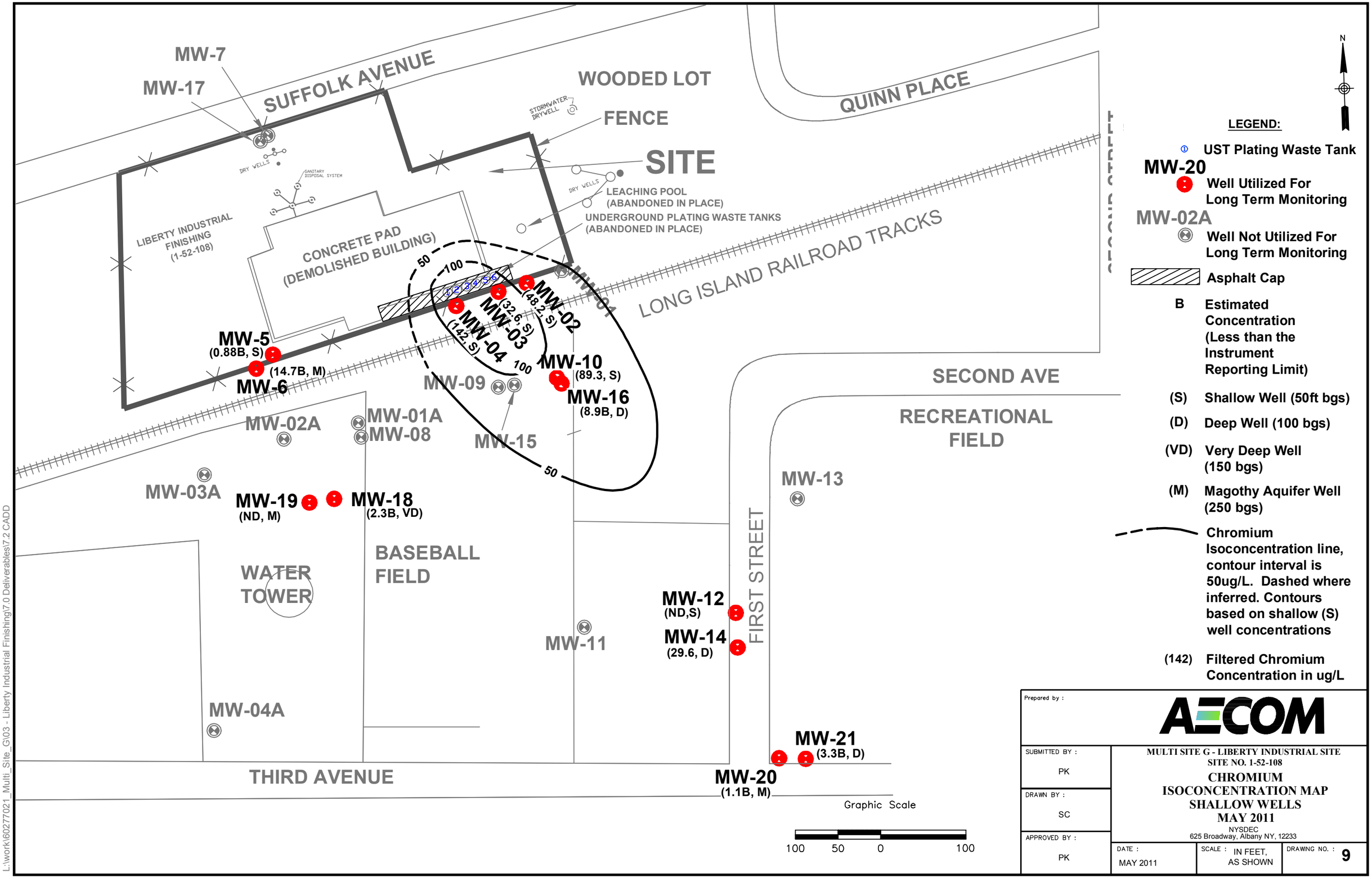


Chromium Class GA criterion is 50 ug/L
ND shown as 0.05 ug/L for plotting purposes

FIGURE 8B
CHROMIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING, SITE (1-52-108)



Chromium Class GA criterion is 50 ug/L
ND shown as 0.05 ug/L for plotting purposes



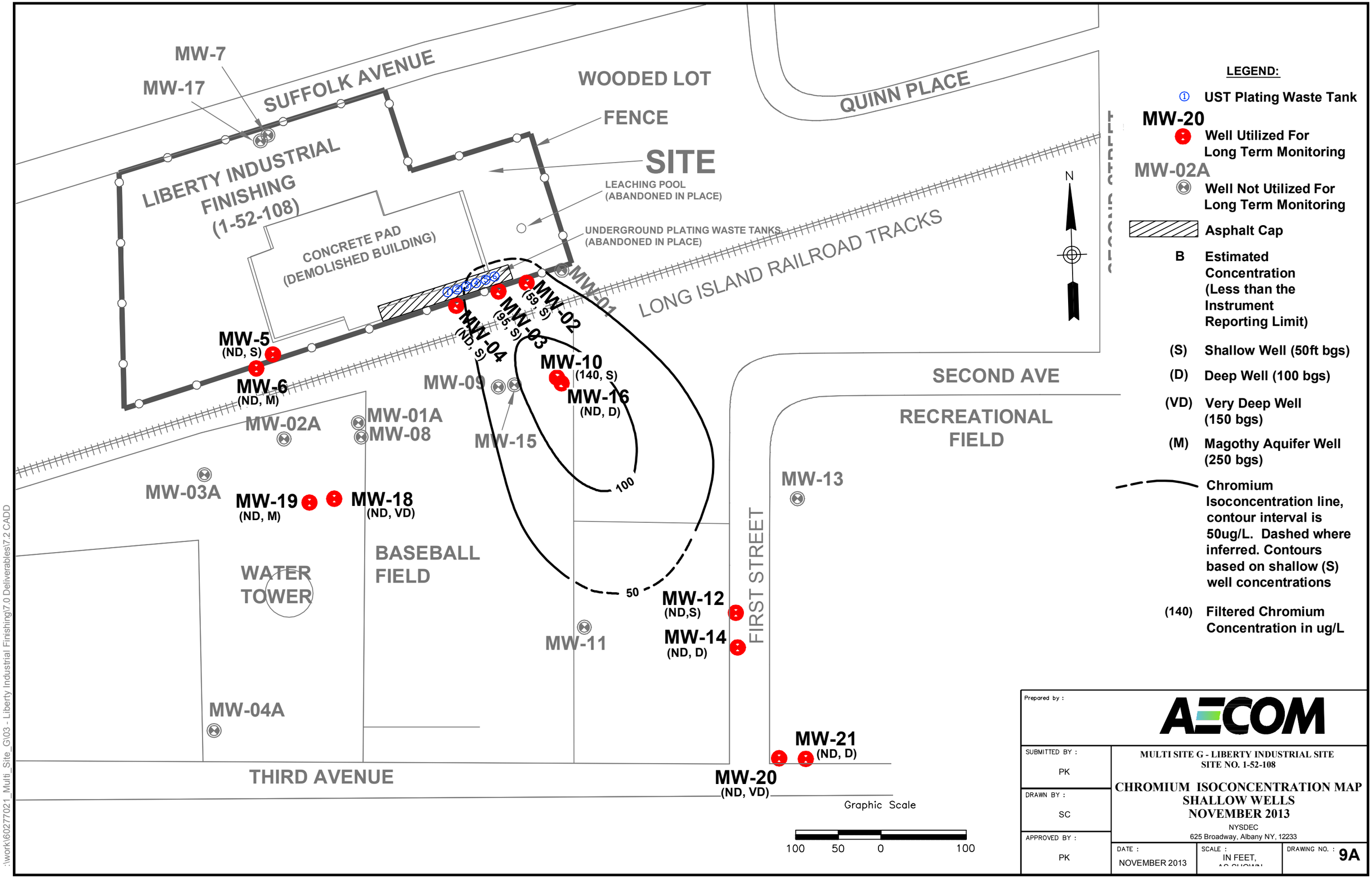
LEGEND:

- UST Plating Waste Tank
- **MW-20** — Well Utilized For Long Term Monitoring
- **MW-02A** — Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- B — Estimated Concentration (Less than the Instrument Reporting Limit)
- (S) — Shallow Well (50ft bgs)
- (D) — Deep Well (100 bgs)
- (VD) — Very Deep Well (150 bgs)
- (M) — Magothy Aquifer Well (250 bgs)
- Chromium Isoconcentration line, contour interval is 50ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (142) — Filtered Chromium Concentration in ug/L

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CHROMIUM ISOCONCENTRATION MAP SHALLOW WELLS MAY 2011 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : MAY 2011 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 9

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LEGEND:

- ① UST Plating Waste Tank
- **MW-20** Well Utilized For Long Term Monitoring
- **MW-02A** Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- B Estimated Concentration (Less than the Instrument Reporting Limit)
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- Chromium Isoconcentration line, contour interval is 50ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (140) Filtered Chromium Concentration in ug/L

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108
DRAWN BY : SC	CHROMIUM ISOCONCENTRATION MAP SHALLOW WELLS NOVEMBER 2013
APPROVED BY : PK	NYSDEC 625 Broadway, Albany NY, 12233
DATE : NOVEMBER 2013	SCALE : IN FEET, AS SHOWN
DRAWING NO. : 9A	

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MW-7
MW-17
SUFFOLK AVENUE
WOODED LOT
FENCE
SITE
LIBERTY INDUSTRIAL FINISHING (1-52-108)
LEACHING POOL (ABANDONED IN PLACE)
CONCRETE PAD (DEMOLISHED BUILDING)
UNDERGROUND PLATING WASTE TANKS (ABANDONED IN PLACE)
QUINN PLACE
LONG ISLAND RAILROAD TRACKS
MW-01
MW-02 (ND, S)
MW-03 (61, S)
MW-04 (ND, S)
MW-5 (ND, S)
MW-6 (ND, M)
MW-09
MW-10 (83, S)
MW-16 (ND, D)
MW-02A
MW-01A
MW-08
MW-15
SECOND AVE
RECREATIONAL FIELD
MW-03A
MW-19 (ND, M)
MW-18 (ND, VD)
50
BASEBALL FIELD
WATER TOWER
MW-13
FIRST STREET
MW-12 (ND,S)
MW-14 (ND, D)
MW-11
MW-04A
MW-21 (ND, D)
THIRD AVENUE
MW-20 (ND, VD)
N
Graphic Scale
100 50 0 100

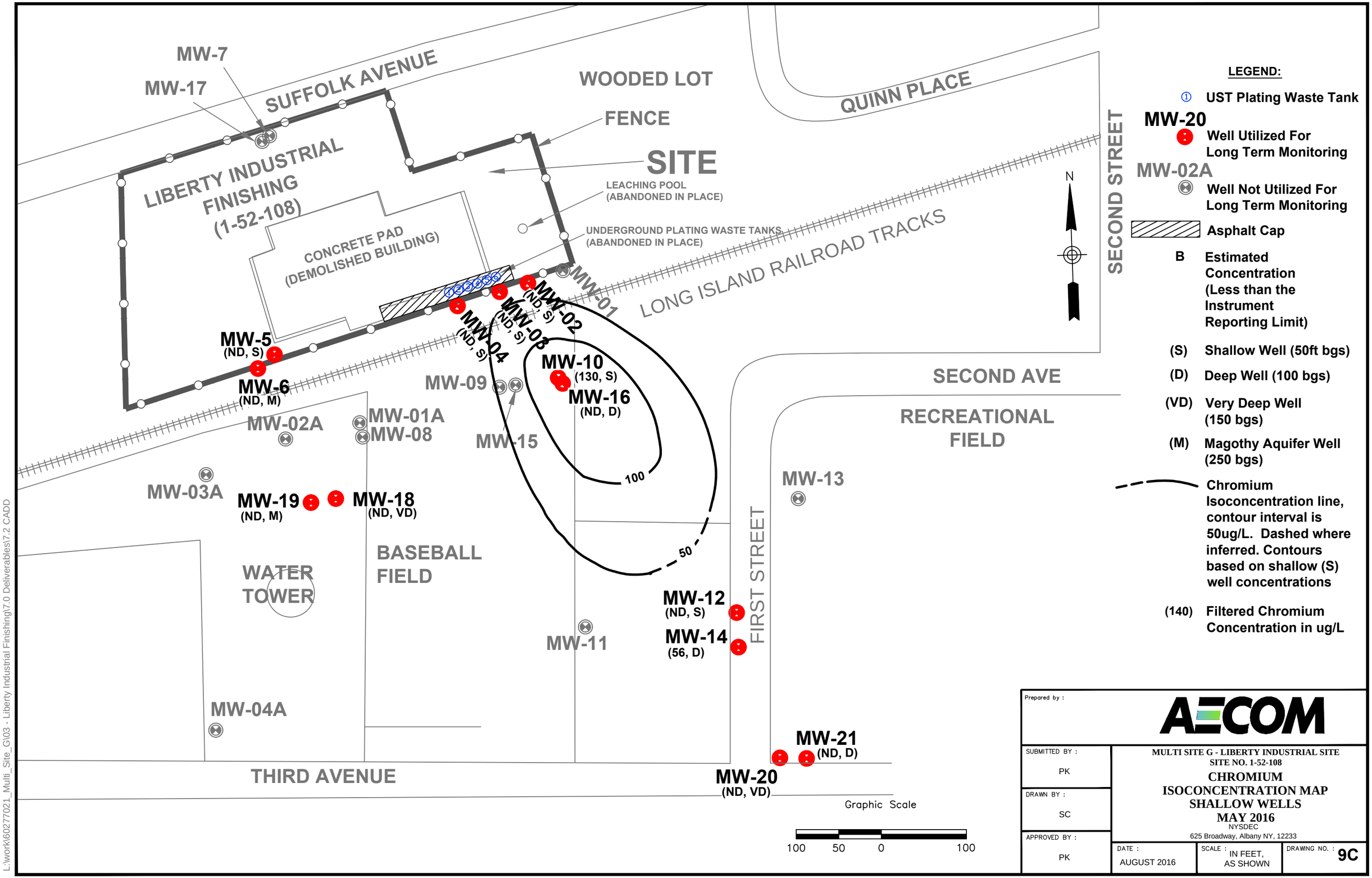
LEGEND:

- ① UST Plating Waste Tank
- **MW-20** Well Utilized For Long Term Monitoring
- **MW-02A** Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- B Estimated Concentration (Less than the Instrument Reporting Limit)
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- Chromium Isoconcentration line, contour interval is 50ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (140) Filtered Chromium Concentration in ug/L

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CHROMIUM ISOCONCENTRATION MAP SHALLOW WELLS MARCH 2015 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : APRIL 2015 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 9B

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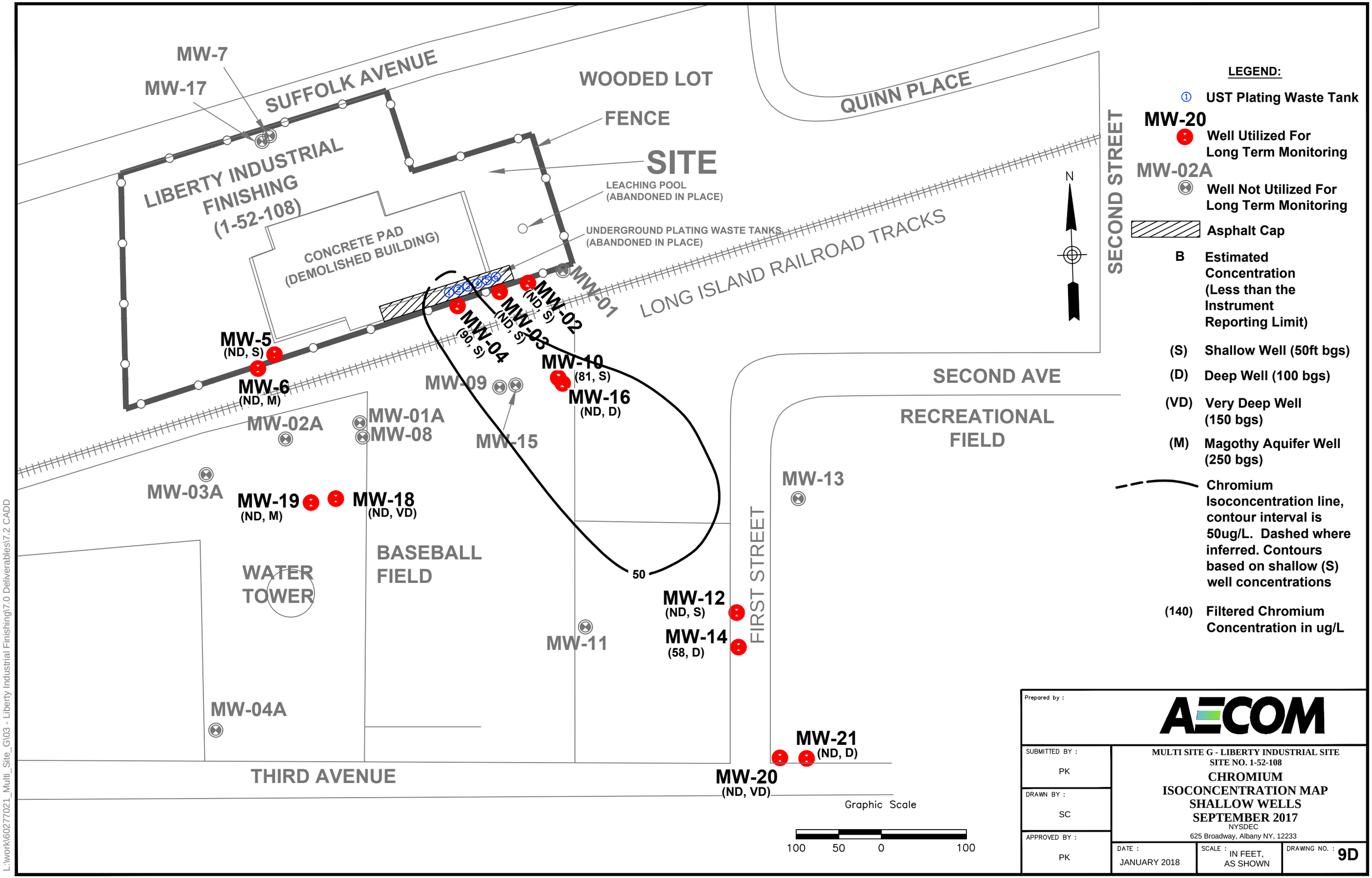
LEGEND:

- ① UST Plating Waste Tank
- **MW-20** Well Utilized For Long Term Monitoring
- **MW-02A** Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- B Estimated Concentration (Less than the Instrument Reporting Limit)
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- Chromium Isoconcentration line, contour interval is 50ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (140) Filtered Chromium Concentration in ug/L

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CHROMIUM ISOCONCENTRATION MAP SHALLOW WELLS MAY 2016 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : AUGUST 2016 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 9C

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LEGEND:

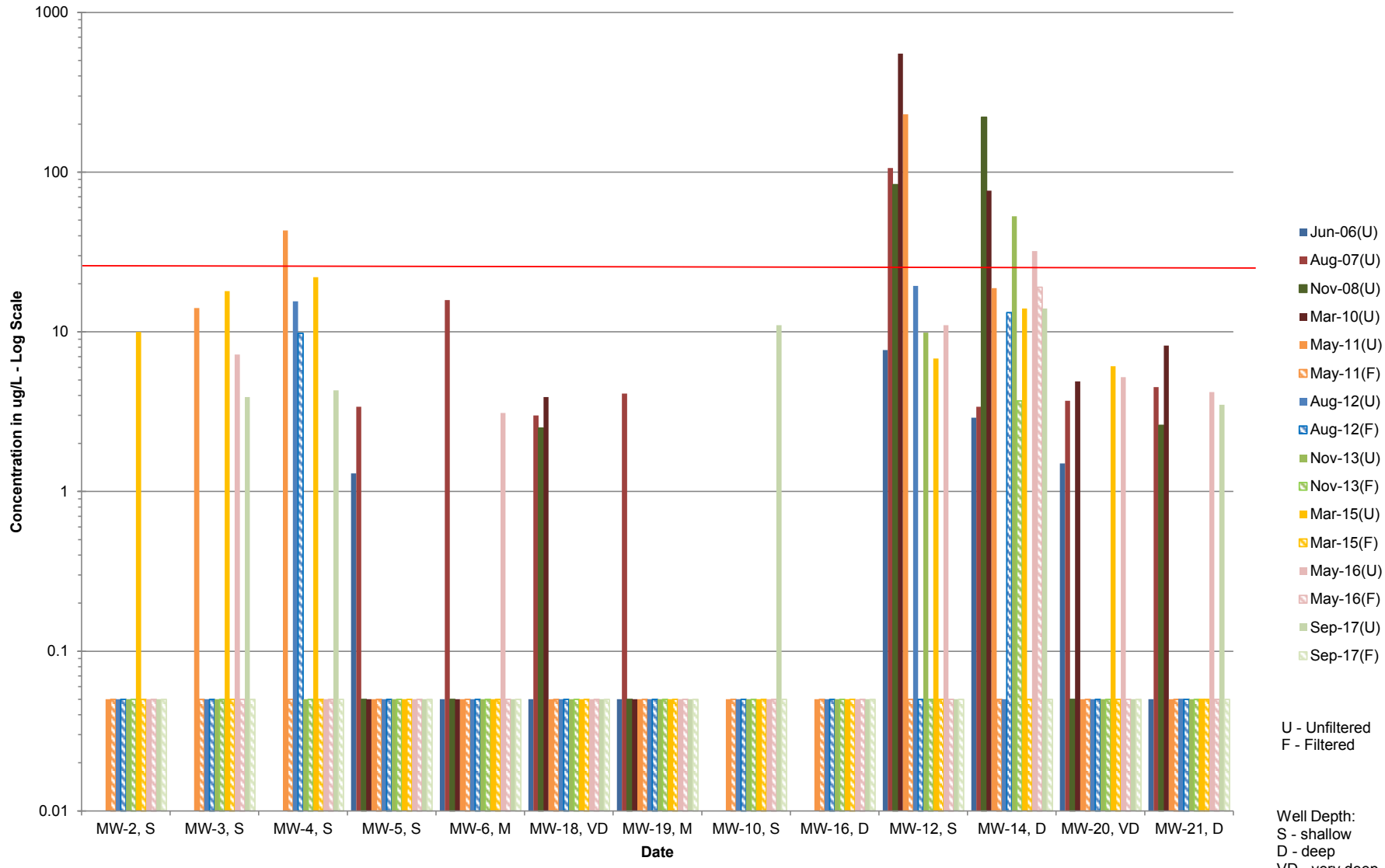
- ① UST Plating Waste Tank
- **MW-20** Well Utilized For Long Term Monitoring
- **MW-02A** Well Not Utilized For Long Term Monitoring
- Asphalt Cap
- B Estimated Concentration (Less than the Instrument Reporting Limit)
- (S) Shallow Well (50ft bgs)
- (D) Deep Well (100 bgs)
- (VD) Very Deep Well (150 bgs)
- (M) Magothy Aquifer Well (250 bgs)
- Chromium Isoconcentration line, contour interval is 50ug/L. Dashed where inferred. Contours based on shallow (S) well concentrations
- (140) Filtered Chromium Concentration in ug/L

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-108 CHROMIUM ISOCONCENTRATION MAP SHALLOW WELLS SEPTEMBER 2017 NYSDEC 625 Broadway, Albany NY, 12233
DRAWN BY : SC	
APPROVED BY : PK	DATE : JANUARY 2018 / SCALE : IN FEET, AS SHOWN / DRAWING NO. : 9D

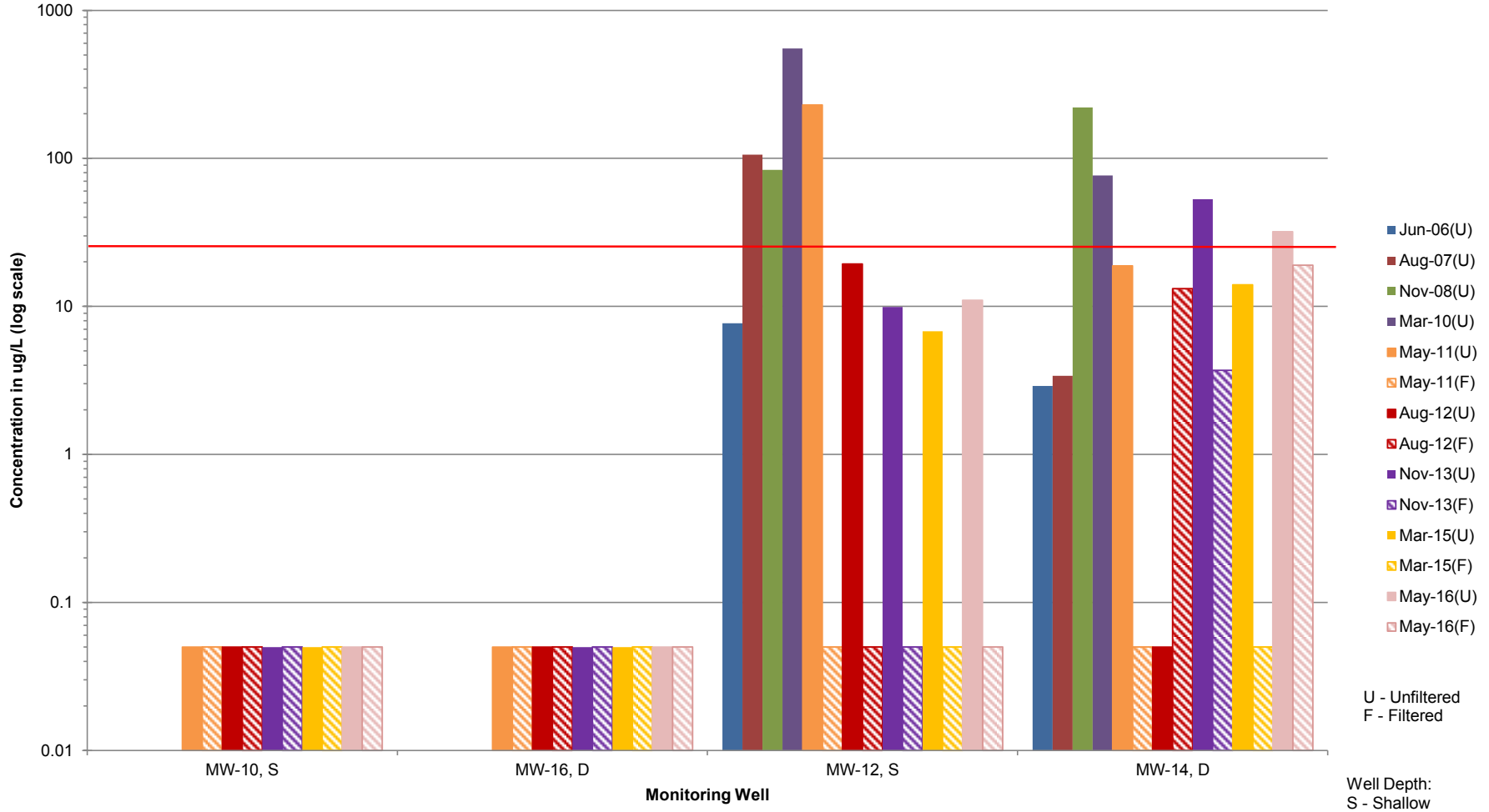
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FIGURE 10
LEAD CONCENTRATIONS IN SELECTED MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)



Class GA crirerion is 25 ug/L
ND values set to 0.05 ug/L for plotting purposes

FIGURE 10A
LEAD CONCENTRATIONS IN DOWNGRADIENT MONITORING WELLS
LIBERTY INDUSTRIAL FINISHING (1-52-108)



Class GA criterion is 25 ug/L
ND shown as 0.05 ug/L for plotting purposes

Appendix A

Monitoring Well Sampling Forms

AECOM

WELL NO. MW-2

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 4.5 gallons WELL TD: 54.2 ft PUMP INTAKE DEPTH: 51 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:35	47.30								Static water level
9:40									pump on
10:00	47.41	200	13.41	0.383	7.70	6.09	274	5.1	
10:05	47.41	200	13.94	0.383	7.55	6.15	278	4.6	
10:10	47.41	200	14.15	0.381	6.81	6.13	276	4.4	
10:20	47.41	200	14.16	0.380	6.92	6.11	276	4.6	
10:25	47.41	200	14.19	0.382	6.99	6.08	276	4.3	
10:30	47.41	200	14.20	0.382	7.04	6.07	276	4.80	
10:35	47.41	200	14.22	0.383	7.57	6.07	276	4.90	
10:40	47.41	200	14.22	0.382	7.55	6.09	276	4.10	
10:45	47.41	200	14.10	0.380	7.55	6.12	277	3.20	
10:45									Unfiltered Sample LMW-2 Collected
10:47									Filtered Sample LMW-2F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-3

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 4.3 gallons WELL TD: 53.9 ft PUMP INTAKE DEPTH: 51 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:45	47.26								Static water level
9:50									pump on
10:00	47.29	200	16.27	0.335	8.42	5.75	211	3.0	
10:05	47.29	200	16.15	0.335	8.58	5.77	210	3.8	
10:10	47.29	200	16.16	0.335	8.58	5.74	211	3.9	
10:20	47.29	200	16.18	0.335	8.58	5.74	211	3.1	
10:25	47.29	200	16.21	0.335	8.57	5.74	210	2.9	
10:30	47.29	200	16.25	0.335	8.57	5.74	210	3.0	
10:35	47.29	200	16.31	0.335	8.56	5.75	210	2.5	
10:35									Unfiltered Sample LMW-3 Collected
10:37									Filtered Sample LMW-3F Collected
12:12									Duplicate Unfiltered LMW-53 Collected
12:14									Duplicated Filtered LMW-53F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-4

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 3.8 gallons WELL TD: 53.4 ft PUMP INTAKE DEPTH: 51.0 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:17	47.61								Static water level
12:20									pump on
12:25	47.61	200	16.03	0.159	0.63	6.08	182	2.0	
12:30	47.61	200	15.39	0.162	0.64	6.11	161	0.0	
12:35	47.61	200	15.21	0.168	0.79	6.18	145	0.0	
12:40	47.61	200	15.01	0.177	1.23	6.15	148	0.0	
12:45	47.61	200	14.97	0.181	1.39	6.22	149	0.0	
12:50	47.61	200	14.90	0.189	1.46	6.23	153	0.0	
12:55	47.61	200	14.86	0.194	1.50	6.25	156	0.0	
13:00	47.61	200	14.80	0.197	1.51	6.26	162	0.0	
13:00									Unfiltered Sample LMW-4 Collected
13:02									Filtered Sample LMW-4F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-5

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 0.5 gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 49 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:20	49.30								Static water level
10:25									pump on
10:30	49.30	250	20.52	0.106	6.59	5.83	324	0.0	
10:40	49.31	250	20.10	0.106	6.55	5.78	325	0.0	
10:50	49.31	250	20.06	0.108	6.84	5.80	293	0.0	
11:00	49.31	250	21.54	0.101	6.26	5.79	289	0.0	
11:05	49.31	250	21.62	0.102	6.10	5.80	294	0.0	
11:10									Unfiltered Sample LMW-5 Collected
11:12									Filtered Sample LMW-5F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-6

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 141 gallons WELL TD: 265 ft PUMP INTAKE DEPTH: 259 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:00	49.16								Static water level
10:25									pump on, no water
11:00	Pump back on, pulled pump, fixed bladder, fixed air line								
11:05	49.27	250	18.24	0.122	9.58	6.05	171	3.6	
11:10	49.27	250	17.92	0.121	7.40	4.94	177	6.7	
11:20	49.27	250	17.84	0.123	7.73	5.82	189	0.0	
11:30	49.27	250	17.66	0.123	8.14	4.93	194	0.0	
11:40	49.27	250	17.83	0.123	6.96	5.62	195	10.0	
11:45	49.27	250	17.73	0.124	6.88	5.70	197	27.3	
11:50	49.27	250	17.52	0.124	7.30	4.83	199	0.0	
11:55	49.27	250	17.83	0.125	6.83	5.66	201	0.0	
12:00	49.27	250	17.60	0.126	6.88	5.56	204	0.0	
12:05	49.27	250	17.62	0.126	6.90	5.61	202	0.0	
12:10	49.27	250	17.63	0.126	6.90	5.61	202	0.0	
12:15									Unfiltered Sample LMW-6 Collected
12:17									Filtered Sample LMW-6F Collected

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-10

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 2.3 gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:06	46.49								Static water level
10:09									pump on
10:15	46.49	200	18.41	0.141	6.94	5.81	286	78.3	
10:20	46.49	200	17.12	0.141	6.86	6.02	312	50.4	
10:25	46.49	200	17.04	0.135	6.83	6.10	314	49.2	
10:30	46.49	200	16.42	0.129	6.79	6.12	321	46.7	
10:35	46.49	200	16.15	0.126	6.72	6.12	322	41.8	
10:40	46.49	200	16.08	0.127	6.72	6.09	324	39.4	
10:45	46.49	200	15.97	0.127	6.73	6.07	327	36.4	
10:50	46.49	200	15.99	0.124	6.75	6.11	333	36.0	
10:55	46.49	200	15.92	0.122	6.70	6.15	334	34.8	
10:58									Unfiltered Sample LMW-10 Collected
11:00									Filtered Sample LMW-10F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-12

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 0.52 gallons WELL TD: 49.3 ft PUMP INTAKE DEPTH: 47.0 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:40	46.08								Static water level
13:00									pump on
13:10	46.08								very turbid, hard to get water to pump
13:25	46.08	low	19.31	0.524	8.00	6.09	107	>1000	
13:30									stopped pumping, clogged
13:50	pump back on after cleaning and part replacement								
13:55	46.08	250	18.30	0.577	2.86	6.20	120	>1000	
14:00	46.08	250	16.18	0.674	4.56	6.03	140	110	
14:05	46.08	250	15.97	0.634	4.83	6.03	151	79.2	
14:10									stopped pumping, clogged
									pulled and cleaned
14:15								>1000	restarted pump
14:20	46.08	250	17.64	0.626	4.40	6.15	126	>1000	
14:25	46.08	250	16.91	0.694	4.97	6.00	146	185	
14:30	46.08	250	16.67	0.677	5.41	6.00	163	50.0	
14:35	46.08	250	16.55	0.662	5.50	6.00	169	32.8	
14:40	46.08	250	16.63	0.654	5.58	5.99	178	17.0	
14:45	46.08	250	16.51	0.649	5.68	6.00	182	17.5	
14:50	46.08	250	16.52	0.642	5.75	5.99	190	6.0	
14:55	46.08	250	16.50	0.635	5.76	5.99	191	3.4	
15:00	46.08	250	16.48	0.633	5.80	5.98	194	3.0	
15:05	46.08	250	16.48	0.632	5.84	5.98	193	2.7	
15:10									Unfiltered Sample LMW-12 Collected
15:12									Filtered Sample LMW-12F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-14

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 8.77 gallons WELL TD: 100 ft PUMP INTAKE DEPTH: 95 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:35	46.21								Static water level
13:00									pump on
13:10	46.21	250	20.39	0.348	6.61	5.28	179	987	
13:15	46.21	250	19.95	0.315	6.92	5.31	175	>1000	
13:20	46.21	250	20.25	0.316	6.97	5.30	178	901	
13:25	46.21	250	19.96	0.311	7.17	5.30	186	716	
13:30	46.21	250	19.83	0.283	7.12	5.33	194	481	
13:40	46.21	250	20.19	0.259	7.29	5.31	204	320	
13:50	46.21	250	19.79	0.212	7.67	5.27	217	216	
14:00	46.21	250	19.80	0.218	7.60	5.20	230	208	
14:05	46.21	250	20.12	0.219	7.52	5.20	233	187	
14:10	46.21	250	19.86	0.220	7.44	5.18	236	180	
14:15	46.21	250	20.11	0.214	6.74	5.21	240	154	
14:20	46.21	250	20.06	0.205	6.77	5.21	242	150	
14:25	46.21	250	19.83	0.206	6.80	5.21	245	127	
14:30	46.21	250	19.48	0.196	7.37	5.19	249	111	
14:35	46.21	250	19.31	0.189	7.35	5.17	253	95.7	
14:40	46.21	250	19.03	0.185	7.41	5.16	257	81.2	
14:45	46.21	250	19.03	0.184	7.39	5.16	259	76.4	
14:50	46.21	250	19.03	0.182	7.38	5.15	260	71.8	
14:55	46.21	250	19.02	0.183	7.35	5.15	260	71.0	
15:00									Unfiltered Sample LMW-14 Collected
15:15									Filtered Sample LMW-14F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-16

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 8.55 gallons WELL TD: 99.2 ft PUMP INTAKE DEPTH: 95 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:21	46.72								Static water level
10:22									pump on
10:25	46.72	200	18.77	0.161	6.35	7.69	253	236	
10:30	46.73	200	16.04	0.175	6.60	7.77	324	316	
10:35	46.73	200	15.62	0.178	6.53	4.00	346	293	
10:40	46.73	200	15.61	0.179	6.23	3.81	354	239	
10:45	46.73	200	15.57	0.178	5.98	3.74	366	225	
10:50	46.73	200	15.41	0.180	6.18	3.68	372	173	
10:55	46.73	200	14.16	0.180	6.20	3.64	376	113	
11:00	46.73	200	13.84	0.181	6.26	3.61	381	82.6	
11:05	46.73	200	13.55	0.182	6.34	3.60	382	75.1	
0.535	46.73	200	13.43	0.182	6.02	3.60	382	62.2	
11:15	46.73	200	13.38	0.183	5.97	3.55	383	57.3	
11:20	46.73	200	13.36	0.183	5.92	3.54	383	52.8	
11:20									Unfiltered Sample LMW-16 Collected
11:22									Filtered Sample LMW-16F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-18

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 16.67 gallons WELL TD: 150 ft PUMP INTAKE DEPTH: 145 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:05	47.74								Static water level
9:45									pump on
9:55	47.74	250	17.49	0.313	11.49	5.11	319	5.1	
10:05	47.74	250	17.05	0.309	12.83	5.07	332	7.0	
10:15	47.74	250	17.41	0.309	12.50	5.02	341	10.6	
10:25	47.74	250	17.61	0.313	12.50	5.02	347	34.5	
10:30	47.74	250	17.46	0.309	12.31	4.94	355	13.0	
10:35	47.74	250	17.44	0.312	12.36	4.98	356	0.2	
10:40	47.74	250	17.51	0.308	12.37	5.01	355	0.0	
10:45	47.74	250	17.48	0.307	12.42	4.96	358	0.0	
10:50									Unfiltered Sample LMW-18 Collected
10:52									Filtered Sample LMW-18F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-19

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/14/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 130.1 gallons WELL TD: 248 ft PUMP INTAKE DEPTH: 243 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:20	48.74								Static water level
9:30									pump on
9:37									Water!
9:45	48.74	250	20.84	0.194	3.24	5.40	290	0.0	
9:55	48.74	250	19.78	0.199	3.11	5.40	290	0.0	
10:05	48.74	250	19.70	0.198	2.87	5.46	288	0.0	
10:15	48.74	250	19.62	0.200	2.85	5.50	289	0.0	
10:25	48.74	250	19.83	0.200	2.86	5.53	287	0.0	
10:30	48.74	250	19.88	0.200	2.87	5.35	297	0.0	
10:35	48.74	250	19.97	0.199	2.85	5.35	292	0.0	
10:40	48.74	250	19.97	0.199	2.86	5.38	291	0.0	
10:45									Unfiltered Sample LMW-19 Collected
10:47									Filtered Sample LMW-19F Collected
									Tubing would not fit back into the well,
									bagged for later us.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-20

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1 SHEETS
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 17.08 gallons WELL TD: 150 ft PUMP INTAKE DEPTH: 145 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:50	45.24								Static water level
15:00									pump on, no water
15:20									pulled pump, replaced, got water
15:20	45.33	250	23.27	0.218	9.41	5.63	242	>1000	
15:30	45.28	250	19.05	0.237	8.94	5.46	263	>1000	
15:35	45.27	250	17.65	0.243	8.91	5.43	270	548.0	
15:40	45.25	250	19.02	0.241	8.71	5.45	273	199.0	
15:50	45.10	250	18.41	0.238	7.88	5.41	280	74.6	
15:55	45.08	250	17.71	0.241	8.37	5.41	283	52.1	
16:00	45.19	250	17.80	0.240	8.36	5.44	254	36.3	
16:05	45.20	250	18.22	0.239	8.96	5.45	287	27.2	
16:10	45.20	250	17.45	0.240	8.92	5.45	290	26.5	
16:15	45.20	250	17.36	0.240	8.97	5.44	292	26.8	
16:20	45.20	250	17.43	0.239	8.93	5.45	292	25.5	
16:25									Unfiltered Sample LMW-20 Collected
16:27									Filtered Sample LMW-20F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

AECOM

WELL NO. MW-21

WELL SAMPLING FORM	PROJECT: Liberty Industrial Finishing	PROJECT No.: 602770271	SHEET: 1 OF 1
LOCATION: Brentwood, NY		DATE WELL SAMPLED: 9/13/2017	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Jim Christopher	

ONE WELL VOLUME : 10.65 gallons WELL TD: 110.5 ft PUMP INTAKE DEPTH: 105 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
15:00	45.16								Static water level
15:10									pump on
15:20	45.00	250	32.18	0.264	4.66	5.85	233	39.0	
15:30	45.01	250	29.40	0.268	4.43	5.61	247	26.4	
15:35	45.03	250	27.81	0.275	4.98	5.62	253	20.4	
15:40	45.04	250	26.35	0.273	5.55	5.51	257	30.0	
15:50	45.08	250	25.02	0.271	5.86	5.61	244	36.4	
15:55	45.08	250	24.69	0.272	6.08	5.55	247	39.7	
16:00	45.14	250	23.78	0.274	5.52	5.52	234	48.7	
16:05	45.19	250	23.48	0.276	5.61	5.50	235	48.6	
16:10	45.19	250	23.25	0.277	5.68	5.47	234	49.3	
16:15									Unfiltered Sample LMW-21 Collected
16:17									Filtered Sample LMW-21F Collected
									1/4" (OD) poly and 1/4" (OD) poly
									bonded tubing put back into the well.

Pump Type: Bladder Pump with HDPE tubing

Analytical Parameters: TAL Metals (Total and Field Filtered), and PFAs

Appendix B

NYSDEC Monitoring Well Field Inspection Logs

SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC
DATE/TIME: 9/13/17 9:30
WEll ID.: LMW-1

MONITORING WELL FIELD INSPECTION LOG

	YES	NO
WELL VISIBLE? (If not, provide directions below)		X

WELL COORDINATES? NYTM X _____ NYTM Y _____ See Report
PDOP Reading from Trimble pathfinder: _____ Satelites: _____
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	NA	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	NA	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	NA	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	NA	

HEADSPACE READING (ppm) AND INSTRUMENT USED	NA
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	NA
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	NA

	YES	NO
LOCK PRESENT?	NA	
LOCK FUNCTIONAL?	NA	
DID YOU REPLACE THE LOCK?	NA	
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)	NA	
WELL MEASURING POINT VISIBLE?	NA	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	NA
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	NA
MEASURE WELL DIAMETER (Inches):	NA
WELL CASING MATERIAL:	NA
PHYSICAL CONDITION OF VISIBLE WELL CASING:	NA
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	NA
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	NA

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Well was not located under debris and garbage. Known to be in between two fences, not accessible by truck.
Well most likely dry since it has been historically dry with higher groundwater elevations.

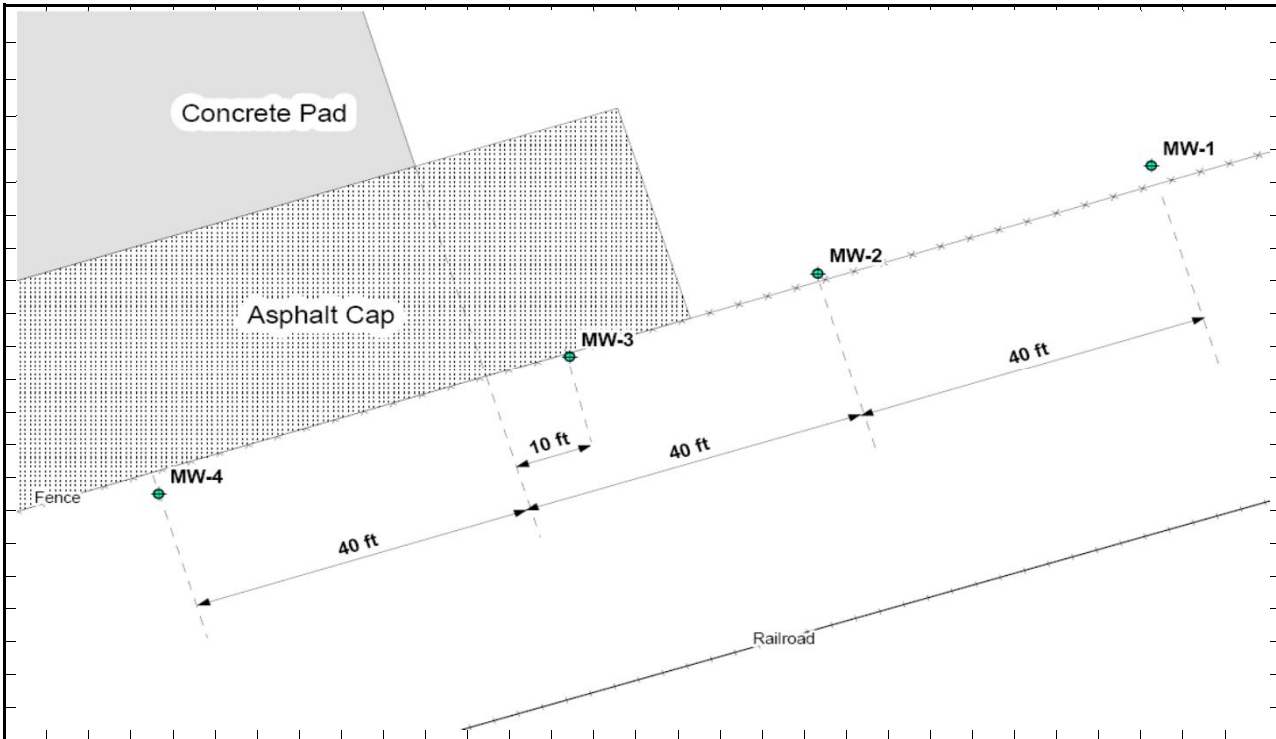
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Well is located between two fences (site fence and defunct fence section) currently full of vegatation, debris and garbage from vagrants.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped area on-site. Gas station to the west of the Site. Railroad to south.

REMARKS:
Well not located

MONITORING WELL INSPECTION LOG

SKETCH





SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 9:30
WEll ID.: LMW-2

	YES	NO
WELL VISIBLE? (If not, provide directions below)		X

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	54.12
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	47.30
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	CLOSE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
overhead lines, close to fence and railroad property

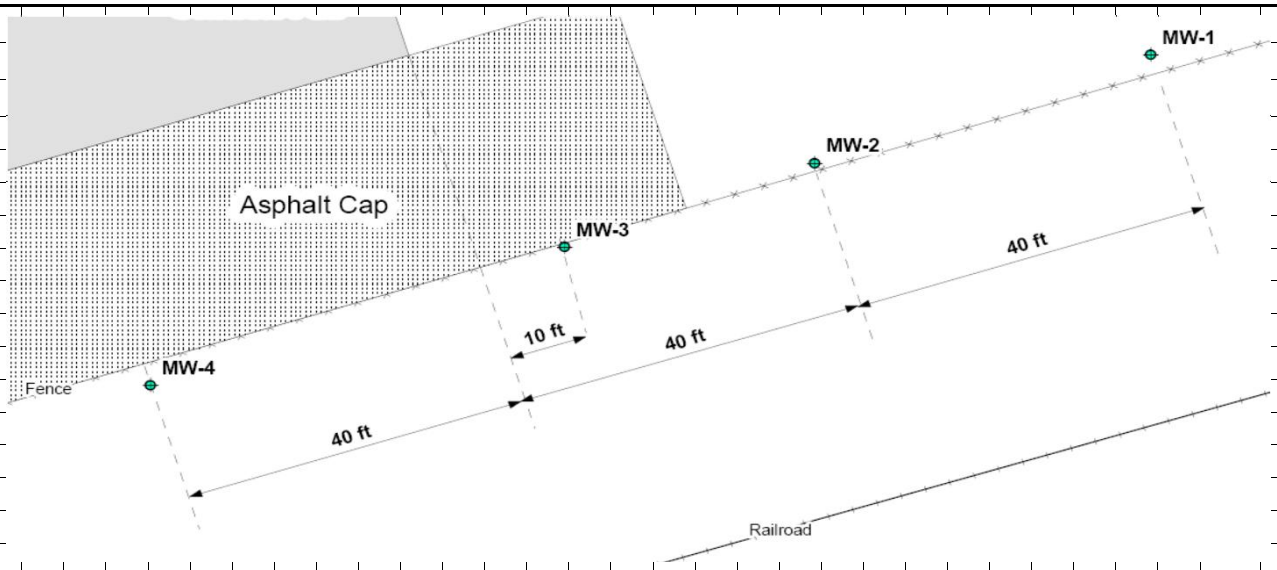
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
within site fence, surrounded by overgrown vegetation

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped area on-site. Gas station to the west of the Site. Railroad to south.

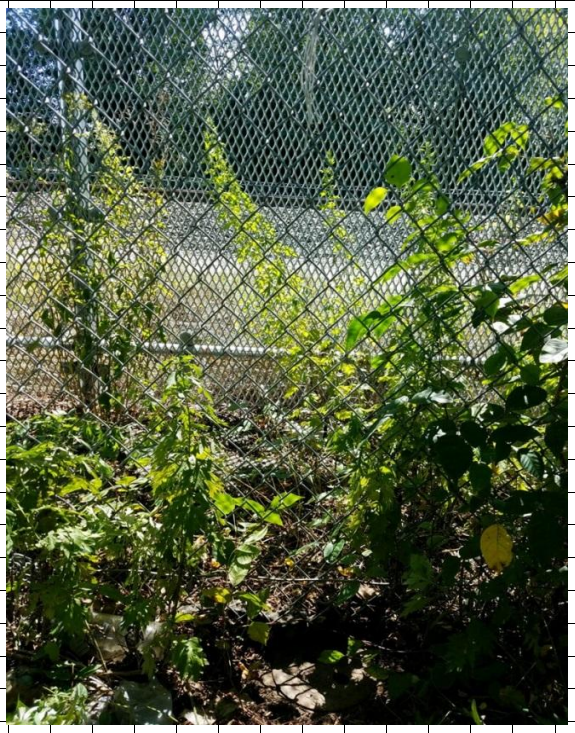
REMARKS:
New bolts needed, 1/4" poly bonded tubing left in well.
Fence marked at location with tape to aid in locating the well.

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 9:45
WEll ID.: LMW-3

	YES	NO
WELL VISIBLE? (If not, provide directions below)		X

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	53.9
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	47.26
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	CLOSE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Not accessible, in between site fence and railroad fence. Overhead lines also present.

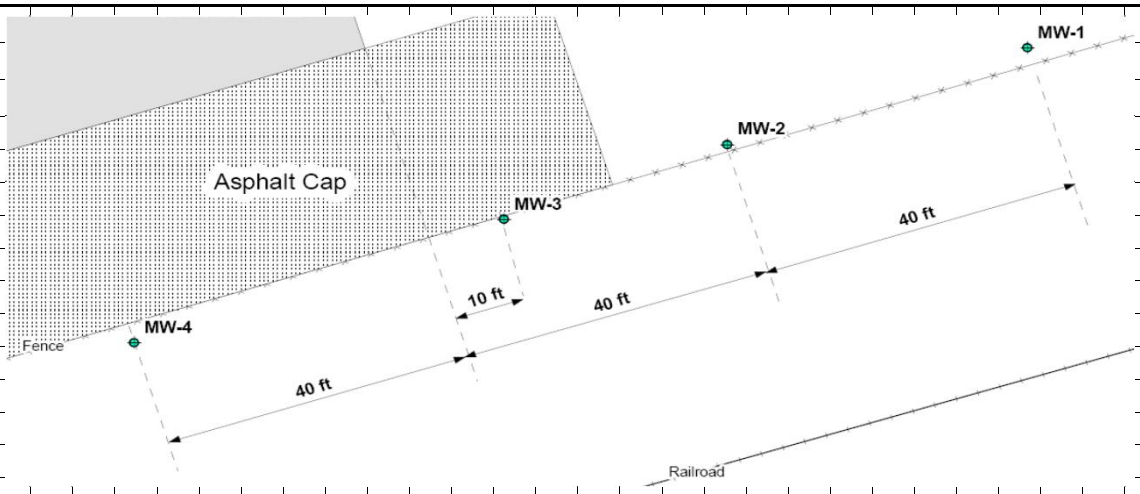
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Between site fence and railroad fence, covered by vegetation.

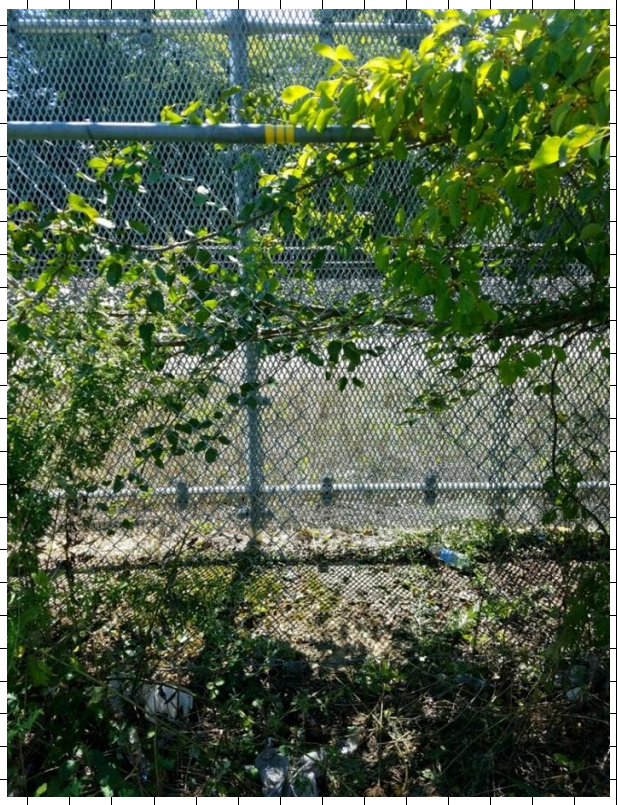
IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped area on-site. Gas station to the west of the Site. Railroad to south.

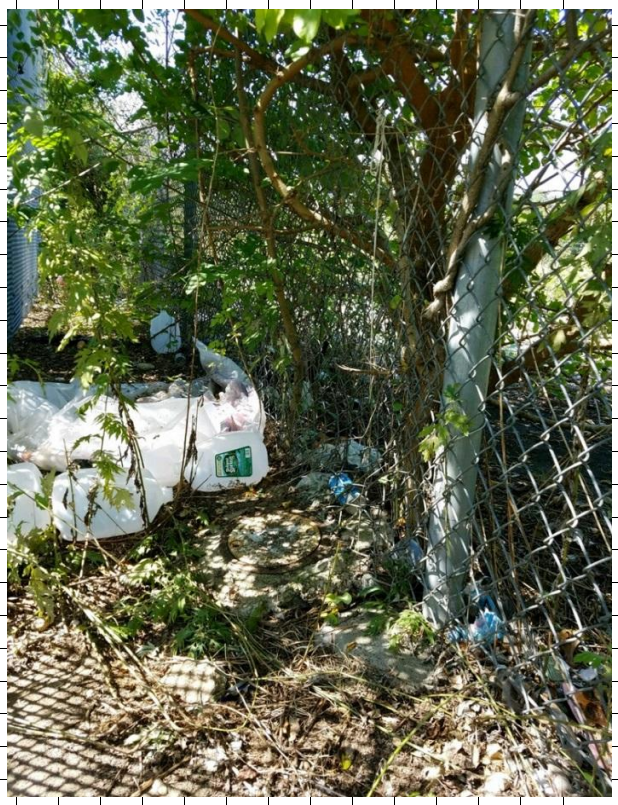
REMARKS:
New bolts needed, 1/4" poly bonded tubing left in well.
Fence marked at location with tape to aid in locating the well.

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 12:00
WEll ID.: LMW-4

	YES	NO
WELL VISIBLE? (If not, provide directions below)		X

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	53.4
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	47.61
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	CLOSE

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Not accessible, in between site fence and railroad fence. Overhead lines also present.

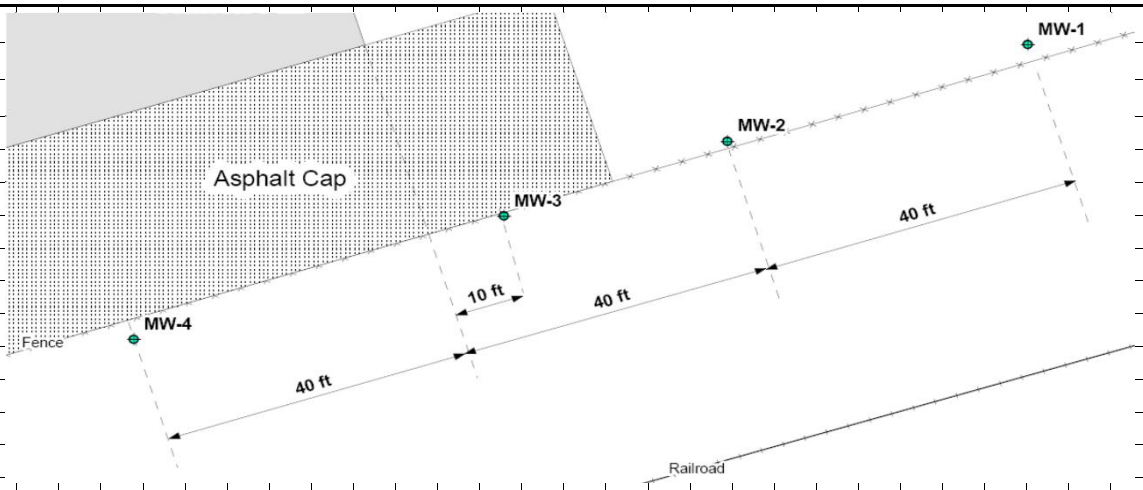
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Between site fence and railroad fence, covered by vegetation.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped area on-site. Gas station to the west of the Site. Railroad to south.

REMARKS:
New bolts needed, 1/4" poly bonded tubing left in well.
Fence marked at location with tape to aid in locating the well.

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 10:00
WEll ID.: LMW-5

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,350.98 NYTM Y 202,308.86 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?		X
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)		X
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)		X

Cap does not close properly. Lid is not flush with casing.

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	2
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	50
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	19.30
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Overgrown vegetation, accessible by truck mounted rig with some clearing.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

located in a wooded area between site concrete and fence, surrounded by overgrown vegetation

surrounded by debris and trash

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Capped area on-site. Gas station to the west of the Site. Railroad to south.

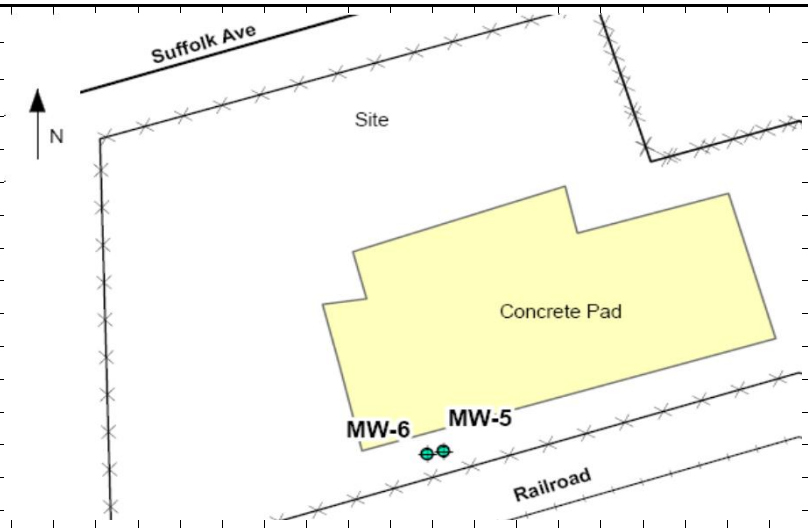
REMARKS:

Needs lock, protective casing lid needs to be fixed

1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 10:00
WEll ID.: LMW-6

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,341.15 NYTM Y 202,306.77 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?		X
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)		X
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	1
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	265
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	49.16
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	Average
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Overgrown vegetation, accessible by truck mounted rig with some clearing.

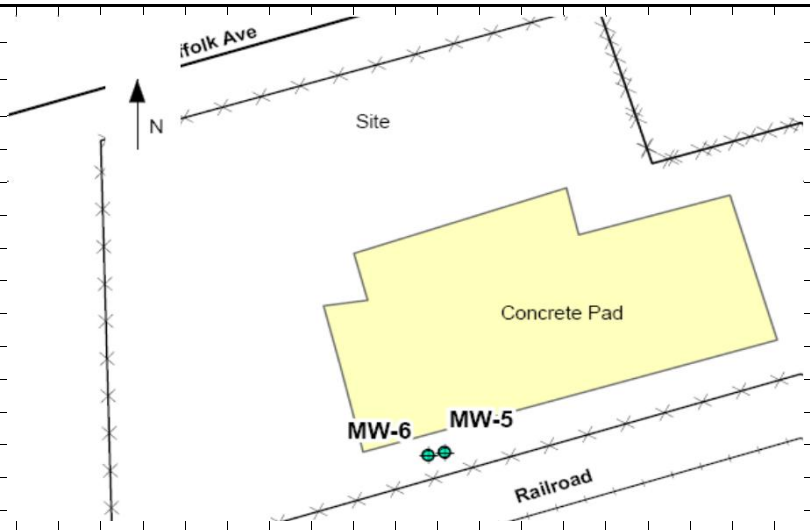
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
located in a wooded area between site concrete and fence, surrounded by overgrown vegetation
surrounded by debris and trash

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped area on-site. Gas station to the west of the Site. Railroad to south.

REMARKS:
Well J-Plug/cap is missing, needs a new one. Needs a lock.

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 10:00
WEll ID.: LMW-10

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	50.00
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	46.49
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	RUSTY
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig across ball fields.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
baseball field edge, grass
homeless dwelling on other side of fence, between field and a railroad

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
School bus parking lot, recharge Basin and railroad

REMARKS:
1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 12:30
WEll ID.: LMW-12

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,863.98 NYTM Y 201,973.43 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	49.3
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	46.08
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Located on the ROW along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Parking Lot, Street, Recharge basin across First St

REMARKS:
New bolts needed, 1/4" poly bonded tubing left in well
Well had a lot of sedimentation built up in and around the well.

MONITORING WELL INSPECTION LOG

SKETCH





SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 12:30
WEll ID.: LMW-14

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,866.03 NYTM Y 201,966.33 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	100
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	46.21
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	Cracked
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Located on the ROW along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Parking Lot, Street, Recharge basin across First St

REMARKS:
PVC cracked and new bolts needed, 1/4" poly bonded tubing left in well
Well had a lot of sedimentation built up in and around the well.

MONITORING WELL INSPECTION LOG

SKETCH





SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 10:20
WEll ID.: LMW-16

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	99.2
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	46.72
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig across ball fields.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
baseball field edge, grass

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
School bus parking lot, recharge Basin and railroad
homeless dwelling on other side of fence, between field and a railroad

REMARKS:
1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 9:00
WEll ID.: LMW-18

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,386.65 NYTM Y 202,102.30 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	150
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	47.74
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck

Accessed through second gate.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower, within fence that surrounds the recharge basin.

Due to overgrown grass, wells were located with some difficultly.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

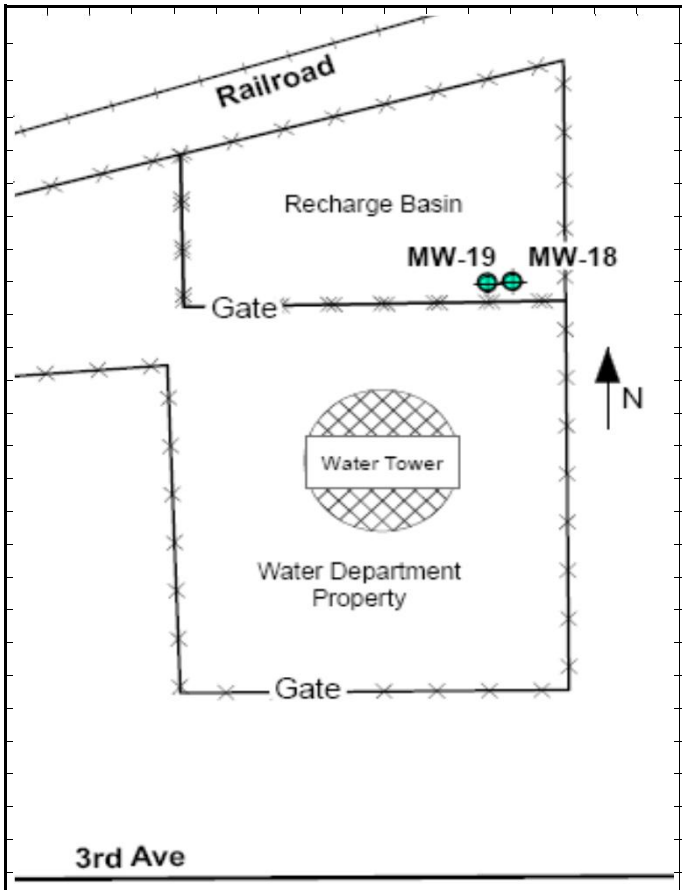
Recharge/Discharge Basin. Railroad to north.

REMARKS:

1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH









SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/14/17 9:00
WEll ID.: LMW-19

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,373.86 NYTM Y 202,101.70 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	248
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	48.74
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck
Accessed through second gate.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower, within fence that surrounds the recharge basin.
Due to overgrown grass, wells were located with some difficultly.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

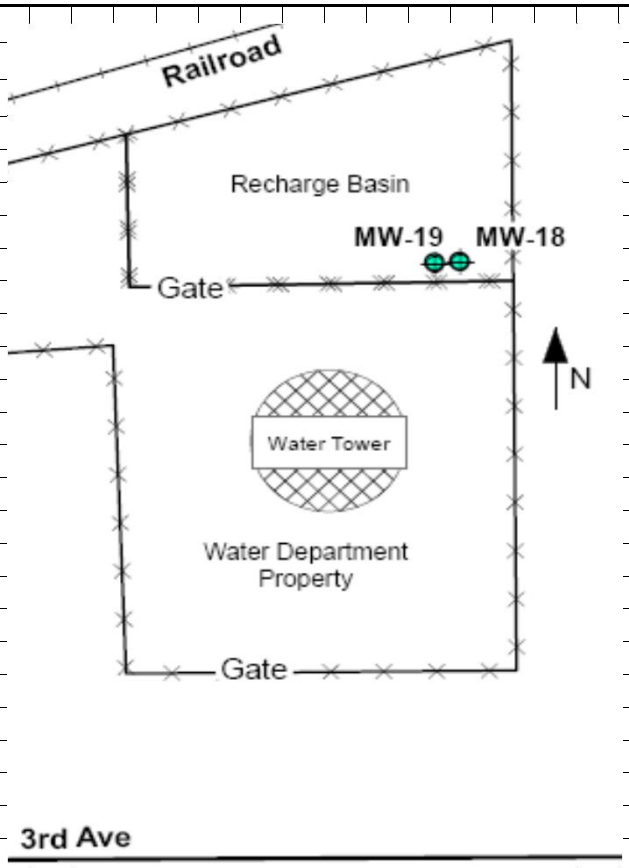
Recharge/Discharge Basin. Railroad to north.

REMARKS:

New tubing (3/8" x 1/4" bonded) would not go back in well, coiled and bagged.

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 15:00
WEll ID.: LMW-20

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,946.09 NYTM Y 201,798.92 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	150
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	45.33
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Grassy area in right of way along 3rd Ave
Hard to locate well under grass

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Road, Recharge Basin

REMARKS:
New bolts needed
1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH







SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/JC

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 9/13/17 15:00
WEll ID.: LMW-21

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	6

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	110.5
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	45.16
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Grassy area in right of way along 3rd Ave

Sedimentation build up inside well casing and red ants.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Road, Recharge Basin

REMARKS:

New bolts needed

1/4" poly bonded tubing left in well

MONITORING WELL INSPECTION LOG

SKETCH







Appendix C

Site Inspection Form

AECOM

SITE INSPECTION FORM

Liberty Industrial Finishing Site
550 Suffolk Ave, Brentwood, Suffolk County, NY
NYSDEC Site ID # 1-52-108

Client: New York State Department of Environmental Conservation

Preparer's Name: Celeste Foster Date/Time: 9/13/2017, 13:00

Asphalt Cap

Has the condition of the asphalt degraded since the last inspection?	☐ YES	■ NO	☐ NA
Are any cracks visible in the asphalt pavement?	■ YES	☐ NO	☐ NA
Is there evidence of uneven settling and or ponding?	☐ YES	■ NO	☐ NA
Is there damage to any surface coverage?	☐ YES	■ NO	☐ NA

Fence

Are there any breaks in the perimeter fence?	■ YES	☐ NO	☐ NA
Are there any damaged or bent posts?	■ YES	☐ NO	☐ NA
Are the "No Trespassing" signs missing or damaged?	☐ YES	■ NO	☐ NA
Is the Suffolk Avenue gate damaged or bent?	☐ YES	■ NO	☐ NA
Is the Suffolk Avenue locked?	☐ YES	■ NO	☐ NA
Is the gate padlock damaged or in poor condition?	■ YES	☐ NO	☐ NA

Site Condition

Is there any evidence of illegal disposal?	■ YES	☐ NO	☐ NA
Is there uncontrolled vegetation growth?	■ YES	☐ NO	☐ NA
Is there any evidence of unauthorized entry?	■ YES	☐ NO	☐ NA

If yes to any question above, provide additional information below.

There are cracks in the asphalt pavement, there does not appear to be settling or ponding or damage to the surface coverage. The condition is the same as the last inspection.

The site security has been compromised by trespassers. There are two groups that appear to regularly trespass onto the site. One group is young skateboarders who have set up a skate park and the other group is vagrants who are possibly homeless. Trash/debris has been scattered around the site.

The new owner has removed the gate and put large cement blocks which can be removed for heavy equipment entry.

The new owner has been clearing the Site but there is still uncontrolled vegetation.

The new owner has dug a hole along the concrete slab to determine the thickness of the slab.

The new owners contact information is Nick 631-782-9222.





Hole next to slab



Evidence of trespassers



Gate removed

Site Photos















Site Photos (cont.)











Site Photos (cont.)













Appendix D

Laboratory Data Summary Packages

Hampton-Clarke
Analytical & Field Services

175 ROUTE 46 WEST, UNIT D · FAIRFIELD, NJ 07004
2 MADISON ROAD, FAIRFIELD, NJ 07004
800-426-9992 · 973-244-9770
FAX: 973-244-9787
WWW.HCVLAB.COM

Project: Multi Site G Liberty

Client PO: 60277021

Report To: AECOM
100 Red School House Rd.
Suite B-1
Chestnut Ridge, NY 10977

Attn: Paul Kareth

Received Date: 9/15/2017

Report Date: 10/6/2017

Deliverables: NYDOH-CatA

Lab ID: AD00074

Lab Project No: 7091521

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) NY (ELAP11408) CT (PH-0671)
PA (68-00463) KY (90124)

Hampton-Clarke
Analytical & Field Services

THIS CATEGORY "A" REPORT
IS NUMBERED FROM
1 to 140

(Subcontracted data is numbered as attached)

HC Case Narrative

Client: AECOM **HC Project:** 7091521
Project: Multi Site G Liberty

Hampton-Clarke (HC) received the following samples on 09/15/2017:

Client ID	HC Sample ID	Matrix	Analysis
LMW-2	AD00074-001	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-2F	AD00074-002	Aqueous	Metals (6010C/6020A/7470A)
LMW-3	AD00074-003	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-3F	AD00074-004	Aqueous	Metals (6010C/6020A/7470A)
LMW-4	AD00074-005	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-4F	AD00074-006	Aqueous	Metals (6010C/6020A/7470A)
LMW-5	AD00074-007	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-5 MS	AD00074-008	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-5 MSD	AD00074-009	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-5F	AD00074-010	Aqueous	Metals (6010C/6020A/7470A)
LMW-5F MS	AD00074-011	Aqueous	Metals (6010C/6020A/7470A)
LMW-5F MSD	AD00074-012	Aqueous	Metals (6010C/6020A/7470A)
LMW-6	AD00074-013	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-6F	AD00074-014	Aqueous	Metals (6010C/6020A/7470A)
LMW-53	AD00074-015	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-53 F	AD00074-016	Aqueous	Metals (6010C/6020A/7470A)
LFB-20170913	AD00074-017	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-21	AD00074-018	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-21 F	AD00074-019	Aqueous	Metals (6010C/6020A/7470A)
LMW-20	AD00074-020	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-20 F	AD00074-021	Aqueous	Metals (6010C/6020A/7470A)
LMW-19	AD00074-022	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-19 F	AD00074-023	Aqueous	Metals (6010C/6020A/7470A)
LMW-18	AD00074-024	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-18 F	AD00074-025	Aqueous	Metals (6010C/6020A/7470A)
LMW-16	AD00074-026	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-16 F	AD00074-027	Aqueous	Metals (6010C/6020A/7470A)
LMW-10	AD00074-028	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-10 F	AD00074-029	Aqueous	Metals (6010C/6020A/7470A)
LMW-12	AD00074-030	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-12F	AD00074-031	Aqueous	Metals (6010C/6020A/7470A)
LMW-14	AD00074-032	Aqueous	Metals (6010C/6020A/7470A), *PFAs Mod 20 Compounds (537 mod)
LMW-14 F	AD00074-033	Aqueous	Metals (6010C/6020A/7470A)

* - Indicates analysis was performed by a subcontracted laboratory.

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.

Metals Analysis:

The Post Spike for batch 61406 had recoveries outside QC limits. Please refer to the applicable Form 5/7 for the recoveries.

The serial dilution for batches 61406 and 61407 is outside QC limits for one or more analytes. Please refer to the applicable Form 6/9 for the recoveries.

Subcontracted Analysis:

Please refer to attached subcontracted laboratory report. Samples AD00074-001, -003, -005, -007, -013, -015, -017, -018, -020, -022, -024, -026, -028, -030, and -032 were submitted to SGS Accutest for PFAs (537 Mod) analysis.

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	10/6/2017 Date

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 Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

Hampton-Clarke WBE/DBE/SBE 800-426-9992

A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 7091521

Page 1 of 3

7091521 0003

3) Reporting Requirements (Please Circle)

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

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: AECOM
Address: 100 Redschoolhouse Rd
Chestnut Ridge NY
1b) Email/Cell/Fax/Ph: Paul.Kareth@aecom.com
1c) Send Invoice to: Paul Kareth
1d) Send Report to: Paul Kareth

Project Information

2a) Project: Multi Site G
LIBERTY
2b) Project Mgr: Sheree Baker
2c) Project Location (City/State): BRENTWOOD NY
2d) Quote/PO # (If Applicable): 60277021

FOR LAB USE ONLY

Batch # A900074

===> Check If Contingent ===>

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)

7) Analysis (specify methods & parameter lists)

<=== Check If Contingent <===

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	TAL Metals	PFAS	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other: TRIZMA	9) Comments
001	LMW-2	GW	9/13/17	1045		✓	✓	✓							1	2	
002	LMW-2F			1047		✓	✓	✓							1		Field Filtered
003	LMW-3			1035		✓	✓	✓							1	2	
004	LMW-3F			1237		✓	✓	✓							1		Field Filtered
005	LMW-4			800		✓	✓	✓							1	2	
006	LMW-4F			1302		✓	✓	✓							1		Field Filtered
007/008/009	LMW-5			1110		✓	✓	✓							3	6	+ MS/MSD
010/011/012	LMW-5F			1112		✓	✓	✓							1		+ MS/MSD Field Filtered
013	LMW-6			1215		✓	✓	✓							1	2	
014	LMW-6F		↓	1217		✓	✓								1		Field Filtered

10) Relinquished by:	Accepted by:	Date	Time
		9/15/17	11:00
		9/15/17	1:10

11) Sampler (print name): Date:

Additional Notes

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

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 2.0 3.1 2.9

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#

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Hampton-Clarke WBE/DBE/SBE 800-426-9992

A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 709521

7091521 0004

3) Reporting Requirements (Please Circle)

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

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: AECOM
Address: 100 Red schoolhouse Rd
Chestnut Ridge NY
1b) Email/Cell/Fax/Ph: Paul.Kareth@aecom.com
1c) Send Invoice to: Paul Kareth
1d) Send Report to: Paul Kareth

Project Information

2a) Project: Multi Site GJ LIBERTY
2b) Project Mgr: Paul Kareth
2c) Project Location (City/State): NY Brentwood
2d) Quote/PO # (If Applicable): 60277021

FOR LAB USE ONLY ↓

Batch # A700074

===> Check If Contingent ===>

<===> Check If Contingent <===

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)

7) Analysis (specify methods & parameter lists)

8) # of Bottles

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	TAL Metals	PFAS	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other: TKN, NH3	9) Comments
015	LMW-53	GW	9/13/17	1212		✓	✓	✓							1	2	
016	LMW-53F	GW	9/13/17	1214		✓	✓								1		Field Filtered
017	LFB-20170913	OT	9/13/17	1150		✓	✓	✓							1	2	Field Blank
018	LMW-21	GW	9/13/17	1615		✓	✓	✓							1	2	
019	LMW-21F	↓	↓	1617		✓	✓								1		Field Filtered
020	LMW-20			1625		✓	✓	✓							1	2	
021	LMW-20F			1627		✓	✓								1		Field Filtered
022	LMW-19	GW	9/14/17	1045											1	2	
023	LMW-19F	↓	↓	1047											1		
024	LMW-18			1050											1	2	

10) Relinquished by:	Accepted by:	Date	Time
		9/15/17	11:00
		9/15/17	1:10

11) Sampler (print name): Date:

Additional Notes

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

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature

Please note NUMBERED items. If not completed your analytical work may be delayed.
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Internal use: sampling plan (check box) HC [ ] or client [ ] FSP#

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Hampton-Clarke WBE/DBE/SBE 800-426-9992

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 7091521

Page 3 of 3

7091521 0005

1) Customer Information

1a) Customer: AECOM

Address: 100 Red Schoolhouse Rd Chestnut Ridge NY

1b) Email/Cell/Fax/Ph: Paul.Kareth@aecom.com

1c) Send Invoice to: KGareth

1d) Send Report to: KGareth

2) Project Information

2a) Project: multi Site G LIBERTY

2b) Project Mgr: Paul Kareth

2c) Project Location (City/State): Brentwood NY

2d) Quote/PO # (If Applicable): 60277021

3) Reporting Requirements (Please Circle)

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

* Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY

Batch #: A900074

===> Check If Contingent ===>

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)

7) Analysis (specify methods & parameter lists)

<=== Check If Contingent <===

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	TAL Metals	PFAS	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other: TRIZMA	9) Comments
025	LMW-18F	GW	9/14/17	1052		✓	✓								1		Field Filt.
026	LMW-16			1120		✓	✓	✓							1	2	
027	LMW-16F			1122		✓	✓								1		Field Filt.
028	LMW-10			1058		✓	✓	✓							1	2	
029	LMW-10F			1100		✓	✓								1		Field Filt.
030	LMW-12			1510		✓	✓	✓							1	2	
031	LMW-12F			1512		✓	✓	✓							1		Field Filt
032	LMW-14			1500		✓	✓	✓							1	2	
033	LMW-14F	↓	↓	1502		✓	✓								1		Field Filt.

10) Relinquished by:	Accepted by:	Date	Time
		9/15/17	11:00
		9/15/17	1:10

11) Sampler (print name): Date:

Additional Notes

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

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature

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#

CONDITION UPON RECEIPT

Batch Number AD00074 Entered By: Ricardo
Date Entered 9/15/2017 1:52:00 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). 2.0,3.1,2.9
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 AD00074 Entered By: Ricardo

Date Entered 9/15/2017 1:53:00 PM

Lab#:	Container Size	Container/Vial Check	Parameter	Preservative	Preservative Lot#	PH	pH Lot#
AD00074-001	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-002	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-003	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-004	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-005	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-006	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-007	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-008	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-009	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-010	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-011	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-012	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-013	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-014	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-015	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-016	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-017	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-018	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-019	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-020	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-021	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-022	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-023	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-024	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-025	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-026	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-027	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-028	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-029	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-030	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-031	1L	P	FF METALS	HNO3	169331	1	HC693124
AD00074-032	1L	P	METALS	HNO3	169331	1	HC693124
AD00074-033	1L	P	FF METALS	HNO3	169331	1	HC693124

Internal Chain of Custody

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AD00074-001	09/15/17 13:10	RICAR	0	M	Received
AD00074-001	09/15/17 13:49	RICAR	0	M	Login
AD00074-001	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-001	09/19/17 16:54	R12	1	A	NONE
AD00074-001	09/18/17 11:54	SUB	2	A	FD
AD00074-001	09/18/17 11:54	SUB	3	A	FD
AD00074-002	09/15/17 13:10	RICAR	0	M	Received
AD00074-002	09/15/17 13:49	RICAR	0	M	Login
AD00074-002	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-002	09/19/17 16:54	R12	1	A	NONE
AD00074-003	09/15/17 13:10	RICAR	0	M	Received
AD00074-003	09/15/17 13:49	RICAR	0	M	Login
AD00074-003	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-003	09/19/17 16:54	R12	1	A	NONE
AD00074-003	09/18/17 11:54	SUB	2	A	FD
AD00074-003	09/18/17 11:54	SUB	3	A	FD
AD00074-004	09/15/17 13:10	RICAR	0	M	Received
AD00074-004	09/15/17 13:49	RICAR	0	M	Login
AD00074-004	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-004	09/19/17 16:54	R12	1	A	NONE
AD00074-005	09/15/17 13:10	RICAR	0	M	Received
AD00074-005	09/15/17 13:49	RICAR	0	M	Login
AD00074-005	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-005	09/19/17 16:54	R12	1	A	NONE
AD00074-005	09/18/17 11:54	SUB	2	A	FD
AD00074-005	09/18/17 11:54	SUB	3	A	FD
AD00074-006	09/15/17 13:10	RICAR	0	M	Received
AD00074-006	09/15/17 13:49	RICAR	0	M	Login
AD00074-006	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-006	09/19/17 16:54	R12	1	A	NONE
AD00074-007	09/15/17 13:10	RICAR	0	M	Received
AD00074-007	09/15/17 13:49	RICAR	0	M	Login
AD00074-007	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-007	09/19/17 16:54	R12	1	A	NONE
AD00074-007	09/18/17 11:54	SUB	2	A	FD
AD00074-007	09/18/17 11:54	SUB	3	A	FD
AD00074-008	09/15/17 13:10	RICAR	0	M	Received
AD00074-008	09/15/17 13:49	RICAR	0	M	Login
AD00074-008	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-008	09/19/17 16:54	R12	1	A	NONE
AD00074-008	09/18/17 11:54	SUB	2	A	FD
AD00074-008	09/18/17 11:54	SUB	3	A	FD
AD00074-009	09/15/17 13:10	RICAR	0	M	Received
AD00074-009	09/15/17 13:49	RICAR	0	M	Login
AD00074-009	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-009	09/19/17 16:54	R12	1	A	NONE
AD00074-009	09/18/17 11:54	SUB	2	A	FD
AD00074-009	09/18/17 11:54	SUB	3	A	FD
AD00074-010	09/15/17 13:10	RICAR	0	M	Received
AD00074-010	09/15/17 13:49	RICAR	0	M	Login
AD00074-010	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-010	09/20/17 14:03	R12	1	A	NONE
AD00074-011	09/15/17 13:10	RICAR	0	M	Received
AD00074-011	09/15/17 13:49	RICAR	0	M	Login
AD00074-011	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-011	09/20/17 14:03	R12	1	A	NONE
AD00074-012	09/15/17 13:10	RICAR	0	M	Received
AD00074-012	09/15/17 13:49	RICAR	0	M	Login
AD00074-012	09/20/17 12:01	OA	2	A	tdwi/hg
AD00074-012	09/20/17 14:03	R12	2	A	NONE
AD00074-013	09/15/17 13:10	RICAR	0	M	Received
AD00074-013	09/15/17 13:49	RICAR	0	M	Login
AD00074-013	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-013	09/19/17 16:54	R12	1	A	NONE
AD00074-013	09/18/17 11:54	SUB	2	A	FD
AD00074-013	09/18/17 11:54	SUB	3	A	FD
AD00074-014	09/15/17 13:10	RICAR	0	M	Received
AD00074-014	09/15/17 13:49	RICAR	0	M	Login
AD00074-014	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-014	09/19/17 16:54	R12	1	A	NONE
AD00074-015	09/15/17 13:10	RICAR	0	M	Received
AD00074-015	09/15/17 13:49	RICAR	0	M	Login
AD00074-015	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-015	09/19/17 16:54	R12	1	A	NONE
AD00074-015	09/18/17 11:54	SUB	2	A	FD
AD00074-015	09/18/17 11:54	SUB	3	A	FD
AD00074-016	09/15/17 13:10	RICAR	0	M	Received
AD00074-016	09/15/17 13:49	RICAR	0	M	Login
AD00074-016	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-016	09/19/17 16:54	R12	1	A	NONE
AD00074-017	09/15/17 13:10	RICAR	0	M	Received
AD00074-017	09/15/17 13:49	RICAR	0	M	Login
AD00074-017	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-017	09/19/17 16:54	R12	1	A	NONE
AD00074-017	09/18/17 11:54	SUB	2	A	FD
AD00074-017	09/18/17 11:54	SUB	3	A	FD
AD00074-018	09/15/17 13:10	RICAR	0	M	Received
AD00074-018	09/15/17 13:49	RICAR	0	M	Login
AD00074-018	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-018	09/19/17 16:54	R12	1	A	NONE
AD00074-018	09/18/17 11:54	SUB	2	A	FD
AD00074-018	09/18/17 11:54	SUB	3	A	FD
AD00074-019	09/15/17 13:10	RICAR	0	M	Received
AD00074-019	09/15/17 13:49	RICAR	0	M	Login
AD00074-019	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-019	09/19/17 16:54	R12	1	A	NONE
AD00074-020	09/15/17 13:10	RICAR	0	M	Received
AD00074-020	09/15/17 13:49	RICAR	0	M	Login
AD00074-020	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-020	09/19/17 16:54	R12	1	A	NONE
AD00074-020	09/18/17 11:54	SUB	2	A	FD
AD00074-020	09/18/17 11:54	SUB	3	A	FD
AD00074-021	09/15/17 13:10	RICAR	0	M	Received
AD00074-021	09/15/17 13:49	RICAR	0	M	Login
AD00074-021	09/19/17 13:09	OA	1	A	TDWI/HG
AD00074-021	09/19/17 16:54	R12	1	A	NONE
AD00074-022	09/15/17 13:10	RICAR	0	M	Received
AD00074-022	09/15/17 13:49	RICAR	0	M	Login
AD00074-022	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-022	09/20/17 14:03	R12	1	A	NONE
AD00074-022	09/18/17 11:54	SUB	2	A	FD
AD00074-022	09/18/17 11:54	SUB	3	A	FD
AD00074-023	09/15/17 13:10	RICAR	0	M	Received
AD00074-023	09/15/17 13:49	RICAR	0	M	Login
AD00074-023	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-023	09/20/17 14:03	R12	1	A	NONE
AD00074-024	09/15/17 13:10	RICAR	0	M	Received
AD00074-024	09/15/17 13:49	RICAR	0	M	Login
AD00074-024	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-024	09/20/17 14:03	R12	1	A	NONE
AD00074-024	09/18/17 11:54	SUB	2	A	FD
AD00074-024	09/18/17 11:54	SUB	3	A	FD
AD00074-025	09/15/17 13:10	RICAR	0	M	Received
AD00074-025	09/15/17 13:49	RICAR	0	M	Login
AD00074-025	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-025	09/20/17 14:03	R12	1	A	NONE
AD00074-026	09/15/17 13:10	RICAR	0	M	Received
AD00074-026	09/15/17 13:49	RICAR	0	M	Login
AD00074-026	09/18/17 11:54	SUB	1	A	FD
AD00074-026	09/18/17 11:54	SUB	2	A	FD
AD00074-026	09/20/17 12:01	OA	3	A	tdwi/hg
AD00074-026	09/20/17 14:03	R12	3	A	NONE
AD00074-027	09/15/17 13:10	RICAR	0	M	Received
AD00074-027	09/15/17 13:49	RICAR	0	M	Login
AD00074-027	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-027	09/20/17 14:03	R12	1	A	NONE
AD00074-028	09/15/17 13:10	RICAR	0	M	Received
AD00074-028	09/15/17 13:49	RICAR	0	M	Login
AD00074-028	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-028	09/20/17 14:03	R12	1	A	NONE
AD00074-028	09/18/17 11:54	SUB	2	A	FD
AD00074-028	09/18/17 11:54	SUB	3	A	FD
AD00074-029	09/15/17 13:10	RICAR	0	M	Received
AD00074-029	09/15/17 13:49	RICAR	0	M	Login
AD00074-029	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-029	09/20/17 14:03	R12	1	A	NONE
AD00074-030	09/15/17 13:10	RICAR	0	M	Received
AD00074-030	09/15/17 13:49	RICAR	0	M	Login
AD00074-030	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-030	09/20/17 14:03	R12	1	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

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AD00074-030	09/18/17 11:54	SUB	2	A	FD
AD00074-030	09/18/17 11:54	SUB	3	A	FD
AD00074-031	09/15/17 13:10	RICAR	0	M	Received
AD00074-031	09/15/17 13:49	RICAR	0	M	Login
AD00074-031	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-031	09/20/17 14:03	R12	1	A	NONE
AD00074-032	09/15/17 13:10	RICAR	0	M	Received
AD00074-032	09/15/17 13:49	RICAR	0	M	Login
AD00074-032	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-032	09/20/17 14:03	R12	1	A	NONE
AD00074-032	09/18/17 11:54	SUB	2	A	FD
AD00074-032	09/18/17 11:54	SUB	3	A	FD
AD00074-033	09/15/17 13:10	RICAR	0	M	Received
AD00074-033	09/15/17 13:49	RICAR	0	M	Login
AD00074-033	09/20/17 12:01	OA	1	A	tdwi/hg
AD00074-033	09/20/17 14:03	R12	1	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis

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

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-001 **Sample ID: LMW-2**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:35	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 17:36	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:27	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:35	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:38	PC

Lab#: AD00074-002 **Sample ID: LMW-2F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:36	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:31	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:39	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:43	PC

Lab#: AD00074-003 **Sample ID: LMW-3**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:37	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 18:07	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:42	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:34	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:47	PC

Lab#: AD00074-004 **Sample ID: LMW-3F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:42	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:37	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:46	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:51	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-005 **Sample ID: LMW-4**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:43	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 18:37	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:40	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:49	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:55	PC

Lab#: AD00074-006 **Sample ID: LMW-4F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:45	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:44	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:53	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:59	PC

Lab#: AD00074-007 **Sample ID: LMW-5**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:28	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 19:08	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:16	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 18:26	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 15:55	PC

Lab#: AD00074-008 **Sample ID: LMW-5 MS**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:31	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 19:39	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 18:33	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:23	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:08	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-009 **Sample ID: LMW-5 MSD**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:33	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 20:09	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:28	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 18:36	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 16:13	PC

Lab#: AD00074-010 **Sample ID: LMW-5F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 15:47	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 13:29	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 15:24	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 15:24	PC

Lab#: AD00074-011 **Sample ID: LMW-5F MS**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 15:50	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 13:35	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 15:31	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 15:37	PC

Lab#: AD00074-012 **Sample ID: LMW-5F MSD**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 15:52	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 13:39	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 15:35	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 15:42	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-013 **Sample ID: LMW-6**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:46	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 20:40	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:56	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 13:08	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:04	PC

Lab#: AD00074-014 **Sample ID: LMW-6F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:47	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:59	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 13:11	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:08	PC

Lab#: AD00074-015 **Sample ID: LMW-53**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:49	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 21:11	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 13:15	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 20:03	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:12	PC

Lab#: AD00074-016 **Sample ID: LMW-53 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:50	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 20:06	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 13:18	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:33	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-017 **Sample ID: LFB-20170913**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:51	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 22:12	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 13:22	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 20:09	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:37	PC

Lab#: AD00074-018 **Sample ID: LMW-21**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:53	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 22:43	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 18:54	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:52	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:41	PC

Lab#: AD00074-019 **Sample ID: LMW-21 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:54	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 18:57	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:56	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:45	PC

Lab#: AD00074-020 **Sample ID: LMW-20**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 16:59	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 23:13	SGS Accutest
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:00	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 11:59	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:50	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-021 **Sample ID: LMW-20 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/19/17 13:00	olufemi	EPA 7470A	9/20/17 17:00	OA
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/20/17 19:04	SRB
TAL Metals 6010	3005&10/3050	09/19/17 13:00	olufemi	EPA 6010C	9/21/17 12:02	SRB
TAL Metals 6020	3005&10/3050	09/19/17 13:00	olufemi	EPA 6020A	9/20/17 17:54	PC

Lab#: AD00074-022 **Sample ID: LMW-19**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 15:54	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/26/17 23:44	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:02	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:00	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:08	PC

Lab#: AD00074-023 **Sample ID: LMW-19 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 15:56	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:06	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:04	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:12	PC

Lab#: AD00074-024 **Sample ID: LMW-18**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:00	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/27/17 00:15	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:09	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:07	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:16	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-025 **Sample ID: LMW-18 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:02	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:10	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:12	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:20	PC

Lab#: AD00074-026 **Sample ID: LMW-16**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:03	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/27/17 00:46	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:16	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:14	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:24	PC

Lab#: AD00074-027 **Sample ID: LMW-16 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:05	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:17	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:19	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:28	PC

Lab#: AD00074-028 **Sample ID: LMW-10**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:06	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/27/17 01:16	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:41	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:43	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:32	PC

Laboratory Chronicle

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Lab#: AD00074-029 **Sample ID: LMW-10 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:08	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:46	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:44	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:37	PC

Lab#: AD00074-030 **Sample ID: LMW-12**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:09	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/27/17 01:47	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:47	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:50	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 16:41	PC

Lab#: AD00074-031 **Sample ID: LMW-12F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:11	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:53	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:51	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 17:02	PC

Lab#: AD00074-032 **Sample ID: LMW-14**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:12	OA
PFAs EPA537 Mod 20 compounds	SolidPhase	09/25/17 19:10		EPA 537 mod	9/27/17 02:18	SGS Accutest
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:54	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 16:57	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 17:06	PC

Laboratory Chronicle

Client: AECOM

HC Project #: 7091521

Project: Multi Site G Liberty

Lab#: AD00074-033 **Sample ID: LMW-14 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Mercury (Water) 7470A	EPA 7470A	09/20/17 13:15	olufemi	EPA 7470A	9/25/17 16:17	OA
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 14:58	SRB
TAL Metals 6010	3005&10/3050	09/20/17 12:40	olufemi	EPA 6010C	9/22/17 17:00	SRB
TAL Metals 6020	3005&10/3050	09/20/17 12:40	olufemi	EPA 6020A	9/21/17 17:10	PC

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.

HC Report of Analysis

Client: AECOM **HC Project #:** 7091521

Project: Multi Site G Liberty

Sample ID: LMW-2 **Collection Date:** 9/13/2017
Lab#: AD00074-001 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**32000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**5500**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**25000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**2.9**
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: LMW-2F
Lab#: AD00074-002
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**34000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**5800**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**26000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**3.2**
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: LMW-3
Lab#: AD00074-003
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**240**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**23000**
Chromium	**1**	**ug/l**	**50**	**67**
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**350**
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**32000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**9.6**
Cobalt	1	ug/l	2.0	ND
Lead	**1**	**ug/l**	**3.0**	**3.9**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-3F
Lab#: AD00074-004
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**23000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**33000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**8.5**
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: LMW-4 | **Collection Date:** 9/13/2017
Lab#: AD00074-005 | **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**360**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**24000**
Chromium	**1**	**ug/l**	**50**	**110**
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**430**
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**8900**
Vanadium	1	ug/l	50	ND
Zinc	**1**	**ug/l**	**50**	**180**

TAL Metals 6020

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**	**95**
Cobalt	1	ug/l	2.0	ND
Lead	**1**	**ug/l**	**3.0**	**4.3**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-4F
Lab#: AD00074-006
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**23000**
Chromium	**1**	**ug/l**	**50**	**90**
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	**1**	**ug/l**	**5000**	**5000**
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**12000**
Vanadium	1	ug/l	50	ND
Zinc	**1**	**ug/l**	**50**	**140**

TAL Metals 6020

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**	**80**
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: LMW-5 **Collection Date:** 9/13/2017
Lab#: AD00074-007 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**220**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**17000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**6800**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-5 MS
Lab#: AD00074-008
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	9.7

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	1	ng/l		Attached

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	4900
Barium	1	ug/l	50	510
Calcium	1	ug/l	5000	59000
Chromium	1	ug/l	50	480
Copper	1	ug/l	50	480
Iron	1	ug/l	300	4800
Magnesium	1	ug/l	5000	45000
Manganese	1	ug/l	40	490
Nickel	1	ug/l	50	470
Potassium	1	ug/l	5000	46000
Silver	1	ug/l	20	93
Sodium	1	ug/l	5000	50000
Vanadium	1	ug/l	50	470
Zinc	1	ug/l	50	470

TAL Metals 6020

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	430
Arsenic	1	ug/l	2.0	450
Beryllium	1	ug/l	1.0	390
Cadmium	1	ug/l	2.0	440
Cobalt	1	ug/l	2.0	450
Lead	1	ug/l	3.0	420
Selenium	1	ug/l	10	420
Thallium	1	ug/l	2.0	420

Sample ID: LMW-5 MSD
Lab#: AD00074-009
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	9.9

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	1	ng/l		Attached

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	4900
Barium	1	ug/l	50	510
Calcium	1	ug/l	5000	58000
Chromium	1	ug/l	50	480
Copper	1	ug/l	50	480
Iron	1	ug/l	300	4800
Magnesium	1	ug/l	5000	44000
Manganese	1	ug/l	40	490
Nickel	1	ug/l	50	470
Potassium	1	ug/l	5000	45000
Silver	1	ug/l	20	94
Sodium	1	ug/l	5000	49000
Vanadium	1	ug/l	50	480
Zinc	1	ug/l	50	480

TAL Metals 6020

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	430
Arsenic	1	ug/l	2.0	460
Beryllium	1	ug/l	1.0	400
Cadmium	1	ug/l	2.0	440
Cobalt	1	ug/l	2.0	450
Lead	1	ug/l	3.0	420
Selenium	1	ug/l	10	420
Thallium	1	ug/l	2.0	430

Sample ID: LMW-5F
Lab#: AD00074-010
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**16000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**6900**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-5F MS
Lab#: AD00074-011
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	10

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	5000
Barium	1	ug/l	50	540
Calcium	1	ug/l	5000	66000
Chromium	1	ug/l	50	510
Copper	1	ug/l	50	500
Iron	1	ug/l	300	5000
Magnesium	1	ug/l	5000	53000
Manganese	1	ug/l	40	520
Nickel	1	ug/l	50	500
Potassium	1	ug/l	5000	51000
Silver	1	ug/l	20	98
Sodium	1	ug/l	5000	55000
Vanadium	1	ug/l	50	500
Zinc	1	ug/l	50	500

TAL Metals 6020

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	460
Arsenic	1	ug/l	2.0	490
Beryllium	1	ug/l	1.0	440
Cadmium	1	ug/l	2.0	470
Cobalt	1	ug/l	2.0	480
Lead	1	ug/l	3.0	460
Selenium	1	ug/l	10	450
Thallium	1	ug/l	2.0	460

Sample ID: LMW-5F MSD
Lab#: AD00074-012
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	10

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	5000
Barium	1	ug/l	50	540
Calcium	1	ug/l	5000	66000
Chromium	1	ug/l	50	510
Copper	1	ug/l	50	510
Iron	1	ug/l	300	5100
Magnesium	1	ug/l	5000	53000
Manganese	1	ug/l	40	520
Nickel	1	ug/l	50	500
Potassium	1	ug/l	5000	52000
Silver	1	ug/l	20	98
Sodium	1	ug/l	5000	56000
Vanadium	1	ug/l	50	510
Zinc	1	ug/l	50	510

TAL Metals 6020

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	450
Arsenic	1	ug/l	2.0	480
Beryllium	1	ug/l	1.0	420
Cadmium	1	ug/l	2.0	450
Cobalt	1	ug/l	2.0	470
Lead	1	ug/l	3.0	440
Selenium	1	ug/l	10	440
Thallium	1	ug/l	2.0	450

Sample ID: LMW-6 **Collection Date:** 9/13/2017
Lab#: AD00074-013 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**7800**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**9000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-6F
Lab#: AD00074-014
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**7600**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
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 6020

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: LMW-53
Lab#: AD00074-015
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**23000**
Chromium	**1**	**ug/l**	**50**	**66**
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**330**
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**32000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**9.5**
Cobalt	1	ug/l	2.0	ND
Lead	**1**	**ug/l**	**3.0**	**4.0**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-53 F
Lab#: AD00074-016
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**23000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**33000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**8.1**
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: LFB-20170913
Lab#: AD00074-017
Matrix: Aqueous

Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	1	ng/l		Attached

TAL Metals 6010

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

TAL Metals 6020

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: LMW-21 **Collection Date:** 9/13/2017
Lab#: AD00074-018 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**1500**
Barium	**1**	**ug/l**	**50**	**97**
Calcium	**1**	**ug/l**	**5000**	**15000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**2500**
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**140**
Nickel	1	ug/l	50	ND
Potassium	**1**	**ug/l**	**5000**	**7200**
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**32000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**3.5**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-21 F | **Collection Date: 9/13/2017**
Lab#: AD00074-019 | **Receipt Date: 9/15/2017**
Matrix: Aqueous

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	**1**	**ug/l**	**50**	**85**
Calcium	**1**	**ug/l**	**5000**	**15000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**340**
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**89**
Nickel	1	ug/l	50	ND
Potassium	**1**	**ug/l**	**5000**	**7100**
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**32000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-20 **Collection Date:** 9/13/2017
Lab#: AD00074-020 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**550**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**15000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**680**
Magnesium	**1**	**ug/l**	**5000**	**7000**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**20000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-20 F
Lab#: AD00074-021
Matrix: Aqueous
Collection Date: 9/13/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**15000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**7200**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**20000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-19
Lab#: AD00074-022
Matrix: Aqueous
Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**13000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**15000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-19 F
Lab#: AD00074-023
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**13000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**16000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-18
Lab#: AD00074-024
Matrix: Aqueous
Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	**1**	**ug/l**	**50**	**87**
Calcium	**1**	**ug/l**	**5000**	**20000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**5300**
Manganese	**1**	**ug/l**	**40**	**1300**
Nickel	1	ug/l	50	ND
Potassium	**1**	**ug/l**	**5000**	**5500**
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**24000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-18 F
Lab#: AD00074-025
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	**1**	**ug/l**	**50**	**89**
Calcium	**1**	**ug/l**	**5000**	**20000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**5600**
Manganese	**1**	**ug/l**	**40**	**890**
Nickel	1	ug/l	50	ND
Potassium	**1**	**ug/l**	**5000**	**5800**
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**25000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-16
Lab#: AD00074-026
Matrix: Aqueous
Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**1200**
Barium	**1**	**ug/l**	**50**	**140**
Calcium	**1**	**ug/l**	**5000**	**10000**
Chromium	1	ug/l	50	ND
Copper	**1**	**ug/l**	**50**	**58**
Iron	**1**	**ug/l**	**300**	**1800**
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**900**
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**11000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**5.2**
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: LMW-16 F
Lab#: AD00074-027
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**360**
Barium	**1**	**ug/l**	**50**	**140**
Calcium	**1**	**ug/l**	**5000**	**11000**
Chromium	1	ug/l	50	ND
Copper	**1**	**ug/l**	**50**	**50**
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**880**
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**11000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**5.1**
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: LMW-10 **Collection Date:** 9/14/2017
Lab#: AD00074-028 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**770**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**18000**
Chromium	**1**	**ug/l**	**50**	**82**
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**2200**
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**11000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**80**
Cobalt	1	ug/l	2.0	ND
Lead	**1**	**ug/l**	**3.0**	**11**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-10 F
Lab#: AD00074-029
Matrix: Aqueous
Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**18000**
Chromium	**1**	**ug/l**	**50**	**81**
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**11000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**72**
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: LMW-12
Lab#: AD00074-030
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	**1**	**ug/l**	**50**	**64**
Calcium	**1**	**ug/l**	**5000**	**41000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**8600**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**52000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-12F
Lab#: AD00074-031
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	**1**	**ug/l**	**50**	**66**
Calcium	**1**	**ug/l**	**5000**	**43000**
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	**1**	**ug/l**	**5000**	**9100**
Manganese	1	ug/l	40	ND
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**54000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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: LMW-14 **Collection Date:** 9/14/2017
Lab#: AD00074-032 **Receipt Date:** 9/15/2017
Matrix: Aqueous

Mercury (Water) 7470A

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

PFAs EPA537 Mod 20 compounds

Analyte	DF	Units	RL	Result
Perfluoro-n-undeconoic acid	**1**	**ng/l**		**Attached**

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	**1**	**ug/l**	**200**	**1700**
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**9500**
Chromium	**1**	**ug/l**	**50**	**110**
Copper	1	ug/l	50	ND
Iron	**1**	**ug/l**	**300**	**2600**
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**59**
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**21000**
Vanadium	1	ug/l	50	ND
Zinc	**1**	**ug/l**	**50**	**55**

TAL Metals 6020

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**	**5.1**
Cobalt	1	ug/l	2.0	ND
Lead	**1**	**ug/l**	**3.0**	**14**
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: LMW-14 F
Lab#: AD00074-033
Matrix: Aqueous

Collection Date: 9/14/2017
Receipt Date: 9/15/2017

Mercury (Water) 7470A

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

TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	200	ND
Barium	1	ug/l	50	ND
Calcium	**1**	**ug/l**	**5000**	**8800**
Chromium	**1**	**ug/l**	**50**	**58**
Copper	1	ug/l	50	ND
Iron	1	ug/l	300	ND
Magnesium	1	ug/l	5000	ND
Manganese	**1**	**ug/l**	**40**	**45**
Nickel	1	ug/l	50	ND
Potassium	1	ug/l	5000	ND
Silver	1	ug/l	20	ND
Sodium	**1**	**ug/l**	**5000**	**21000**
Vanadium	1	ug/l	50	ND
Zinc	1	ug/l	50	ND

TAL Metals 6020

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**	**4.0**
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

Form1
Inorganic Analysis Data Sheet

Sample ID: MB 61406 (1) % Solid: 0 Lab Name: Hampton-Clarke
Client Id: MB 61406 (1) Units: UG/L Lab Code:
Matrix: AQUEOUS
Level: LOW

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	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-70-2	Calcium	5000	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	11	CV	HGCV1A
7439-98-7	Molybdenum	20	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	SW21478A2	11	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-23-5	Sodium	5000	ND	1	50	50	09/20/17	61406	SW21478A2	11	P	PEICPRAD2A
7440-31-5	Tin	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-32-6	Titanium	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	SW21478B2	12	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 61406 % Solid: 0 Lab Name: Hampton-Clarke
Client Id: MB 61406 Units: UG/L Lab Code:
Matrix: AQUEOUS
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	3.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	61406	2017BNEW	17	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	61406	2017BNEW	17	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: MB 61407 (1) % Solid: 0 Lab Name: Hampton-Clarke
Client Id: MB 61407 (1) Units: UG/L Lab Code:
Matrix: AQUEOUS
Level: LOW

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	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-70-2	Calcium	5000	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	11	CV	HGCV2A
7439-98-7	Molybdenum	20	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	SW21479A4	14	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-23-5	Sodium	5000	ND	1	50	50	09/22/17	61407	SW21479A4	14	P	PEICPRAD4A
7440-31-5	Tin	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-32-6	Titanium	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	SW21479B2	15	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 61407 % Solid: 0 Lab Name: Hampton-Clarke
Client Id: MB 61407 Units: UG/L Lab Code:
Matrix: AQUEOUS
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	3.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	61407	2117ANEW	17	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	61407	2117ANEW	17	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:	AD00074-001	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-2	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-70-2	Calcium	5000	32000	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7439-95-4	Magnesium	5000	5500	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	18	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	33	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-23-5	Sodium	5000	25000	1	50	50	09/20/17	61406	W21478A2	33	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	35	P	PEICP2A

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:	AD00074-001	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-2	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	2.9	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		30	MS	MS3_7700SWA

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:	AD00074-002	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-2F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-70-2	Calcium	5000	34000	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7439-95-4	Magnesium	5000	5800	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	19	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	34	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-23-5	Sodium	5000	26000	1	50	50	09/20/17	61406	W21478A2	34	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	36	P	PEICP2A

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:	AD00074-002	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-2F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	3.2	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		31	MS	MS3_7700SWA

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:	AD00074-003	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-3	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	240	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-70-2	Calcium	5000	23000	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-47-3	Chromium	50	67	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7439-89-6	Iron	300	350	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	20	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	35	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-23-5	Sodium	5000	32000	1	50	50	09/20/17	61406	W21478A2	35	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	37	P	PEICP2A

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:	AD00074-003	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-3	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	9.6	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7439-92-1	Lead	3.0	3.9	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		32	MS	MS3_7700SWA

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:	AD00074-004	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-3F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-70-2	Calcium	5000	23000	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	23	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	36	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-23-5	Sodium	5000	33000	1	50	50	09/20/17	61406	W21478A2	36	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	38	P	PEICP2A

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:	AD00074-004	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-3F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	8.5	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		33	MS	MS3_7700SWA

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:	AD00074-005	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-4	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	360	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-70-2	Calcium	5000	24000	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-47-3	Chromium	50	110	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7439-89-6	Iron	300	430	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	24	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	37	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-23-5	Sodium	5000	8900	1	50	50	09/20/17	61406	W21478A2	37	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A
7440-66-6	Zinc	50	180	1	50	50	09/21/17	61406	W21478B2	39	P	PEICP2A

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:	AD00074-005	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-4	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	95	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7439-92-1	Lead	3.0	4.3	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		34	MS	MS3_7700SWA

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:	AD00074-006	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-4F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-70-2	Calcium	5000	23000	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-47-3	Chromium	50	90	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	25	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-09-7	Potassium	5000	5000	1	50	50	09/20/17	61406	W21478A2	38	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-23-5	Sodium	5000	12000	1	50	50	09/20/17	61406	W21478A2	38	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A
7440-66-6	Zinc	50	140	1	50	50	09/21/17	61406	W21478B2	40	P	PEICP2A

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:	AD00074-006	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-4F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	80	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		35	MS	MS3_7700SWA

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:	AD00074-007	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	220	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-39-3	Barium	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-70-2	Calcium	5000	17000	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-47-3	Chromium	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-50-8	Copper	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7439-89-6	Iron	300	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7439-96-5	Manganese	40	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	14	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	100	100	09/20/17	61406	W21478A2	14	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-23-5	Sodium	5000	6800	1	100	100	09/20/17	61406	W21478A2	14	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A
7440-66-6	Zinc	50	ND	1	100	100	09/21/17	61406	W21478B2	15	P	PEICP2A

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:	AD00074-007	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	100	200	09/20/17	614062017BNEW		20	MS	MS3_7700SWA

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:	AD00074-008	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5 MS	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	4900	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-39-3	Barium	50	510	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-70-2	Calcium	5000	59000	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-47-3	Chromium	50	480	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-50-8	Copper	50	480	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7439-89-6	Iron	300	4800	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7439-95-4	Magnesium	5000	45000	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7439-96-5	Manganese	40	490	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7439-97-6	Mercury	0.50	9.7	1	25	25	09/20/17	61406	H21478SW	16	CV	HGCV1A
7440-02-0	Nickel	50	470	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-09-7	Potassium	5000	46000	1	50	50	09/20/17	61406	W21478A2	16	P	PEICPRAD2A
7440-22-4	Silver	20	93	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-23-5	Sodium	5000	50000	1	50	50	09/20/17	61406	W21478A2	16	P	PEICPRAD2A
7440-62-2	Vanadium	50	470	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A
7440-66-6	Zinc	50	470	1	50	50	09/21/17	61406	W21478B2	17	P	PEICP2A

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:	AD00074-008	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5 MS	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	430	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	450	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	390	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	440	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	450	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7439-92-1	Lead	3.0	420	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7782-49-2	Selenium	10	420	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	420	1	50	100	09/20/17	614062017BNEW		23	MS	MS3_7700SWA

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:	AD00074-009	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5 MSD	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	4900	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-39-3	Barium	50	510	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-70-2	Calcium	5000	58000	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-47-3	Chromium	50	480	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-50-8	Copper	50	480	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7439-89-6	Iron	300	4800	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7439-95-4	Magnesium	5000	44000	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7439-96-5	Manganese	40	490	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7439-97-6	Mercury	0.50	9.9	1	25	25	09/20/17	61406	H21478SW	17	CV	HGCV1A
7440-02-0	Nickel	50	470	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-09-7	Potassium	5000	45000	1	50	50	09/20/17	61406	W21478A2	17	P	PEICPRAD2A
7440-22-4	Silver	20	94	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-23-5	Sodium	5000	49000	1	50	50	09/20/17	61406	W21478A2	17	P	PEICPRAD2A
7440-62-2	Vanadium	50	480	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A
7440-66-6	Zinc	50	480	1	50	50	09/21/17	61406	W21478B2	18	P	PEICP2A

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:	AD00074-009	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5 MSD	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	430	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	460	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	400	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	440	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	450	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7439-92-1	Lead	3.0	420	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7782-49-2	Selenium	10	420	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	430	1	50	100	09/20/17	614062017BNEW		24	MS	MS3_7700SWA

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:	AD00074-010	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-39-3	Barium	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-70-2	Calcium	5000	16000	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-47-3	Chromium	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-50-8	Copper	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7439-89-6	Iron	300	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7439-96-5	Manganese	40	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	14	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	100	100	09/22/17	61407	W21479A4	17	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-23-5	Sodium	5000	6900	1	100	100	09/22/17	61407	W21479A4	17	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A
7440-66-6	Zinc	50	ND	1	100	100	09/22/17	61407	W21479B2	18	P	PEICP2A

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:	AD00074-010	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	20	MS	MS3_7700SWA

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:	AD00074-011	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F MS	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	5000	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-39-3	Barium	50	540	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-70-2	Calcium	5000	66000	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-47-3	Chromium	50	510	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-50-8	Copper	50	500	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7439-89-6	Iron	300	5000	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7439-95-4	Magnesium	5000	53000	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7439-96-5	Manganese	40	520	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7439-97-6	Mercury	0.50	10	1	25	25	09/25/17	61407	H21479SW	16	CV	HGCV2A
7440-02-0	Nickel	50	500	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-09-7	Potassium	5000	51000	1	50	50	09/22/17	61407	W21479A4	19	P	PEICPRAD4A
7440-22-4	Silver	20	98	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-23-5	Sodium	5000	55000	1	50	50	09/22/17	61407	W21479A4	19	P	PEICPRAD4A
7440-62-2	Vanadium	50	500	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A
7440-66-6	Zinc	50	500	1	50	50	09/22/17	61407	W21479B2	20	P	PEICP2A

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:	AD00074-011	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F MS	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	460	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	490	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	440	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	470	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	480	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7439-92-1	Lead	3.0	460	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7782-49-2	Selenium	10	450	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	460	1	50	100	09/21/17	614072	117ANEW	23	MS	MS3_7700SWA

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:	AD00074-012	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F MSD	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	5000	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-39-3	Barium	50	540	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-70-2	Calcium	5000	66000	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-47-3	Chromium	50	510	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-50-8	Copper	50	510	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7439-89-6	Iron	300	5100	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7439-95-4	Magnesium	5000	53000	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7439-96-5	Manganese	40	520	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7439-97-6	Mercury	0.50	10	1	25	25	09/25/17	61407	H21479SW	17	CV	HGCV2A
7440-02-0	Nickel	50	500	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-09-7	Potassium	5000	52000	1	50	50	09/22/17	61407	W21479A4	20	P	PEICPRAD4A
7440-22-4	Silver	20	98	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-23-5	Sodium	5000	56000	1	50	50	09/22/17	61407	W21479A4	20	P	PEICPRAD4A
7440-62-2	Vanadium	50	510	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A
7440-66-6	Zinc	50	510	1	50	50	09/22/17	61407	W21479B2	21	P	PEICP2A

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:	AD00074-012	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-5F MSD	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	450	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	480	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	420	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	450	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	470	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7439-92-1	Lead	3.0	440	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7782-49-2	Selenium	10	440	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	450	1	50	100	09/21/17	614072117ANEW		24	MS	MS3_7700SWA

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:	AD00074-013	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-6	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-70-2	Calcium	5000	7800	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	26	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	42	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-23-5	Sodium	5000	9000	1	50	50	09/20/17	61406	W21478A2	42	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	44	P	PEICP2A

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:	AD00074-013	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-6	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		36	MS	MS3_7700SWA

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:	AD00074-014	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-6F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-70-2	Calcium	5000	7600	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	27	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	43	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-23-5	Sodium	5000	9300	1	50	50	09/20/17	61406	W21478A2	43	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	45	P	PEICP2A

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:	AD00074-014	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-6F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		37	MS	MS3_7700SWA

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:	AD00074-015	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-53	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-70-2	Calcium	5000	23000	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-47-3	Chromium	50	66	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7439-89-6	Iron	300	330	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	28	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	44	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-23-5	Sodium	5000	32000	1	50	50	09/20/17	61406	W21478A2	44	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	46	P	PEICP2A

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:	AD00074-015	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-53	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	9.5	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7439-92-1	Lead	3.0	4.0	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		38	MS	MS3_7700SWA

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:	AD00074-016	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-53 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-70-2	Calcium	5000	23000	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	29	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	45	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-23-5	Sodium	5000	33000	1	50	50	09/20/17	61406	W21478A2	45	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	47	P	PEICP2A

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:	AD00074-016	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-53 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	8.1	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		43	MS	MS3_7700SWA

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:	AD00074-017	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LFB-20170913	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-70-2	Calcium	5000	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	30	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	46	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-23-5	Sodium	5000	ND	1	50	50	09/20/17	61406	W21478A2	46	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	48	P	PEICP2A

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:	AD00074-017	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LFB-20170913	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		44	MS	MS3_7700SWA

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:	AD00074-018	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-21	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	1500	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-39-3	Barium	50	97	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-70-2	Calcium	5000	15000	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7439-89-6	Iron	300	2500	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7439-96-5	Manganese	40	140	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	31	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-09-7	Potassium	5000	7200	1	50	50	09/20/17	61406	W21478A2	23	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-23-5	Sodium	5000	32000	1	50	50	09/20/17	61406	W21478A2	23	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	24	P	PEICP2A

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:	AD00074-018	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-21	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7439-92-1	Lead	3.0	3.5	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		45	MS	MS3_7700SWA

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:	AD00074-019	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-21 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-39-3	Barium	50	85	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-70-2	Calcium	5000	15000	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7439-89-6	Iron	300	340	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7439-96-5	Manganese	40	89	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	32	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-09-7	Potassium	5000	7100	1	50	50	09/20/17	61406	W21478A2	24	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-23-5	Sodium	5000	32000	1	50	50	09/20/17	61406	W21478A2	24	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	25	P	PEICP2A

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:	AD00074-019	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-21 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		46	MS	MS3_7700SWA

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:	AD00074-020	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-20	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	550	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-70-2	Calcium	5000	15000	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7439-89-6	Iron	300	680	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7439-95-4	Magnesium	5000	7000	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	35	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	25	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-23-5	Sodium	5000	20000	1	50	50	09/20/17	61406	W21478A2	25	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	26	P	PEICP2A

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:	AD00074-020	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-20	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		47	MS	MS3_7700SWA

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:	AD00074-021	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-20 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-70-2	Calcium	5000	15000	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7439-95-4	Magnesium	5000	7200	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/20/17	61406	H21478SW	36	CV	HGCV1A
7440-02-0	Nickel	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/20/17	61406	W21478A2	26	P	PEICPRAD2A
7440-22-4	Silver	20	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-23-5	Sodium	5000	20000	1	50	50	09/20/17	61406	W21478A2	26	P	PEICPRAD2A
7440-62-2	Vanadium	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/21/17	61406	W21478B2	27	P	PEICP2A

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:	AD00074-021	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-20 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/20/17	614062017BNEW		48	MS	MS3_7700SWA

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:	AD00074-022	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-19	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-70-2	Calcium	5000	13000	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	18	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	26	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-23-5	Sodium	5000	15000	1	50	50	09/22/17	61407	W21479A4	26	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	27	P	PEICP2A

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:	AD00074-022	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-19	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		30	MS	MS3_7700SWA

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:	AD00074-023	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-19 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-70-2	Calcium	5000	13000	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	19	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	27	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-23-5	Sodium	5000	16000	1	50	50	09/22/17	61407	W21479A4	27	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	28	P	PEICP2A

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:	AD00074-023	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-19 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		31	MS	MS3_7700SWA

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:	AD00074-024	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-18	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-39-3	Barium	50	87	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-70-2	Calcium	5000	20000	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7439-95-4	Magnesium	5000	5300	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7439-96-5	Manganese	40	1300	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	22	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-09-7	Potassium	5000	5500	1	50	50	09/22/17	61407	W21479A4	28	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-23-5	Sodium	5000	24000	1	50	50	09/22/17	61407	W21479A4	28	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	29	P	PEICP2A

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:	AD00074-024	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-18	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	32	MS	MS3_7700SWA

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:	AD00074-025	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-18 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-39-3	Barium	50	89	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-70-2	Calcium	5000	20000	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7439-95-4	Magnesium	5000	5600	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7439-96-5	Manganese	40	890	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	23	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-09-7	Potassium	5000	5800	1	50	50	09/22/17	61407	W21479A4	29	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-23-5	Sodium	5000	25000	1	50	50	09/22/17	61407	W21479A4	29	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	30	P	PEICP2A

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:	AD00074-025	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-18 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		33	MS	MS3_7700SWA

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:	AD00074-026	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-16	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	1200	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-39-3	Barium	50	140	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-70-2	Calcium	5000	10000	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-50-8	Copper	50	58	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7439-89-6	Iron	300	1800	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7439-96-5	Manganese	40	900	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	24	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	30	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-23-5	Sodium	5000	11000	1	50	50	09/22/17	61407	W21479A4	30	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	31	P	PEICP2A

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:	AD00074-026	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-16	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	5.2	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	34	MS	MS3_7700SWA

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:	AD00074-027	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-16 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	360	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-39-3	Barium	50	140	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-70-2	Calcium	5000	11000	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-50-8	Copper	50	50	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7439-96-5	Manganese	40	880	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	25	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	31	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-23-5	Sodium	5000	11000	1	50	50	09/22/17	61407	W21479A4	31	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	32	P	PEICP2A

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:	AD00074-027	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-16 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	5.1	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	35	MS	MS3_7700SWA

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:	AD00074-028	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-10	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	770	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-70-2	Calcium	5000	18000	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-47-3	Chromium	50	82	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7439-89-6	Iron	300	2200	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	26	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	37	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-23-5	Sodium	5000	11000	1	50	50	09/22/17	61407	W21479A4	37	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	38	P	PEICP2A

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:	AD00074-028	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-10	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	80	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7439-92-1	Lead	3.0	11	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		36	MS	MS3_7700SWA

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:	AD00074-029	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-10 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-70-2	Calcium	5000	18000	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-47-3	Chromium	50	81	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	27	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	38	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-23-5	Sodium	5000	11000	1	50	50	09/22/17	61407	W21479A4	38	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	39	P	PEICP2A

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:	AD00074-029	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-10 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	72	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		37	MS	MS3_7700SWA

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:	AD00074-030	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-12	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-39-3	Barium	50	64	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-70-2	Calcium	5000	41000	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7439-95-4	Magnesium	5000	8600	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	28	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	39	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-23-5	Sodium	5000	52000	1	50	50	09/22/17	61407	W21479A4	39	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	40	P	PEICP2A

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:	AD00074-030	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-12	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		38	MS	MS3_7700SWA

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:	AD00074-031	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-12F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-39-3	Barium	50	66	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-70-2	Calcium	5000	43000	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7439-95-4	Magnesium	5000	9100	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	29	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	40	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-23-5	Sodium	5000	54000	1	50	50	09/22/17	61407	W21479A4	40	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	41	P	PEICP2A

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:	AD00074-031	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-12F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		43	MS	MS3_7700SWA

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:	AD00074-032	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-14	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	1700	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-70-2	Calcium	5000	9500	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-47-3	Chromium	50	110	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7439-89-6	Iron	300	2600	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7439-96-5	Manganese	40	59	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	30	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	41	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-23-5	Sodium	5000	21000	1	50	50	09/22/17	61407	W21479A4	41	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A
7440-66-6	Zinc	50	55	1	50	50	09/22/17	61407	W21479B2	42	P	PEICP2A

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:	AD00074-032	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-14	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	5.1	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7439-92-1	Lead	3.0	14	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072117ANEW		44	MS	MS3_7700SWA

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:	AD00074-033	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-14 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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
7429-90-5	Aluminum	200	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-70-2	Calcium	5000	8800	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-47-3	Chromium	50	58	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7439-89-6	Iron	300	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7439-95-4	Magnesium	5000	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7439-96-5	Manganese	40	45	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7439-97-6	Mercury	0.50	ND	1	25	25	09/25/17	61407	H21479SW	33	CV	HGCV2A
7440-02-0	Nickel	50	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	09/22/17	61407	W21479A4	42	P	PEICPRAD4A
7440-22-4	Silver	20	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-23-5	Sodium	5000	21000	1	50	50	09/22/17	61407	W21479A4	42	P	PEICPRAD4A
7440-62-2	Vanadium	50	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	09/22/17	61407	W21479B2	43	P	PEICP2A

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:	AD00074-033	% Solid:	0	Lab Name:	Hampton-Clarke	Nras No:	
Client Id:	LMW-14 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	9/15/2017	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	3.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7440-38-2	Arsenic	2.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7440-41-7	Beryllium	1.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7440-43-9	Cadmium	2.0	4.0	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7440-48-4	Cobalt	2.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7439-92-1	Lead	3.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7782-49-2	Selenium	10	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA
7440-28-0	Thallium	2.0	ND	1	50	100	09/21/17	614072	117ANEW	45	MS	MS3_7700SWA

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

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/20/17
Data File: A092017BNEW
Prep Batch: 61406
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: MS3_7700SWA
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-263353-10	CCB V-263353-16	CCB V-263353-29	CCB V-263353-42	CCB V-263353-54	MB 61406-17		
Antimony	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U		
Arsenic	1 U	1 U	1 U	1 U	1 U	2 U		
Beryllium	.5 U	.5 U	.5 U	.5 U	.5 U	1 U		
Cadmium	1 U	1 U	1 U	1 U	1 U	2 U		
Cobalt	1 U	1 U	1 U	1 U	1 U	2 U		
Lead	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U		
Selenium	5 U	5 U	5 U	5 U	5 U	10 U		
Thallium	1 U	1 U	1 U	1 U	1 U	2 U		

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/20/17
Data File: SW21478A2
Prep Batch: 61406
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: PEICPRAD2A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-261851-8	CCB-21	CCB-32	CCB-41	CCB-51	MB 61406 (1)-11		
Potassium	5 U	5 U	5 U	5 U	5 U	5 U		
Sodium	5 U	5 U	5 U	5 U	5 U	5 U		

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/21/17
Data File: SW21478B2
Prep Batch: 61406
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: PEICP2A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-261851-9	CCB-22	CCB-34	CCB-43	CCB-53	MB 61406 (1)-12		
Aluminum	.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		
Calcium	5 U	5 U	5 U	5 U	5 U	5 U		
Chromium	.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		
Iron	.3 U	.3 U	.3 U	.3 U	.3 U	.3 U		
Magnesium	5 U	5 U	5 U	5 U	5 U	5 U		
Manganese	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U		
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U		
Silver	.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		
Zinc	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U		

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/21/17
Data File: A092117ANEW
Prep Batch: 61407
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: MS3_7700SWA
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-263353-10	CCB V-263353-16	CCB V-263353-29	CCB V-263353-42	CCB V-263353-50	MB 61407-17		
Antimony	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U		
Arsenic	1 U	1 U	1 U	1 U	1 U	2 U		
Beryllium	.5 U	.5 U	.5 U	.5 U	.5 U	1 U		
Cadmium	1 U	1 U	1 U	1 U	1 U	2 U		
Cobalt	1 U	1 U	1 U	1 U	1 U	2 U		
Lead	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U		
Selenium	5 U	5 U	5 U	5 U	5 U	10 U		
Thallium	1 U	1 U	1 U	1 U	1 U	2 U		

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/22/17
Data File: SW21479A4
Prep Batch: 61407
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: PEICPRAD4A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-261851-8	CCB-13	CCB-24	CCB-36	CCB-48	MB 61407 (1)-14		
Potassium	5 U	5 U	5 U	5 U	5 U	5 U		
Sodium	5 U	5 U	5 U	5 U	5 U	5 U		

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/22/17
Data File: SW21479B2
Prep Batch: 61407
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: PEICP2A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-261851-9	CCB-14	CCB-26	CCB-37	CCB-49	MB 61407 (1)-15	
Aluminum	.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	
Calcium	5 U	5 U	5 U	5 U	5 U	5 U	
Chromium	.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	
Iron	.3 U	.3 U	.3 U	.3 U	.3 U	.3 U	
Magnesium	5 U	5 U	5 U	5 U	5 U	5 U	
Manganese	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U	
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	
Silver	.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	
Zinc	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/20/17
Data File: H21478SW
Prep Batch: 61406
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: HGCV1A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB-10	CCB-22	CCB-34	CCB-40	MB 61406 (1)-11			
Mercury	.5 U	.5 U	.5 U	.5 U	.5 U			

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/25/17
Data File: H21479SW
Prep Batch: 61407
Reporting Limits Used: 6010B/6010C/7470A,7471A/7471B(Hg),6020/6020A
Instrument: HGCV2A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 7091521

Lab Name: Hampton-Clarke
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB-10	CCB-21	CCB-32	CCB-36	MB 61407 (1)-11
Mercury	.5 U	.5 U	.5 U	.5 U	.5 U

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM5/FORM7
SPIKE RECOVERY DATA
PREP BATCH: 61406

Instrument Type: ICP/HG
Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCS Matrix: AQUEOUS SampleID: LCSW 61406

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	61406	1	SW21478	13	4.8427	5.000	97		80	120
Barium	61406	1	SW21478	13	0.4943	0.500	99		80	120
Calcium	61406	1	SW21478	13	44.5032	50.00	89		80	120
Chromium	61406	1	SW21478	13	0.4899	0.500	98		80	120
Copper	61406	1	SW21478	13	0.4946	0.500	99		80	120
Iron	61406	1	SW21478	13	4.9368	5.000	99		80	120
Magnesium	61406	1	SW21478	13	44.1273	50.00	88		80	120
Manganese	61406	1	SW21478	13	0.4914	0.500	98		80	120
Mercury	61406	1	H21478S	12	9.9442	10	99		80	120
Nickel	61406	1	SW21478	13	0.4925	0.500	99		80	120
Potassium	61406	1	SW21478	12	43.7827	50	88		80	120
Silver	61406	1	SW21478	13	0.0967	0.100	97		80	120
Sodium	61406	1	SW21478	12	44.4376	50	89		80	120
Vanadium	61406	1	SW21478	13	0.4898	0.500	98		80	120
Zinc	61406	1	SW21478	13	0.4923	0.500	98		80	120

TxtQcType: LCSMR Matrix: AQUEOUS SampleID: LCSW MR 61406

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	61406	1	SW21478	14	4.8463	5.000	97		80	120
Barium	61406	1	SW21478	14	0.4933	0.500	99		80	120
Calcium	61406	1	SW21478	14	44.7337	50.00	89		80	120
Chromium	61406	1	SW21478	14	0.4922	0.500	98		80	120
Copper	61406	1	SW21478	14	0.4933	0.500	99		80	120
Iron	61406	1	SW21478	14	4.9348	5.000	99		80	120
Magnesium	61406	1	SW21478	14	44.3944	50.00	89		80	120
Manganese	61406	1	SW21478	14	0.4910	0.500	98		80	120
Mercury	61406	1	H21478S	13	9.8884	10	99		80	120
Nickel	61406	1	SW21478	14	0.4956	0.500	99		80	120
Potassium	61406	1	SW21478	13	43.9664	50	88		80	120
Silver	61406	1	SW21478	14	0.0970	0.100	97		80	120
Sodium	61406	1	SW21478	13	44.6044	50	89		80	120
Vanadium	61406	1	SW21478	14	0.4900	0.500	98		80	120
Zinc	61406	1	SW21478	14	0.4930	0.500	99		80	120

TxtQcType: MS Matrix: AQUEOUS SampleID: AD00074-008

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	61406	1	SW21478	17	SW21478	15	4.8767	0.2239	5.00	93		75	125
Barium	61406	1	SW21478	17	SW21478	15	0.5072	0.05U	0.50	101		75	125
Calcium	61406	1	SW21478	17	SW21478	15	59.0689	16.9572	50.0	84		75	125
Chromium	61406	1	SW21478	17	SW21478	15	0.4792	0.05U	0.50	96		75	125
Copper	61406	1	SW21478	17	SW21478	15	0.4771	0.05U	0.50	95		75	125
Iron	61406	1	SW21478	17	SW21478	15	4.7926	0.3U	5.00	96		75	125
Magnesium	61406	1	SW21478	17	SW21478	15	44.7997	5U	50.0	90		75	125
Manganese	61406	1	SW21478	17	SW21478	15	0.4855	0.04U	0.50	97		75	125
Mercury	61406	1	H21478S	16	H21478S	14	9.6775	0.50U	10	97		75	125
Nickel	61406	1	SW21478	17	SW21478	15	0.4713	0.05U	0.50	94		75	125
Potassium	61406	1	SW21478	16	SW21478	14	46.1018	5U	50.00	92		75	125
Silver	61406	1	SW21478	17	SW21478	15	0.0927	0.02U	.100	93		75	125
Sodium	61406	1	SW21478	16	SW21478	14	49.7960	6.8352	50.00	86		75	125
Vanadium	61406	1	SW21478	17	SW21478	15	0.4703	0.05U	0.50	94		75	125
Zinc	61406	1	SW21478	17	SW21478	15	0.4743	0.05U	0.50	95		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: 61406

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: MSD Matrix: AQUEOUS SampleID: AD00074-009

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	61406	1	SW21478	18	SW21478	15	4.9020	0.2239	5.00	94		75	125
Barium	61406	1	SW21478	18	SW21478	15	0.5120	0.05U	0.50	102		75	125
Calcium	61406	1	SW21478	18	SW21478	15	58.2185	16.9572	50.0	83		75	125
Chromium	61406	1	SW21478	18	SW21478	15	0.4842	0.05U	0.50	97		75	125
Copper	61406	1	SW21478	18	SW21478	15	0.4776	0.05U	0.50	96		75	125
Iron	61406	1	SW21478	18	SW21478	15	4.8241	0.3U	5.00	96		75	125
Magnesium	61406	1	SW21478	18	SW21478	15	44.3667	5U	50.0	89		75	125
Manganese	61406	1	SW21478	18	SW21478	15	0.4946	0.04U	0.50	99		75	125
Mercury	61406	1	H21478S	17	H21478S	14	9.8579	0.50U	10	99		75	125
Nickel	61406	1	SW21478	18	SW21478	15	0.4701	0.05U	0.50	94		75	125
Potassium	61406	1	SW21478	17	SW21478	14	45.3081	5U	50.0	91		75	125
Silver	61406	1	SW21478	18	SW21478	15	0.0938	0.02U	0.100	94		75	125
Sodium	61406	1	SW21478	17	SW21478	14	49.3863	6.8352	50	85		75	125
Vanadium	61406	1	SW21478	18	SW21478	15	0.4757	0.05U	0.50	95		75	125
Zinc	61406	1	SW21478	18	SW21478	15	0.4775	0.05U	0.50	95		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: 61406

Instrument Type: ICPMS

Analytical Method(s):6020/200.8

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCS Matrix: AQUEOUS SampleID: LCS 61406

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Antimony	61406	1	A092017B	18	213.3710	250	85		80	120
Arsenic	61406	1	A092017B	18	253.9450	250	102		80	120
Beryllium	61406	1	A092017B	18	204.4780	250	82		80	120
Cadmium	61406	1	A092017B	18	220.7180	250	88		80	120
Cobalt	61406	1	A092017B	18	262.2430	250	105		80	120
Lead	61406	1	A092017B	18	215.2990	250	86		80	120
Selenium	61406	1	A092017B	18	240.0570	250	96		80	120
Thallium	61406	1	A092017B	18	217.1350	250	87		80	120

TxtQcType: LCSMR Matrix: AQUEOUS SampleID: LCS MR 61406

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Antimony	61406	1	A092017B	19	217.7300	250	87		80	120
Arsenic	61406	1	A092017B	19	227.4530	250	91		80	120
Beryllium	61406	1	A092017B	19	205.2980	250	82		80	120
Cadmium	61406	1	A092017B	19	224.4490	250	90		80	120
Cobalt	61406	1	A092017B	19	233.0140	250	93		80	120
Lead	61406	1	A092017B	19	213.7060	250	85		80	120
Selenium	61406	1	A092017B	19	211.8480	250	85		80	120
Thallium	61406	1	A092017B	19	216.2420	250	86		80	120

TxtQcType: MS Matrix: AQUEOUS SampleID: AD00074-008

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Antimony	61406	1	A092017B	23	A092017B	20	213.7750	1.5U	250	86		75	125
Arsenic	61406	1	A092017B	23	A092017B	20	224.9760	1U	250	90		75	125
Beryllium	61406	1	A092017B	23	A092017B	20	197.1650	0.5U	250	79		75	125
Cadmium	61406	1	A092017B	23	A092017B	20	218.1400	1U	250	87		75	125
Cobalt	61406	1	A092017B	23	A092017B	20	225.6110	1U	250	90		75	125
Lead	61406	1	A092017B	23	A092017B	20	209.1220	1.5U	250	84		75	125
Selenium	61406	1	A092017B	23	A092017B	20	211.6450	5U	250	85		75	125
Thallium	61406	1	A092017B	23	A092017B	20	210.0130	1U	250	84		75	125

TxtQcType: MSD Matrix: AQUEOUS SampleID: AD00074-009

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Antimony	61406	1	A092017B	24	A092017B	20	217.1850	1.5U	250	87		75	125
Arsenic	61406	1	A092017B	24	A092017B	20	229.0700	1U	250	92		75	125
Beryllium	61406	1	A092017B	24	A092017B	20	199.2430	0.5U	250	80		75	125
Cadmium	61406	1	A092017B	24	A092017B	20	222.4240	1U	250	89		75	125
Cobalt	61406	1	A092017B	24	A092017B	20	226.1810	1U	250	90		75	125
Lead	61406	1	A092017B	24	A092017B	20	211.3810	1.5U	250	85		75	125
Selenium	61406	1	A092017B	24	A092017B	20	211.5730	5U	250	85		75	125
Thallium	61406	1	A092017B	24	A092017B	20	213.2450	1U	250	85		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: 61406

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS Matrix: AQUEOUS SampleID: AD00074-007

Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	1	SW21478	19	SW21478	15	5.1873	0.2239	5.000	99		80	120
Barium	1	SW21478	19	SW21478	15	0.5384	0.05U	.5	108		80	120
Calcium	1	SW21478	19	SW21478	15	66.9875	16.9572	50.0	100		80	120
Chromium	1	SW21478	19	SW21478	15	0.5099	0.05U	.5000	102		80	120
Copper	1	SW21478	19	SW21478	15	0.5035	0.05U	0.5	101		80	120
Iron	1	SW21478	19	SW21478	15	5.1053	0.3U	5.000	102		80	120
Magnesium	1	SW21478	19	SW21478	15	52.4213	5U	50.0	105		80	120
Manganese	1	SW21478	19	SW21478	15	0.5197	0.04U	.5000	104		80	120
Nickel	1	SW21478	19	SW21478	15	0.4993	0.05U	.5000	100		80	120
Potassium	1	SW21478	18	SW21478	14	52.9385	5U	50.00	106		80	120
Silver	1	SW21478	19	SW21478	15	0.0677	0.02U	0.100	68	a	80	120
Sodium	1	SW21478	18	SW21478	14	57.0019	6.8352	50.00	100		80	120
Vanadium	1	SW21478	19	SW21478	15	0.5030	0.05U	.5000	101		80	120
Zinc	1	SW21478	19	SW21478	15	0.5120	0.05U	0.500	102		80	120

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: 61406

Instrument Type: ICPMS
Analytical Method(s):6020/200.8

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS Matrix: AQUEOUS SampleID: AD00074-007

Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Antimony	1	A092017B	25	A092017B	20	48.3470	1.5U	50	97		80	120
Arsenic	1	A092017B	25	A092017B	20	49.2370	1U	50	98		80	120
Beryllium	1	A092017B	25	A092017B	20	41.4290	0.5U	50	83		80	120
Cadmium	1	A092017B	25	A092017B	20	47.3880	1U	50	95		80	120
Cobalt	1	A092017B	25	A092017B	20	51.1290	1U	50	102		80	120
Lead	1	A092017B	25	A092017B	20	47.1200	1.5U	50	94		80	120
Selenium	1	A092017B	25	A092017B	20	225.8190	5U	250	90		80	120
Thallium	1	A092017B	25	A092017B	20	46.6560	1U	50	93		80	120

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: 61406

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR Matrix: AQUEOUS SampleID: LCSW MR 61406

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD		Limit
Aluminum	61406	SW21478	14	SW21478	13	4.8463	4.8427	.075		20
Barium	61406	SW21478	14	SW21478	13	0.4933	0.4943	.21		20
Calcium	61406	SW21478	14	SW21478	13	44.7337	44.5032	.52		20
Chromium	61406	SW21478	14	SW21478	13	0.4922	0.4899	.48		20
Copper	61406	SW21478	14	SW21478	13	0.4933	0.4946	.25		20
Iron	61406	SW21478	14	SW21478	13	4.9348	4.9368	.041		20
Magnesium	61406	SW21478	14	SW21478	13	44.3944	44.1273	.6		20
Manganese	61406	SW21478	14	SW21478	13	0.4910	0.4914	.096		20
Mercury	61406	H21478S	13	H21478S	12	9.8884	9.9442	.56		20
Nickel	61406	SW21478	14	SW21478	13	0.4956	0.4925	.62		20
Potassium	61406	SW21478	13	SW21478	12	43.9664	43.7827	.42		20
Silver	61406	SW21478	14	SW21478	13	0.0970	0.0967	.32		20
Sodium	61406	SW21478	13	SW21478	12	44.6044	44.4376	.37		20
Vanadium	61406	SW21478	14	SW21478	13	0.4900	0.4898	.061		20
Zinc	61406	SW21478	14	SW21478	13	0.4930	0.4923	.14		20

TxtQcType: MR Matrix: AQUEOUS SampleID: AD00074-007

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD		Limit
Aluminum	61406	SW21478	16	SW21478	15	0.7851	0.2239	111	b	20
Barium	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20
Calcium	61406	SW21478	16	SW21478	15	15.7954	16.9572	7.1		20
Chromium	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20
Copper	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20
Iron	61406	SW21478	16	SW21478	15	0.3U	0.3U	---		20
Magnesium	61406	SW21478	16	SW21478	15	5U	5U	---		20
Manganese	61406	SW21478	16	SW21478	15	0.04U	0.04U	---		20
Mercury	61406	H21478S	15	H21478S	14	0.50U	0.50U	---		20
Nickel	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20
Potassium	61406	SW21478	15	SW21478	14	5U	5U	---		20
Silver	61406	SW21478	16	SW21478	15	0.02U	0.02U	---		20
Sodium	61406	SW21478	15	SW21478	14	6.4674	6.8352	5.5		20
Vanadium	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20
Zinc	61406	SW21478	16	SW21478	15	0.05U	0.05U	---		20

TxtQcType: MSD Matrix: AQUEOUS SampleID: AD00074-009

Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD		Limit
Aluminum	61406	SW21478	18	SW21478	17	4.9020	4.8767	.52		20
Barium	61406	SW21478	18	SW21478	17	0.5120	0.5072	.95		20
Calcium	61406	SW21478	18	SW21478	17	58.2185	59.0689	1.5		20
Chromium	61406	SW21478	18	SW21478	17	0.4842	0.4792	1		20
Copper	61406	SW21478	18	SW21478	17	0.4776	0.4771	.12		20
Iron	61406	SW21478	18	SW21478	17	4.8241	4.7926	.66		20
Magnesium	61406	SW21478	18	SW21478	17	44.3667	44.7997	.97		20
Manganese	61406	SW21478	18	SW21478	17	0.4946	0.4855	1.9		20
Mercury	61406	H21478S	17	H21478S	16	9.8579	9.6775	1.8		20
Nickel	61406	SW21478	18	SW21478	17	0.4701	0.4713	.26		20
Potassium	61406	SW21478	17	SW21478	16	45.3081	46.1018	1.7		20
Silver	61406	SW21478	18	SW21478	17	0.0938	0.0927	1.1		20
Sodium	61406	SW21478	17	SW21478	16	49.3863	49.7960	.83		20
Vanadium	61406	SW21478	18	SW21478	17	0.4757	0.4703	1.1		20
Zinc	61406	SW21478	18	SW21478	17	0.4775	0.4743	.67		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: 61406

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: SD Matrix: AQUEOUS SampleID: AD00074-007

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff		Limit
Aluminum	61406	SW21478	23	SW21478	15	5	0.0236	0.2239	47	c	10
Barium	61406	SW21478	23	SW21478	15	5	0.0068	0.0363	5.9		10
Calcium	61406	SW21478	23	SW21478	15	5	3.1603	16.9572	6.8		10
Chromium	61406	SW21478	23	SW21478	15	5	0.0009	0.0087	47	c	10
Copper	61406	SW21478	23	SW21478	15	5	0.0007	0.0013	---		10
Iron	61406	SW21478	23	SW21478	15	5	-0.0010	0.0512	---		10
Magnesium	61406	SW21478	23	SW21478	15	5	0.2638	2.1319	38	a	10
Manganese	61406	SW21478	23	SW21478	15	5	0.0025	0.0170	25	a	10
Nickel	61406	SW21478	23	SW21478	15	5	-0.0013	-0.0006	---		10
Potassium	61406	SW21478	22	SW21478	14	5	0.9523	3.4491	38	a	10
Silver	61406	SW21478	23	SW21478	15	5	-0.0008	-0.0005	---		10
Sodium	61406	SW21478	22	SW21478	14	5	1.4742	6.8352	7.8		10
Vanadium	61406	SW21478	23	SW21478	15	5	-0.0021	-0.0006	---		10
Zinc	61406	SW21478	23	SW21478	15	5	0.0011	0.0086	---		10

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: 61407

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR Matrix: AQUEOUS SampleID: LCSW MR 61407

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	61407	SW21479	17	SW21479	16	4.8548	4.8445	.21	20
Barium	61407	SW21479	17	SW21479	16	0.4909	0.4888	.44	20
Calcium	61407	SW21479	17	SW21479	16	48.9603	49.1672	.42	20
Chromium	61407	SW21479	17	SW21479	16	0.4927	0.4892	.72	20
Copper	61407	SW21479	17	SW21479	16	0.4931	0.4932	.023	20
Iron	61407	SW21479	17	SW21479	16	4.9723	4.9526	.4	20
Magnesium	61407	SW21479	17	SW21479	16	49.1679	49.1827	.03	20
Manganese	61407	SW21479	17	SW21479	16	0.4911	0.4890	.44	20
Mercury	61407	H21479S	13	H21479S	12	10.4600	10.5200	.57	20
Nickel	61407	SW21479	17	SW21479	16	0.4952	0.4907	.9	20
Potassium	61407	SW21479	16	SW21479	15	47.2887	46.5211	1.6	20
Silver	61407	SW21479	17	SW21479	16	0.0956	0.0954	.22	20
Sodium	61407	SW21479	16	SW21479	15	47.8418	47.1599	1.4	20
Vanadium	61407	SW21479	17	SW21479	16	0.4918	0.4894	.49	20
Zinc	61407	SW21479	17	SW21479	16	0.4978	0.4914	1.3	20

TxtQcType: MR Matrix: AQUEOUS SampleID: AD00074-010

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	61407	SW21479	19	SW21479	18	0.2U	0.2U	---	20
Barium	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20
Calcium	61407	SW21479	19	SW21479	18	16.2117	16.3293	0.72	20
Chromium	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20
Copper	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20
Iron	61407	SW21479	19	SW21479	18	0.3U	0.3U	---	20
Magnesium	61407	SW21479	19	SW21479	18	5U	5U	---	20
Manganese	61407	SW21479	19	SW21479	18	0.04U	0.04U	---	20
Mercury	61407	H21479S	15	H21479S	14	0.50U	0.50U	---	20
Nickel	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20
Potassium	61407	SW21479	18	SW21479	17	5U	5U	---	20
Silver	61407	SW21479	19	SW21479	18	0.02U	0.02U	---	20
Sodium	61407	SW21479	18	SW21479	17	6.9371	6.8734	0.92	20
Vanadium	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20
Zinc	61407	SW21479	19	SW21479	18	0.05U	0.05U	---	20

TxtQcType: MSD Matrix: AQUEOUS SampleID: AD00074-012

Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	61407	SW21479	21	SW21479	20	5.0277	5.0004	.54	20
Barium	61407	SW21479	21	SW21479	20	0.5417	0.5367	.93	20
Calcium	61407	SW21479	21	SW21479	20	66.4695	66.3529	.18	20
Chromium	61407	SW21479	21	SW21479	20	0.5109	0.5068	.8	20
Copper	61407	SW21479	21	SW21479	20	0.5110	0.5034	1.5	20
Iron	61407	SW21479	21	SW21479	20	5.0754	5.0362	.78	20
Magnesium	61407	SW21479	21	SW21479	20	52.5455	52.5734	.053	20
Manganese	61407	SW21479	21	SW21479	20	0.5232	0.5197	.67	20
Mercury	61407	H21479S	17	H21479S	16	10.3800	10.4200	.38	20
Nickel	61407	SW21479	21	SW21479	20	0.5028	0.4995	.65	20
Potassium	61407	SW21479	20	SW21479	19	52.2305	51.2171	2	20
Silver	61407	SW21479	21	SW21479	20	0.0983	0.0977	.59	20
Sodium	61407	SW21479	20	SW21479	19	56.0526	54.5951	2.6	20
Vanadium	61407	SW21479	21	SW21479	20	0.5066	0.5018	.95	20
Zinc	61407	SW21479	21	SW21479	20	0.5107	0.5007	2	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: 61407

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1 ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: SD Matrix: AQUEOUS SampleID: AD00074-010

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff		Limit
Aluminum	61407	SW21479	23	SW21479	18	5	0.0157	0.0674	16	c	10
Barium	61407	SW21479	23	SW21479	18	5	0.0078	0.0364	7.3		10
Calcium	61407	SW21479	23	SW21479	18	5	3.2434	16.3293	0.69		10
Chromium	61407	SW21479	23	SW21479	18	5	0.0011	0.0068	22	c	10
Copper	61407	SW21479	23	SW21479	18	5	0.0007	0.0018	---		10
Iron	61407	SW21479	23	SW21479	18	5	-0.0055	0.0079	---		10
Magnesium	61407	SW21479	23	SW21479	18	5	0.2868	2.0912	31	a	10
Manganese	61407	SW21479	23	SW21479	18	5	0.0041	0.0202	1.3		10
Nickel	61407	SW21479	23	SW21479	18	5	0.0004	0.0005	---		10
Potassium	61407	SW21479	25	SW21479	17	5	0.8621	3.5357	22	a	10
Silver	61407	SW21479	23	SW21479	18	5	0.0000	-0.0001	---		10
Sodium	61407	SW21479	25	SW21479	17	5	1.3428	6.8734	2.3		10
Vanadium	61407	SW21479	23	SW21479	18	5	-0.0002	0.0002	---		10
Zinc	61407	SW21479	23	SW21479	18	5	0.0014	0.0093	---		10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5*RL

c-Serial dilution Out but conc < 10 * IDL

Subcontracted Data

This is the last page of the data generated by Hampton-Clarke.
The following pages were submitted to HC by subcontracted laboratories.



FINAL LAB REPORT

7091521

31700832

03-Oct-2017

Prepared by

SGS NORTH AMERICA

Prepared for

Hampton-Clarke, Inc.

Sherree Baker

137-D Gaither Drive
Mount Laurel, NJ 08054
Phone: 856-780-6058
Email: SBaker@hcvlab.com

This report is approved by

Amy Boehm

amy.boehm@sgs.com

Project Manager

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Results reported relate only to the items tested.

SGS CERTIFICATIONS

Arkansas	88-0682
California (ELAP)	ELAP Cert #2914
CLIA	34D1013708
Connecticut	PH-0258
USDA Soil Permit	P330-17-00055
DoD	2726.01
Florida (Primary NELAP)	E87634
ISO 17025/IEC	2726.01
Louisiana DEQ	4115
Louisiana DOH	LA170030
Maine	2016028
Massachusetts	M-NC919
Minnesota (Primary NELAP For Method 23)	1179213
Mississippi	Reciprocity
Nebraska	NE-OS-33-17
New Hampshire	208317
New Jersey	NC100
New York	11685
North Carolina DEQ	481
North Dakota	R-197
Oregon	NC200002
Pennsylvania	68-03675
South Carolina	99029002
Texas	T104704260
US Coast Guard	16714/159.317/SGS
Virginia	8914
Washington	C913
West Virginia	293

Rev. 04-Aug-2017

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
J	Estimated Concentration.
E	Amount detected is greater than the Upper Calibration Limit
TIC	Tentatively Identified Compound
ND	Not Detected
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
AD00074-001	31700832001	09/13/2017 10:45	09/19/2017 10:15	Water
AD00074-003	31700832002	09/13/2017 10:35	09/19/2017 10:15	Water
AD00074-005	31700832003	09/13/2017 13:00	09/19/2017 10:15	Water
AD00074-007	31700832004	09/13/2017 11:10	09/19/2017 10:15	Water
AD00074-013	31700832007	09/13/2017 12:15	09/19/2017 10:15	Water
AD00074-015	31700832008	09/13/2017 12:12	09/19/2017 10:15	Water
AD00074-017	31700832009	09/13/2017 11:50	09/19/2017 10:15	Water
AD00074-018	31700832010	09/13/2017 16:15	09/19/2017 10:15	Water
AD00074-020	31700832011	09/14/2017 16:25	09/19/2017 10:15	Water
AD00074-022	31700832012	09/14/2017 10:45	09/19/2017 10:15	Water
AD00074-024	31700832013	09/14/2017 10:50	09/19/2017 10:15	Water
AD00074-026	31700832014	09/14/2017 11:20	09/19/2017 10:15	Water
AD00074-028	31700832015	09/14/2017 10:58	09/19/2017 10:15	Water
AD00074-030	31700832016	09/14/2017 15:10	09/19/2017 10:15	Water
AD00074-032	31700832017	09/14/2017 15:00	09/19/2017 10:15	Water

Case Narrative

AD00074-032

PFC E537-A Sample 832_017 - due to particulate matter, 4 cartridges were used for extraction resulting in low recoveries on extraction standards.

Detectable Results Summary

Client Sample ID: **AD00074-001**
Lab Sample ID: 31700832001-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.19	ng/L	
PFPeA	5.93	ng/L	
PFHxA	4.50	ng/L	
PFHpA	3.19	ng/L	
PFOA	9.71	ng/L	
PFNA	1.01	ng/L	J
PFBS	3.64	ng/L	
PFHxS	2.07	ng/L	
PFHpS	0.483	ng/L	J
PFOS	15.8	ng/L	

Client Sample ID: **AD00074-003**
Lab Sample ID: 31700832002-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.10	ng/L	
PFPeA	4.51	ng/L	
PFHxA	4.48	ng/L	
PFHpA	2.49	ng/L	
PFOA	7.44	ng/L	
PFNA	0.843	ng/L	J
PFTriA	0.316	ng/L	J
PFTreA	0.249	ng/L	J
PFBS	2.43	ng/L	
PFHxS	3.80	ng/L	
PFHpS	7.22	ng/L	
PFOS	305	ng/L	

Client Sample ID: **AD00074-005**
Lab Sample ID: 31700832003-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	5.26	ng/L	
PFPeA	3.59	ng/L	
PFHxA	4.06	ng/L	
PFHpA	1.92	ng/L	
PFOA	3.25	ng/L	
PFNA	1.69	ng/L	J
PFDA	1.36	ng/L	J
PFuNA	0.819	ng/L	J
PFDoA	0.270	ng/L	J
PFTriA	0.212	ng/L	J
PFBS	2.30	ng/L	
PFHxS	2.64	ng/L	
PFHpS	0.864	ng/L	J
PFOS	23.9	ng/L	

Detectable Results Summary

Client Sample ID: **AD00074-007**
Lab Sample ID: 31700832004-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.86	ng/L	
PFPeA	4.26	ng/L	
PFHxA	3.77	ng/L	
PFHpA	2.24	ng/L	
PFOA	11.1	ng/L	
PFNA	1.39	ng/L	J
PFDA	0.486	ng/L	J
PFBS	5.71	ng/L	
PFHxS	3.02	ng/L	
PFHpS	0.248	ng/L	J
PFOS	29.6	ng/L	

Client Sample ID: **AD00074-013**
Lab Sample ID: 31700832007-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	0.660	ng/L	J
PFPeA	1.31	ng/L	J
PFHxA	1.61	ng/L	J
PFHpA	0.575	ng/L	J
PFOA	1.97	ng/L	
PFBS	0.543	ng/L	J
PFHxS	1.28	ng/L	J
PFOS	0.642	ng/L	J

Client Sample ID: **AD00074-015**
Lab Sample ID: 31700832008-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.06	ng/L	
PFPeA	4.32	ng/L	
PFHxA	4.35	ng/L	
PFHpA	2.47	ng/L	
PFOA	7.20	ng/L	
PFNA	0.771	ng/L	J
PFTriA	0.283	ng/L	J
PFBS	2.28	ng/L	
PFHxS	3.48	ng/L	
PFHpS	6.40	ng/L	
PFOS	275	ng/L	

Client Sample ID: **AD00074-018**
Lab Sample ID: 31700832010-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	2.99	ng/L	
PFPeA	3.77	ng/L	
PFHxA	4.07	ng/L	
PFHpA	2.27	ng/L	
PFOA	7.02	ng/L	
PFNA	0.408	ng/L	J
PFBS	2.71	ng/L	
PFHxS	10.8	ng/L	
PFHpS	0.237	ng/L	J
PFOS	5.48	ng/L	

Detectable Results Summary

Client Sample ID: **AD00074-020**
Lab Sample ID: 31700832011-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	2.50	ng/L	
PFPeA	3.05	ng/L	
PFHxA	3.54	ng/L	
PFHpA	1.76	ng/L	J
PFOA	6.17	ng/L	
PFBS	1.32	ng/L	J
PFHxS	4.99	ng/L	
PFOS	2.07	ng/L	J

Client Sample ID: **AD00074-022**
Lab Sample ID: 31700832012-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	0.635	ng/L	J
PFPeA	0.887	ng/L	J
PFHxA	1.11	ng/L	J
PFHpA	0.247	ng/L	J
PFOA	1.06	ng/L	J
PFBS	0.293	ng/L	J
PFHxS	0.666	ng/L	J

Client Sample ID: **AD00074-024**
Lab Sample ID: 31700832013-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	4.76	ng/L	
PFPeA	10.7	ng/L	
PFHxA	11.4	ng/L	
PFHpA	3.93	ng/L	
PFOA	7.72	ng/L	
PFBS	11.7	ng/L	
PFHxS	4.71	ng/L	
PFOS	1.88	ng/L	J

Client Sample ID: **AD00074-026**
Lab Sample ID: 31700832014-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.86	ng/L	
PFPeA	5.63	ng/L	
PFHxA	4.86	ng/L	
PFHpA	3.17	ng/L	
PFOA	11.8	ng/L	
PFNA	1.51	ng/L	J
PFBS	2.79	ng/L	
PFHxS	1.95	ng/L	J
PFHpS	0.294	ng/L	J
PFOS	16.2	ng/L	

Detectable Results Summary

Client Sample ID: **AD00074-028**
Lab Sample ID: 31700832015-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	5.85	ng/L	
PFPeA	4.11	ng/L	
PFHxA	4.98	ng/L	
PFHpA	4.05	ng/L	
PFOA	9.97	ng/L	
PFNA	0.944	ng/L	J
PFBS	14.8	ng/L	
PFHxS	1.30	ng/L	J
PFHpS	1.01	ng/L	J
PFOS	50.5	ng/L	

Client Sample ID: **AD00074-030**
Lab Sample ID: 31700832016-A
EPA 537 v1.1

Parameter	Result	Units	
PFBA	3.36	ng/L	
PFPeA	10.7	ng/L	
PFHxA	10.5	ng/L	
PFHpA	4.26	ng/L	
PFOA	12.9	ng/L	
PFNA	1.49	ng/L	J
PFDA	0.440	ng/L	J
PFuNA	0.255	ng/L	J
PFBS	2.33	ng/L	
PFHxS	1.47	ng/L	J
PFHpS	0.498	ng/L	J
PFOS	34.1	ng/L	

Client Sample ID: **AD00074-032**
Lab Sample ID: 31700832017-A
EPA 537 v1.1

Parameter	Result	Units	
PFPeA	3.10	ng/L	
PFHxA	3.07	ng/L	
PFHpA	1.98	ng/L	J
PFOA	9.39	ng/L	
PFNA	1.59	ng/L	J
PFDA	0.597	ng/L	J
PFuNA	0.212	ng/L	J
PFDoA	0.315	ng/L	J
PFTriA	0.295	ng/L	J
PFTreA	0.363	ng/L	J
PFBS	7.90	ng/L	
PFHxS	5.02	ng/L	
PFHpS	0.331	ng/L	J
PFOS	28.3	ng/L	
6:2 FTS	1.74	ng/L	J

Results of **AD00074-001**

Client Sample ID: **AD00074-001**
Client Project ID: **7091521**
Lab Sample ID: 31700832001-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 10:45
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.19**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFPeA	**5.93**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFHxA	**4.50**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFHpA	**3.19**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFOA	**9.71**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFNA	**1.01**	J	0.205	2.05	ng/L	1	09/26/2017 17:36
PFDA	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
PFuNA	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
PFDoA	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
PFTriA	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
PFTreA	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
PFBS	**3.64**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFHxS	**2.07**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFHpS	**0.483**	J	0.205	2.05	ng/L	1	09/26/2017 17:36
PFOS	**15.8**		0.205	2.05	ng/L	1	09/26/2017 17:36
PFDS	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
NMeFOSAA	ND	U	0.512	2.05	ng/L	1	09/26/2017 17:36
NetFOSAA	ND	U	0.512	2.05	ng/L	1	09/26/2017 17:36
6:2 FTS	ND	U	0.512	2.05	ng/L	1	09/26/2017 17:36
8:2 FTS	ND	U	0.205	2.05	ng/L	1	09/26/2017 17:36
Surrogates							
13C2-PFHxA	96.1			70.0-130	%	1	09/26/2017 17:36
13C2-PFDA	85.4			70.0-130	%	1	09/26/2017 17:36
d5-NEtFOSAA	49.1*			70.0-130	%	1	09/26/2017 17:36

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **243.98 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-003**

Client Sample ID: **AD00074-003**
Client Project ID: **7091521**
Lab Sample ID: 31700832002-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 10:35
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.10**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFPeA	**4.51**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFHxA	**4.48**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFHpA	**2.49**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFOA	**7.44**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFNA	**0.843**	J	0.194	1.94	ng/L	1	09/26/2017 18:07
PFDA	ND	U	0.194	1.94	ng/L	1	09/26/2017 18:07
PFuNA	ND	U	0.194	1.94	ng/L	1	09/26/2017 18:07
PFDoA	ND	U	0.194	1.94	ng/L	1	09/26/2017 18:07
PFTriA	**0.316**	J	0.194	1.94	ng/L	1	09/26/2017 18:07
PFTreA	**0.249**	J	0.194	1.94	ng/L	1	09/26/2017 18:07
PFBS	**2.43**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFHxS	**3.80**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFHpS	**7.22**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFOS	**305**		0.194	1.94	ng/L	1	09/26/2017 18:07
PFDS	ND	U	0.194	1.94	ng/L	1	09/26/2017 18:07
NMeFOSAA	ND	U	0.485	1.94	ng/L	1	09/26/2017 18:07
NetFOSAA	ND	U	0.485	1.94	ng/L	1	09/26/2017 18:07
6:2 FTS	ND	U	0.485	1.94	ng/L	1	09/26/2017 18:07
8:2 FTS	ND	U	0.194	1.94	ng/L	1	09/26/2017 18:07
Surrogates							
13C2-PFHxA	90.5			70.0-130	%	1	09/26/2017 18:07
13C2-PFDA	77.9			70.0-130	%	1	09/26/2017 18:07
d5-NEtFOSAA	42.5*			70.0-130	%	1	09/26/2017 18:07

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **257.83 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-005**

Client Sample ID: **AD00074-005**
Client Project ID: **7091521**
Lab Sample ID: 31700832003-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 13:00
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**5.26**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFPeA	**3.59**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFHxA	**4.06**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFHpA	**1.92**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFOA	**3.25**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFNA	**1.69**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFDA	**1.36**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFuNA	**0.819**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFDoA	**0.270**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFTriA	**0.212**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFTreA	ND	U	0.191	1.91	ng/L	1	09/26/2017 18:37
PFBS	**2.30**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFHxS	**2.64**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFHpS	**0.864**	J	0.191	1.91	ng/L	1	09/26/2017 18:37
PFOS	**23.9**		0.191	1.91	ng/L	1	09/26/2017 18:37
PFDS	ND	U	0.191	1.91	ng/L	1	09/26/2017 18:37
NMeFOSAA	ND	U	0.477	1.91	ng/L	1	09/26/2017 18:37
NetFOSAA	ND	U	0.477	1.91	ng/L	1	09/26/2017 18:37
6:2 FTS	ND	U	0.477	1.91	ng/L	1	09/26/2017 18:37
8:2 FTS	ND	U	0.191	1.91	ng/L	1	09/26/2017 18:37
Surrogates							
13C2-PFHxA	89.1			70.0-130	%	1	09/26/2017 18:37
13C2-PFDA	79.7			70.0-130	%	1	09/26/2017 18:37
d5-NEtFOSAA	35.7*			70.0-130	%	1	09/26/2017 18:37

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **262.08 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-007**

Client Sample ID: **AD00074-007**
Client Project ID: **7091521**
Lab Sample ID: 31700832004-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 11:10
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.86**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFPeA	**4.26**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFHxA	**3.77**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFHpA	**2.24**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFOA	**11.1**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFNA	**1.39**	J	0.219	2.19	ng/L	1	09/26/2017 19:08
PFDA	**0.486**	J	0.219	2.19	ng/L	1	09/26/2017 19:08
PFuNA	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
PFDoA	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
PFTriA	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
PFTreA	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
PFBS	**5.71**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFHxS	**3.02**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFHpS	**0.248**	J	0.219	2.19	ng/L	1	09/26/2017 19:08
PFOS	**29.6**		0.219	2.19	ng/L	1	09/26/2017 19:08
PFDS	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
NMeFOSAA	ND	U	0.546	2.19	ng/L	1	09/26/2017 19:08
NetFOSAA	ND	U	0.546	2.19	ng/L	1	09/26/2017 19:08
6:2 FTS	ND	U	0.546	2.19	ng/L	1	09/26/2017 19:08
8:2 FTS	ND	U	0.219	2.19	ng/L	1	09/26/2017 19:08
Surrogates							
13C2-PFHxA	100			70.0-130	%	1	09/26/2017 19:08
13C2-PFDA	95.6			70.0-130	%	1	09/26/2017 19:08
d5-NEtFOSAA	59.1*			70.0-130	%	1	09/26/2017 19:08

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **228.82 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-013**

Client Sample ID: **AD00074-013**
Client Project ID: **7091521**
Lab Sample ID: 31700832007-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 12:15
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**0.660**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFPeA	**1.31**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFHxA	**1.61**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFHpA	**0.575**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFOA	**1.97**		0.189	1.89	ng/L	1	09/26/2017 20:40
PFNA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFDA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFuNA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFDoA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFTriA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFTreA	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFBS	**0.543**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFHxS	**1.28**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFHpS	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
PFOS	**0.642**	J	0.189	1.89	ng/L	1	09/26/2017 20:40
PFDS	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
NMeFOSAA	ND	U	0.472	1.89	ng/L	1	09/26/2017 20:40
NetFOSAA	ND	U	0.472	1.89	ng/L	1	09/26/2017 20:40
6:2 FTS	ND	U	0.472	1.89	ng/L	1	09/26/2017 20:40
8:2 FTS	ND	U	0.189	1.89	ng/L	1	09/26/2017 20:40
Surrogates							
13C2-PFHxA	70.9			70.0-130	%	1	09/26/2017 20:40
13C2-PFDA	67.2*			70.0-130	%	1	09/26/2017 20:40
d5-NEtFOSAA	39.5*			70.0-130	%	1	09/26/2017 20:40

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **265.09 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-015**

Client Sample ID: **AD00074-015**
Client Project ID: **7091521**
Lab Sample ID: 31700832008-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 12:12
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.06**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFPeA	**4.32**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFHxA	**4.35**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFHpA	**2.47**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFOA	**7.20**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFNA	**0.771**	J	0.205	2.05	ng/L	1	09/26/2017 21:11
PFDA	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
PFuNA	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
PFDoA	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
PFTriA	**0.283**	J	0.205	2.05	ng/L	1	09/26/2017 21:11
PFTreA	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
PFBS	**2.28**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFHxS	**3.48**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFHpS	**6.40**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFOS	**275**		0.205	2.05	ng/L	1	09/26/2017 21:11
PFDS	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
NMeFOSAA	ND	U	0.512	2.05	ng/L	1	09/26/2017 21:11
NetFOSAA	ND	U	0.512	2.05	ng/L	1	09/26/2017 21:11
6:2 FTS	ND	U	0.512	2.05	ng/L	1	09/26/2017 21:11
8:2 FTS	ND	U	0.205	2.05	ng/L	1	09/26/2017 21:11
Surrogates							
13C2-PFHxA	92.3			70.0-130	%	1	09/26/2017 21:11
13C2-PFDA	81.6			70.0-130	%	1	09/26/2017 21:11
d5-NEtFOSAA	49.8*			70.0-130	%	1	09/26/2017 21:11

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **243.92 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-017**

Client Sample ID: **AD00074-017**
Client Project ID: **7091521**
Lab Sample ID: 31700832009-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 11:50
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFPeA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFHxA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFHpA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFOA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFNA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFDA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFuNA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFDoA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFTriA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFTreA	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFBS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFHxS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFHpS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFOS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
PFDS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
NMeFOSAA	ND	U	0.514	2.05	ng/L	1	09/26/2017 22:12
NetFOSAA	ND	U	0.514	2.05	ng/L	1	09/26/2017 22:12
6:2 FTS	ND	U	0.514	2.05	ng/L	1	09/26/2017 22:12
8:2 FTS	ND	U	0.205	2.05	ng/L	1	09/26/2017 22:12
Surrogates							
13C2-PFHxA	108			70.0-130	%	1	09/26/2017 22:12
13C2-PFDA	98.5			70.0-130	%	1	09/26/2017 22:12
d5-NEtFOSAA	71.4			70.0-130	%	1	09/26/2017 22:12

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **243.42 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-018**

Client Sample ID: **AD00074-018**
Client Project ID: **7091521**
Lab Sample ID: 31700832010-A
Lab Project ID: 31700832

Collection Date: 09/13/2017 16:15
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**2.99**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFPeA	**3.77**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFHxA	**4.07**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFHpA	**2.27**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFOA	**7.02**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFNA	**0.408**	J	0.213	2.13	ng/L	1	09/26/2017 22:43
PFDA	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
PFuNA	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
PFDoA	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
PFTriA	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
PFTreA	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
PFBS	**2.71**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFHxS	**10.8**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFHpS	**0.237**	J	0.213	2.13	ng/L	1	09/26/2017 22:43
PFOS	**5.48**		0.213	2.13	ng/L	1	09/26/2017 22:43
PFDS	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
NMeFOSAA	ND	U	0.534	2.13	ng/L	1	09/26/2017 22:43
NetFOSAA	ND	U	0.534	2.13	ng/L	1	09/26/2017 22:43
6:2 FTS	ND	U	0.534	2.13	ng/L	1	09/26/2017 22:43
8:2 FTS	ND	U	0.213	2.13	ng/L	1	09/26/2017 22:43
Surrogates							
13C2-PFHxA	75.5			70.0-130	%	1	09/26/2017 22:43
13C2-PFDA	67.8*			70.0-130	%	1	09/26/2017 22:43
d5-NEtFOSAA	42.4*			70.0-130	%	1	09/26/2017 22:43

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **234.23 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-020**

Client Sample ID: **AD00074-020**
Client Project ID: **7091521**
Lab Sample ID: 31700832011-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 16:25
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**2.50**		0.208	2.08	ng/L	1	09/26/2017 23:13
PFPeA	**3.05**		0.208	2.08	ng/L	1	09/26/2017 23:13
PFHxA	**3.54**		0.208	2.08	ng/L	1	09/26/2017 23:13
PFHpA	**1.76**	J	0.208	2.08	ng/L	1	09/26/2017 23:13
PFOA	**6.17**		0.208	2.08	ng/L	1	09/26/2017 23:13
PFNA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFDA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFuNA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFDoA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFTriA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFTreA	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFBS	**1.32**	J	0.208	2.08	ng/L	1	09/26/2017 23:13
PFHxS	**4.99**		0.208	2.08	ng/L	1	09/26/2017 23:13
PFHpS	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
PFOS	**2.07**	J	0.208	2.08	ng/L	1	09/26/2017 23:13
PFDS	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
NMeFOSAA	ND	U	0.520	2.08	ng/L	1	09/26/2017 23:13
NetFOSAA	ND	U	0.520	2.08	ng/L	1	09/26/2017 23:13
6:2 FTS	ND	U	0.520	2.08	ng/L	1	09/26/2017 23:13
8:2 FTS	ND	U	0.208	2.08	ng/L	1	09/26/2017 23:13
Surrogates							
13C2-PFHxA	80.6			70.0-130	%	1	09/26/2017 23:13
13C2-PFDA	74.0			70.0-130	%	1	09/26/2017 23:13
d5-NEtFOSAA	50.6*			70.0-130	%	1	09/26/2017 23:13

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **240.45 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-022**

Client Sample ID: **AD00074-022**
Client Project ID: **7091521**
Lab Sample ID: 31700832012-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 10:45
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**0.635**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFPeA	**0.887**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFHxA	**1.11**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFHpA	**0.247**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFOA	**1.06**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFNA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFDA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFuNA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFDoA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFTriA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFTreA	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFBS	**0.293**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFHxS	**0.666**	J	0.207	2.07	ng/L	1	09/26/2017 23:44
PFHpS	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFOS	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
PFDS	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
NMeFOSAA	ND	U	0.519	2.07	ng/L	1	09/26/2017 23:44
NetFOSAA	ND	U	0.519	2.07	ng/L	1	09/26/2017 23:44
6:2 FTS	ND	U	0.519	2.07	ng/L	1	09/26/2017 23:44
8:2 FTS	ND	U	0.207	2.07	ng/L	1	09/26/2017 23:44
Surrogates							
13C2-PFHxA	101			70.0-130	%	1	09/26/2017 23:44
13C2-PFDA	90.6			70.0-130	%	1	09/26/2017 23:44
d5-NEtFOSAA	67.9*			70.0-130	%	1	09/26/2017 23:44

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **241 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-024**

Client Sample ID: **AD00074-024**
Client Project ID: **7091521**
Lab Sample ID: 31700832013-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 10:50
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**4.76**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFPeA	**10.7**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFHxA	**11.4**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFHpA	**3.93**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFOA	**7.72**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFNA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFDA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFuNA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFDoA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFTriA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFTreA	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFBS	**11.7**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFHxS	**4.71**		0.207	2.07	ng/L	1	09/27/2017 0:15
PFHpS	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
PFOS	**1.88**	J	0.207	2.07	ng/L	1	09/27/2017 0:15
PFDS	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
NMeFOSAA	ND	U	0.517	2.07	ng/L	1	09/27/2017 0:15
NetFOSAA	ND	U	0.517	2.07	ng/L	1	09/27/2017 0:15
6:2 FTS	ND	U	0.517	2.07	ng/L	1	09/27/2017 0:15
8:2 FTS	ND	U	0.207	2.07	ng/L	1	09/27/2017 0:15
Surrogates							
13C2-PFHxA	90.4			70.0-130	%	1	09/27/2017 0:15
13C2-PFDA	84.9			70.0-130	%	1	09/27/2017 0:15
d5-NEtFOSAA	63.4*			70.0-130	%	1	09/27/2017 0:15

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **241.74 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-026**

Client Sample ID: **AD00074-026**
Client Project ID: **7091521**
Lab Sample ID: 31700832014-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 11:20
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.86**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFPeA	**5.63**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFHxA	**4.86**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFHpA	**3.17**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFOA	**11.8**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFNA	**1.51**	J	0.212	2.12	ng/L	1	09/27/2017 0:46
PFDA	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
PFuNA	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
PFDoA	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
PFTriA	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
PFTreA	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
PFBS	**2.79**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFHxS	**1.95**	J	0.212	2.12	ng/L	1	09/27/2017 0:46
PFHpS	**0.294**	J	0.212	2.12	ng/L	1	09/27/2017 0:46
PFOS	**16.2**		0.212	2.12	ng/L	1	09/27/2017 0:46
PFDS	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
NMeFOSAA	ND	U	0.529	2.12	ng/L	1	09/27/2017 0:46
NetFOSAA	ND	U	0.529	2.12	ng/L	1	09/27/2017 0:46
6:2 FTS	ND	U	0.529	2.12	ng/L	1	09/27/2017 0:46
8:2 FTS	ND	U	0.212	2.12	ng/L	1	09/27/2017 0:46
Surrogates							
13C2-PFHxA	71.7			70.0-130	%	1	09/27/2017 0:46
13C2-PFDA	81.5			70.0-130	%	1	09/27/2017 0:46
d5-NEtFOSAA	56.6*			70.0-130	%	1	09/27/2017 0:46

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **236.13 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-028**

Client Sample ID: **AD00074-028**
Client Project ID: **7091521**
Lab Sample ID: 31700832015-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 10:58
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**5.85**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFPeA	**4.11**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFHxA	**4.98**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFHpA	**4.05**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFOA	**9.97**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFNA	**0.944**	J	0.206	2.06	ng/L	1	09/27/2017 1:16
PFDA	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
PFuNA	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
PFDoA	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
PFTriA	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
PFTreA	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
PFBS	**14.8**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFHxS	**1.30**	J	0.206	2.06	ng/L	1	09/27/2017 1:16
PFHpS	**1.01**	J	0.206	2.06	ng/L	1	09/27/2017 1:16
PFOS	**50.5**		0.206	2.06	ng/L	1	09/27/2017 1:16
PFDS	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
NMeFOSAA	ND	U	0.514	2.06	ng/L	1	09/27/2017 1:16
NetFOSAA	ND	U	0.514	2.06	ng/L	1	09/27/2017 1:16
6:2 FTS	ND	U	0.514	2.06	ng/L	1	09/27/2017 1:16
8:2 FTS	ND	U	0.206	2.06	ng/L	1	09/27/2017 1:16
Surrogates							
13C2-PFHxA	91.5			70.0-130	%	1	09/27/2017 1:16
13C2-PFDA	106			70.0-130	%	1	09/27/2017 1:16
d5-NEtFOSAA	61.3*			70.0-130	%	1	09/27/2017 1:16

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **243 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

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Results of **AD00074-030**

Client Sample ID: **AD00074-030**
Client Project ID: **7091521**
Lab Sample ID: 31700832016-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 15:10
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	**3.36**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFPeA	**10.7**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFHxA	**10.5**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFHpA	**4.26**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFOA	**12.9**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFNA	**1.49**	J	0.202	2.02	ng/L	1	09/27/2017 1:47
PFDA	**0.440**	J	0.202	2.02	ng/L	1	09/27/2017 1:47
PFuNA	**0.255**	J	0.202	2.02	ng/L	1	09/27/2017 1:47
PFDoA	ND	U	0.202	2.02	ng/L	1	09/27/2017 1:47
PFTriA	ND	U	0.202	2.02	ng/L	1	09/27/2017 1:47
PFTreA	ND	U	0.202	2.02	ng/L	1	09/27/2017 1:47
PFBS	**2.33**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFHxS	**1.47**	J	0.202	2.02	ng/L	1	09/27/2017 1:47
PFHpS	**0.498**	J	0.202	2.02	ng/L	1	09/27/2017 1:47
PFOS	**34.1**		0.202	2.02	ng/L	1	09/27/2017 1:47
PFDS	ND	U	0.202	2.02	ng/L	1	09/27/2017 1:47
NMeFOSAA	ND	U	0.505	2.02	ng/L	1	09/27/2017 1:47
NetFOSAA	ND	U	0.505	2.02	ng/L	1	09/27/2017 1:47
6:2 FTS	ND	U	0.505	2.02	ng/L	1	09/27/2017 1:47
8:2 FTS	ND	U	0.202	2.02	ng/L	1	09/27/2017 1:47
Surrogates							
13C2-PFDA	71.5			70.0-130	%	1	09/27/2017 1:47
d5-NEtFOSAA	37.8*			70.0-130	%	1	09/27/2017 1:47

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **247.38 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Results of **AD00074-032**

Client Sample ID: **AD00074-032**
Client Project ID: **7091521**
Lab Sample ID: 31700832017-A
Lab Project ID: 31700832

Collection Date: 09/14/2017 15:00
Received Date: 09/19/2017 10:15
Matrix: Water

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
PFBA	ND	U	0.208	2.08	ng/L	1	09/27/2017 2:18
PFPeA	**3.10**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFHxA	**3.07**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFHpA	**1.98**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFOA	**9.39**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFNA	**1.59**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFDA	**0.597**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFuNA	**0.212**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFDoA	**0.315**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFTriA	**0.295**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFTreA	**0.363**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFBS	**7.90**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFHxS	**5.02**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFHpS	**0.331**	J	0.208	2.08	ng/L	1	09/27/2017 2:18
PFOS	**28.3**		0.208	2.08	ng/L	1	09/27/2017 2:18
PFDS	ND	U	0.208	2.08	ng/L	1	09/27/2017 2:18
NMeFOSAA	ND	U	0.521	2.08	ng/L	1	09/27/2017 2:18
NetFOSAA	ND	U	0.521	2.08	ng/L	1	09/27/2017 2:18
6:2 FTS	**1.74**	J	0.521	2.08	ng/L	1	09/27/2017 2:18
8:2 FTS	ND	U	0.208	2.08	ng/L	1	09/27/2017 2:18
Surrogates							
13C2-PFHxA	22.5*			70.0-130	%	1	09/27/2017 2:18
13C2-PFDA	39.9*			70.0-130	%	1	09/27/2017 2:18
d5-NEtFOSAA	36.3*			70.0-130	%	1	09/27/2017 2:18

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Prep Initial Wt./Vol.: **239.86 mL**
Prep Extract Vol: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

Batch Summary

Analytical Method: EPA 537 v1.1

Prep Method: EPA 537 1.1 PREP
Prep Batch: HXX2056
Prep Date: 09/25/2017 19:10

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 141065 [HXX/2056]	212704	09/26/2017 16:34	XLC1070	TQS1	ADM
LCS for HBN 141065 [HXX/2056]	212705	09/26/2017 17:05	XLC1070	TQS1	ADM
AD00074-001	31700832001	09/26/2017 17:36	XLC1070	TQS1	ADM
AD00074-003	31700832002	09/26/2017 18:07	XLC1070	TQS1	ADM
AD00074-005	31700832003	09/26/2017 18:37	XLC1070	TQS1	ADM
AD00074-007	31700832004	09/26/2017 19:08	XLC1070	TQS1	ADM
AD00074-008	31700832005	09/26/2017 19:39	XLC1070	TQS1	ADM
AD00074-009	31700832006	09/26/2017 20:09	XLC1070	TQS1	ADM
AD00074-013	31700832007	09/26/2017 20:40	XLC1070	TQS1	ADM
AD00074-015	31700832008	09/26/2017 21:11	XLC1070	TQS1	ADM
AD00074-017	31700832009	09/26/2017 22:12	XLC1070	TQS1	ADM
AD00074-018	31700832010	09/26/2017 22:43	XLC1070	TQS1	ADM
AD00074-020	31700832011	09/26/2017 23:13	XLC1070	TQS1	ADM
AD00074-022	31700832012	09/26/2017 23:44	XLC1070	TQS1	ADM
AD00074-024	31700832013	09/27/2017 00:15	XLC1070	TQS1	ADM
AD00074-026	31700832014	09/27/2017 00:46	XLC1070	TQS1	ADM
AD00074-028	31700832015	09/27/2017 01:16	XLC1070	TQS1	ADM
AD00074-030	31700832016	09/27/2017 01:47	XLC1070	TQS1	ADM
AD00074-032	31700832017	09/27/2017 02:18	XLC1070	TQS1	ADM

Method Blank

Blank ID: MB for HBN 141065 [HXX/2056] Matrix: Water
Blank Lab ID: 212704
QC for Samples:
31700832001, 31700832002, 31700832003, 31700832004, 31700832007, 31700832008, 31700832009, 31700832010, 31700832011, 31700832012, 31700832013, 31700832014, 31700832015, 31700832016, 31700832017

Results by **EPA 537 v1.1**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
6:2 FTS	ND	U	0.500	2.00	ng/L	1
8:2 FTS	ND	U	0.200	2.00	ng/L	1
NetFOSAA	ND	U	0.500	2.00	ng/L	1
NMeFOSAA	ND	U	0.500	2.00	ng/L	1
PFBA	ND	U	0.200	2.00	ng/L	1
PFBS	ND	U	0.200	2.00	ng/L	1
PFDA	ND	U	0.200	2.00	ng/L	1
PFDoA	ND	U	0.200	2.00	ng/L	1
PFDS	ND	U	0.200	2.00	ng/L	1
PFHpA	ND	U	0.200	2.00	ng/L	1
PFHpS	ND	U	0.200	2.00	ng/L	1
PFHxA	ND	U	0.200	2.00	ng/L	1
PFHxS	ND	U	0.200	2.00	ng/L	1
PFNA	ND	U	0.200	2.00	ng/L	1
PFOA	ND	U	0.200	2.00	ng/L	1
PFOS	ND	U	0.200	2.00	ng/L	1
PFPeA	ND	U	0.200	2.00	ng/L	1
PFTreA	ND	U	0.200	2.00	ng/L	1
PFTriA	ND	U	0.200	2.00	ng/L	1
PFuNA	ND	U	0.200	2.00	ng/L	1
Surrogates						
13C2-PFDA	95.6			70.0-130	%	1
13C2-PFHxA	99.6			70.0-130	%	1
d5-NEtFOSAA	79.6			70.0-130	%	1

Batch Information

Analytical Batch: XLC1070
Analytical Method: EPA 537 v1.1
Instrument: TQS1
Analyst: ADM

Prep Batch: HXX2056
Prep Method: EPA 537 1.1 PREP
Prep Date/Time: 9/25/2017 7:10:35PM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 141065 [HXX/2056]
Blank Spike Lab ID: 212705
Date Analyzed: 09/26/2017 17:05

Matrix: Water

QC for Samples: 31700832001, 31700832002, 31700832003, 31700832004, 31700832007, 31700832008, 31700832009, 31700832010, 31700832011, 31700832012, 31700832013, 31700832014, 31700832015, 31700832016, 31700832017

Results by **EPA 537 v1.1**

Blank Spike (ng/L)

Parameter	Spike	Result	Rec (%)	CL
6:2 FTS	100	94.9	95	70.0-130
8:2 FTS	100	88.3	88.3	70.0-130
NetFOSAA	100	93.6	93.6	70.0-130
NMeFOSAA	100	98.5	98.5	70.0-130
PFBA	100	88.5	88.5	70.0-130
PFBS	100	84.5	84.5	70.0-130
PFDA	100	94.5	94.5	70.0-130
PFDoA	100	86.6	86.6	70.0-130
PFDS	100	85.2	85.2	70.0-130
PFHpA	100	91.8	91.8	70.0-130
PFHpS	100	85.2	85.2	70.0-130
PFHxA	100	93.5	93.5	70.0-130
PFHxS	100	83.1	83.1	70.0-130
PFNA	100	95.0	95	70.0-130
PFOA	100	86.3	86.3	70.0-130
PFOS	100	80.7	80.7	70.0-130
PFPeA	100	88.1	88.1	70.0-130
PFTreA	100	97.0	97	70.0-130
PFTriA	100	101	101	70.0-130
PFuNA	100	104	104	70.0-130
Surrogates				
13C2-PFDA			112	70.0-130
13C2-PFHxA			102	70.0-130
d5-NEtFOSAA			88	70.0-130

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
Spike Init Wt./Vol.: **250 mL** Extract Vol: **1 mL**
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 10/03/2017

N.C. Certification # 481

Matrix Spike Summary

Original Sample ID: 31700832004 (AD00074-007)
MS Sample ID: 31700832005
MSD Sample ID: 31700832006

Analysis Date: 09/26/2017 19:08
Analysis Date: 09/26/2017 19:39
Analysis Date: 09/26/2017 20:09
Matrix: Water

QC for Samples: 31700832001, 31700832002, 31700832003, 31700832004, 31700832007, 31700832008, 31700832009, 31700832010, 31700832011, 31700832012, 31700832013, 31700832014, 31700832015, 31700832016, 31700832017

Results by **EPA 537 v1.1**

		Matrix Spike (ng/L)			Spike Duplicate (ng/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
PFBA	3.86	102	95.8	90.3	99.6	97.0	93.5	70.0-130	1.2	30.00
PFPeA	4.26	102	103	96.7	99.6	98.2	94.4	70.0-130	4.8	30.00
PFHxA	3.77	102	103	97.2	99.6	101	97.3	70.0-130	2.0	30.00
PFHpA	2.24	102	101	96.9	99.6	94.7	92.9	70.0-130	6.4	30.00
PFOA	11.1	102	111	98	99.6	104	93.2	70.0-130	6.5	30.00
PFNA	1.39	102	111	109	99.6	107	107	70.0-130	3.7	30.00
PFDA	0.486	102	100	98.6	99.6	98.5	99	70.0-130	1.5	30.00
PFuNA	ND	102	126	124	99.6	124	125	70.0-130	1.6	30.00
PFDoA	ND	102	104	102	99.6	105	106	70.0-130	0.96	30.00
PFTriA	ND	102	126	124	99.6	124	125	70.0-130	1.6	30.00
PFTreA	ND	102	127	124	99.6	126	127	70.0-130	0.79	30.00
PFBS	5.71	102	114	106	99.6	113	108	70.0-130	0.88	30.00
PFHxS	3.02	102	104	99.6	99.6	103	100	70.0-130	0.97	30.00
PFHpS	0.248	102	110	108	99.6	116	117	70.0-130	5.3	30.00
PFOS	29.6	102	129	97.6	99.6	136	107	70.0-130	5.3	30.00
PFDS	ND	102	112	110	99.6	116	117	70.0-130	3.5	30.00
NMeFOSAA	ND	102	141	138 *	99.6	120	120	70.0-130	16	30.00
NetFOSAA	ND	102	101	98.9	99.6	100	101	70.0-130	1.00	30.00
6:2 FTS	ND	102	126	123	99.6	117	117	70.0-130	7.4	30.00
8:2 FTS	ND	102	104	102	99.6	98.7	99.1	70.0-130	5.2	30.00
Surrogates										
13C2-PFHxA				87.6			85.6	70.0-130		
13C2-PFDA				91.1			84.1	70.0-130		
d5-NEtFOSAA				54.1 *			55.5 *	70.0-130		

Batch Information

Analytical Batch: **XLC1070**
Analytical Method: **EPA 537 v1.1**
Instrument: **TQS1**
Analyst: **ADM**

Prep Batch: **HXX2056**
Prep Method: **EPA 537 1.1 PREP**
Prep Date/Time: **09/25/2017 19:10**
MS Init Wt./Vol.: **245.45 mL** Extract Vol.: **1 mL**
MSD Init Wt./Vol.: **251.07 mL** Extract Vol.: **1 mL**

Print Date: 10/03/2017

N.C. Certification # 481

317000832

CHAIN OF CUSTODY RECORD

Hampton-Clarke, Inc.
175 US Hwy 46 West
Fairfield, New Jersey, 07004
Ph:800-426-9992 Fax:973-439-1458

pg 1 of 2

Report To:
Hampton-Clarke, Inc.:
Attn:Reporting
175 Route 46 West
Fairfield, New Jersey 07004

Invoice To:
Hampton-Clarke, Inc.:
Attn:Accounting
175 Route 46 West
Fairfield, New Jersey 07004

Project #: 7091521
CocID#: 5538

FINAL RESULTS TO: subresults@hcvlab.com
PRELIM/VERBAL RESULTS TO: subresults@hcvlab.com

EDD: NEW JERSEY HAZRESULT OR EQUIS EZEDD REQUIRED FOR ALL DATA SUBMITTALS!

Turn Around Time: Standard
Report Type: NYDOH-CatA (STAND
Preliminary Due Date: 10/3/2017
Hard Copy Due Date: 10/10/2017

Sample Number:	Client ID	Matrix:	Date Collected:	Time Collected:	Analysis Requested
AD00074-001	LMW-2	Aqueous	9/13/2017	10:45:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-003	LMW-3	Aqueous	9/13/2017	10:35:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-005	LMW-4	Aqueous	9/13/2017	1:00:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-007	LMW-5	Aqueous	9/13/2017	11:10:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-008	LMW-5 MS	Aqueous	9/13/2017	11:10:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-009	LMW-5 MSD	Aqueous	9/13/2017	11:10:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-013	LMW-6	Aqueous	9/13/2017	12:15:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-015	LMW-53	Aqueous	9/13/2017	12:12:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-017	LFB-20170913	Aqueous	9/13/2017	11:50:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-018	LMW-21	Aqueous	9/13/2017	4:15:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)

Relinquished By:	Accepted By:	Date:	Time:
		9/18/17	17
		9/19/17	1015

Comments, Notes, Special Requirements, HAZARDS

9/18/17

on ice
0.4 °C

Cooler Temp: 0.4 °C

HC Lab Use Only **Subcontracted Lab Id and Contact:** SGS LAB, Richard Sutler, (910) 350-1903, LabID: H, 5500 Business Drive, , Wilmington, NC, 28405

317000832

CHAIN OF CUSTODY RECORD

Hampton-Clarke, Inc.
175 US Hwy 46 West
Fairfield, New Jersey, 07004
Ph:800-426-9992 Fax:973-439-1458

Report To:	Invoice To:	Project #:	CocID#:
Hampton-Clarke, Inc.: Attn:Reporting 175 Route 46 West Fairfield, New Jersey 07004	Hampton-Clarke, Inc.: Attn:Accounting 175 Route 46 West Fairfield, New Jersey 07004	7091521	5538

FINAL RESULTS TO: subresults@hcvlab.com
PRELIM/VERBAL RESULTS TO: subresults@hcvlab.com

EDD: NEW JERSEY HAZRESULT OR EQUIS EZEDD REQUIRED FOR ALL DATA SUBMITTALS!

Turn Around Time: Standard **Preliminary Due Date:** 10/3/2017
Report Type: NYDOH-CatA (STAND **Hard Copy Due Date:** 10/10/2017

Sample Number:	Client ID	Matrix:	Date Collected:	Time Collected:	Analysis Requested
AD00074-020	LMW-20	Aqueous	9/14/2017	4:25:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-022	LMW-19	Aqueous	9/14/2017	10:45:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-024	LMW-18	Aqueous	9/14/2017	10:50:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-026	LMW-16	Aqueous	9/14/2017	11:20:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-028	LMW-10	Aqueous	9/14/2017	10:58:00 AM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-030	LMW-12	Aqueous	9/14/2017	3:10:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)
AD00074-032	LMW-14	Aqueous	9/14/2017	3:00:00 PM	PFAs EPA537 Mod 20 compounds:(Analysis Method:EPA 537 mod)

Relinquished By:	Accepted By:	Date:	Time:	Comments, Notes, Special Requirements, HAZARDS
				DB 9/18/17 on ice 0.4 °C
		9/19/17	1015	Cooler Temp: 0.4 °C

Subcontracted Lab Id and Contact: SGS LAB, Richard Sutler, (910) 350-1903, LabID: H, 5500 Business Drive, , Wilmington, NC, 28405

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Hampton-Clarke** Work Order No.: **31700832**

1. [x] Shipped
   [ ] Hand Delivered

2. [x] COC Present on Receipt
   [ ] No COC
   [ ] Additional Transmittal Forms

3. [ ] Custody Tape on Container
   [x] No Custody Tape

4. [x] Samples Intact
   [ ] Samples Broken / Leaking

5. [x] Chilled on Receipt Actual Temp.(s) in °C: 0.4 Thermometer ID#:
   [ ] Ambient on Receipt
   [ ] Walk-in on Ice; Coming down to temp.
   [ ] Temperature Blank Present
   [ ] WV samples-proxy not allowed

6. [x] Sufficient Sample Submitted
   [ ] Insufficient Sample Submitted

7. [ ] Chlorine absent
   [ ] HNO3 < 2
   [ ] HCL < 2
   [x] Additional Preservatives verified (see notes) TRIZMA pre-preserved

8. [x] Received Within Holding Time
   [ ] Not Received Within Holding Time

9. [x] No Discrepancies Noted
   [ ] Discrepancies Noted
   [ ] NCDENR notified of Discrepancies*

10. [ ] No Headspace present in VOC vials n/a
    [ ] Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: ajb
Date: 9/19/2017

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.11

Hampton-Clarke
Analytical & Field Services

175 ROUTE 46 WEST, UNIT D · FAIRFIELD, NJ 07004
2 MADISON ROAD, FAIRFIELD, NJ 07004
800-426-9992 · 973-244-9770
FAX: 973-244-9787
WWW.HCVLAB.COM

Project: Liberty

Client PO: 77415, line 4 Proj#60277021

Report To: AECOM
100 Red School House Rd.
Suite B-1
Chestnut Ridge, NY 10977

Attn: Paul Kareth

Received Date: 11/10/2017

Report Date: 11/29/2017

Deliverables: NYDOH-CatB

Lab ID: AD01096

Lab Project No: 7111017

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) NY (ELAP11408) CT (PH-0671)
PA (68-00463) KY (90124)

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SDG Narrative

HC Case Narrative

Client: AECOM
Project: Liberty

HC Project: 7111017

Hampton-Clarke (HC) received the following samples on 11/10/2017:

Client ID	HC Sample ID	Matrix	Analysis
LMW-19	AD01096-001	Aqueous	BN (8270D)
LMW-19 MS	AD01096-002	Aqueous	BN (8270D)
LMW-19 MSD	AD01096-003	Aqueous	BN (8270D)
LMW-18	AD01096-004	Aqueous	BN (8270D)
LMW-69	AD01096-005	Aqueous	BN (8270D)
LMW-2	AD01096-006	Aqueous	BN (8270D)
LMW-3	AD01096-007	Aqueous	BN (8270D)
LMW-4	AD01096-008	Aqueous	BN (8270D)
LMW-5	AD01096-009	Aqueous	BN (8270D)
LMW-6	AD01096-010	Aqueous	BN (8270D)
LMW-10	AD01096-011	Aqueous	BN (8270D)
LMW-16	AD01096-012	Aqueous	BN (8270D)
LMW-20	AD01096-013	Aqueous	BN (8270D)
LMW-21	AD01096-014	Aqueous	BN (8270D)
LMW-12	AD01096-015	Aqueous	BN (8270D)
LMW-14	AD01096-016	Aqueous	BN (8270D)
LFB-20171108	AD01096-017	Aqueous	BN (8270D)

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.

Base Neutral/Acid Extractable Analysis:

Sample AD01096-015 was analyzed at a dilution due to high concentration of non-target analytes.

The Method Blank Spike for batches 63387, 63402, and 63412 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The MS/MSD RPD, Matrix Spike and Matrix Spike Duplicate for batch 63387 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

Sample AD01096-015 had one or more surrogate recoveries outside QC limits. The sample was reanalyzed confirming recoveries outside QC limits due to matrix interference. The initial analysis is reported. Please refer to the applicable Form 2 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

11/29/2017
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: AECOM
Project: Liberty

HC Project #: 7111017

Sample ID: LMW-19
Lab#: AD01096-001
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-19 MS
Lab#: AD01096-002
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.50	31

Sample ID: LMW-19 MSD
Lab#: AD01096-003
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.50	30

Sample ID: LMW-18
Lab#: AD01096-004
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-69
Lab#: AD01096-005
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-2
Lab#: AD01096-006
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-3
Lab#: AD01096-007
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-4
Lab#: AD01096-008
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-5
Lab#: AD01096-009
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-6
Lab#: AD01096-010
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-10
Lab#: AD01096-011
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-16
Lab#: AD01096-012
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-20
Lab#: AD01096-013
Matrix: Aqueous
Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-21
Lab#: AD01096-014
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LMW-12
Lab#: AD01096-015
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	5	ug/l	1.2	ND

Sample ID: LMW-14
Lab#: AD01096-016
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Sample ID: LFB-20171108
Lab#: AD01096-017
Matrix: Aqueous

Collection Date: 11/8/2017
Receipt Date: 11/10/2017

Base Neutrals (no search) 8270

Analyte	DF	Units	RL	Result
1,4-Dioxane	1	ug/l	0.25	ND

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-001
Client Id: LMW-19
Data File: 7M87609.D
Analysis Date: 11/13/17 15:31
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 SEMIVOLATILE REPORT

Sample Number: AD01096-002(MS:AD01
Client Id: LMW-19 MS
Data File: 7M87610.D
Analysis Date: 11/13/17 15:54
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 1ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.50	31				

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-003(MSD:AD
Client Id: LMW-19 MSD
Data File: 7M87611.D
Analysis Date: 11/13/17 16:18
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 1ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	**1,4-Dioxane**	**0.50**	**30**				

Worksheet #: 444671 *Total Target Concentration* 30 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 usea
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-004
Client Id: LMW-18
Data File: 7M87612.D
Analysis Date: 11/13/17 16:41
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-005
Client Id: LMW-69
Data File: 7M87613.D
Analysis Date: 11/13/17 17:04
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 SEMIVOLATILE REPORT

Sample Number: AD01096-006
Client Id: LMW-2
Data File: 7M87614.D
Analysis Date: 11/13/17 17:28
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-007
Client Id: LMW-3
Data File: 7M87615.D
Analysis Date: 11/13/17 17:51
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-008
Client Id: LMW-4
Data File: 7M87616.D
Analysis Date: 11/13/17 18:15
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 usea

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-009
Client Id: LMW-5
Data File: 7M87617.D
Analysis Date: 11/13/17 18:38
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-010
Client Id: LMW-6
Data File: 7M87618.D
Analysis Date: 11/13/17 19:01
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 SEMIVOLATILE REPORT

Sample Number: AD01096-011
Client Id: LMW-10
Data File: 7M87619.D
Analysis Date: 11/13/17 19:25
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 SEMIVOLATILE REPORT

Sample Number: AD01096-012
Client Id: LMW-16
Data File: 7M87620.D
Analysis Date: 11/13/17 19:48
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-013
Client Id: LMW-20
Data File: 7M87621.D
Analysis Date: 11/13/17 20:12
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-014
Client Id: LMW-21
Data File: 7M87622.D
Analysis Date: 11/13/17 20:35
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 SEMIVOLATILE REPORT

Sample Number: AD01096-015(5X)
Client Id: LMW-12
Data File: 10M66020.D
Analysis Date: 11/13/17 16:01
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 5
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	1.2	U				

Worksheet #: 444671

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 usea

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-015(5X)(R)
Client Id: LMW-12
Data File: 10M66066.D
Analysis Date: 11/15/17 21:12
Date Rec/Extracted: 11/10/17-11/15/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 5
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	1.2	U				

Worksheet #: 444671

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 usea

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-016
Client Id: LMW-14
Data File: 10M66021.D
Analysis Date: 11/13/17 16:23
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-017
Client Id: LFB-20171108
Data File: 7M87663.D
Analysis Date: 11/15/17 14:55
Date Rec/Extracted: 11/10/17-11/14/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 usea

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

Chain of Custody Forms

7111017 0042

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 Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

Hampton-Clarke WBE/DBE/SBE 800-426-9992
A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 7111017

3) Reporting Requirements (Please Circle)

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

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: AECOM
Address: 100 Red Schoolhouse Rd
Chestnut Ridge
1b) Email/Cell/Fax/Ph: Paul.kareth@aecom.com
1c) Send Invoice to: Same
1d) Send Report to: Same

Project Information

2a) Project: LIBERTY
2b) Project Mgr: Paul Kareth
2c) Project Location (City/State): Brentwood NY
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓
Batch # AB01096

===> Check If Contingent ===>

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)

7) Analysis (specify methods & parameter lists)

<=== Check If Contingent <===

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	1,4 DIOXANE	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
001/002/003	LMW-19	GW	11/8/17	932		✓	✓	✓								TMS/MSD
004	LMW-18			951		✓	✓	✓								
005	LMW-69			935		✓	✓	✓								
006	LMW-2			1145		✓	✓	✓								
007	LMW-3			1430		✓	✓	✓								
008	LMW-4			1445		✓	✓	✓								
009	LMW-5			1503		✓	✓	✓								
010	LMW-6			1510		✓	✓	✓								
011	LMW-10			1540		✓	✓	✓								
012	LMW-16			1525		✓	✓	✓								

10) Relinquished by:	Accepted by:	Date	Time
		11/10/17	1320
		11/10/17	14:10

11) Sampler (print name): Date:

Additional Notes

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

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 2.9 / 2.0 2.6°

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#

7111017 NN43

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

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A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

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Address: 100 Red Schoolhouse Rd Chestnut Ridge NY
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2b) Project Mgr: Paul Kareth
2c) Project Location (City/State): Brentwood NY
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓

Batch # A01096

===> Check If Contingent ===>

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)

7) Analysis (specify methods & parameter lists)

<=== Check If Contingent <===

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	1,4-Dioxane	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
013	LMW-20	GW	11/8/17	1554		✓	✓	✓								
014	LMW-21	↓	↓	1600		✓	✓	✓								
015	LMW-12			1627		✓	✓	✓								
016	LMW-14			1609		✓	✓	✓								
	~~LMW-6~~															
017	LFB-20171108	FB	11/8/17	1605		✓	✓	✓								Field Blank

10) Relinquished by:	Accepted by:	Date	Time
[signature]	[signature]	11/10/17	10:20
	[signature]	11/10/17	14:10

11) Sampler (print name): Date:

Additional Notes

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

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 2.4 °C

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#

CONDITION UPON RECEIPT

Batch Number AD01096 Entered By: Frantz

Date Entered 11/10/2017 2:37:00 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). 2.9,2.0,2.6
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	Yes	Do the contents match the COC? If no, specify
10	NO	Is there enough sample sent for the analyses listed on the COC? If no, specify: Only one liter received for MS and MSD.
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).

Internal Chain of Custody

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AD01096-001	11/10/17 14:10	FRANT	0	M	Received
AD01096-001	11/10/17 14:37	FRANT	0	M	Login
AD01096-001	11/10/17 15:39	R12	1	A	NONE
AD01096-001	11/13/17 08:55	AP	1	A	bn
AD01096-001	11/10/17 15:39	R12	2	A	NONE
AD01096-002	11/10/17 14:10	FRANT	0	M	Received
AD01096-002	11/10/17 14:37	FRANT	0	M	Login
AD01096-002	11/10/17 15:39	R12	1	A	NONE
AD01096-002	11/13/17 08:55	AP	1	A	bn
AD01096-003	11/10/17 14:10	FRANT	0	M	Received
AD01096-003	11/10/17 14:37	FRANT	0	M	Login
AD01096-003	11/10/17 15:39	R12	1	A	NONE
AD01096-003	11/13/17 08:55	AP	1	A	bn
AD01096-004	11/10/17 14:10	FRANT	0	M	Received
AD01096-004	11/10/17 14:37	FRANT	0	M	Login
AD01096-004	11/10/17 15:39	R12	1	A	NONE
AD01096-004	11/10/17 15:39	R12	2	A	NONE
AD01096-004	11/13/17 08:55	AP	2	A	bn
AD01096-005	11/10/17 14:10	FRANT	0	M	Received
AD01096-005	11/10/17 14:37	FRANT	0	M	Login
AD01096-005	11/10/17 15:39	R12	1	A	NONE
AD01096-005	11/10/17 15:39	R12	2	A	NONE
AD01096-005	11/13/17 08:55	AP	2	A	bn
AD01096-006	11/10/17 14:10	FRANT	0	M	Received
AD01096-006	11/10/17 14:37	FRANT	0	M	Login
AD01096-006	11/10/17 15:39	R12	1	A	NONE
AD01096-006	11/10/17 15:39	R12	2	A	NONE
AD01096-006	11/13/17 08:55	AP	2	A	bn
AD01096-007	11/10/17 14:10	FRANT	0	M	Received
AD01096-007	11/10/17 14:37	FRANT	0	M	Login
AD01096-007	11/10/17 15:39	R12	1	A	NONE
AD01096-007	11/13/17 08:55	AP	1	A	bn
AD01096-007	11/10/17 15:39	R12	2	A	NONE
AD01096-008	11/10/17 14:10	FRANT	0	M	Received
AD01096-008	11/10/17 14:37	FRANT	0	M	Login
AD01096-008	11/10/17 15:39	R12	1	A	NONE
AD01096-008	11/13/17 08:55	AP	1	A	bn
AD01096-008	11/10/17 15:39	R12	2	A	NONE
AD01096-009	11/10/17 14:10	FRANT	0	M	Received
AD01096-009	11/10/17 14:37	FRANT	0	M	Login
AD01096-009	11/10/17 15:39	R12	1	A	NONE
AD01096-009	11/10/17 15:39	R12	2	A	NONE
AD01096-009	11/13/17 08:55	AP	2	A	bn
AD01096-010	11/10/17 14:10	FRANT	0	M	Received
AD01096-010	11/10/17 14:37	FRANT	0	M	Login
AD01096-010	11/10/17 15:39	R12	1	A	NONE
AD01096-010	11/10/17 15:39	R12	2	A	NONE
AD01096-010	11/13/17 08:55	AP	2	A	bn
AD01096-011	11/10/17 14:10	FRANT	0	M	Received
AD01096-011	11/10/17 14:37	FRANT	0	M	Login
AD01096-011	11/10/17 15:39	R12	1	A	NONE
AD01096-011	11/13/17 08:55	AP	1	A	bn
AD01096-011	11/10/17 15:39	R12	2	A	NONE
AD01096-012	11/10/17 14:10	FRANT	0	M	Received
AD01096-012	11/10/17 14:37	FRANT	0	M	Login
AD01096-012	11/10/17 15:39	R12	1	A	NONE
AD01096-012	11/13/17 08:55	AP	1	A	bn
AD01096-012	11/10/17 15:39	R12	2	A	NONE
AD01096-013	11/10/17 14:10	FRANT	0	M	Received
AD01096-013	11/10/17 14:37	FRANT	0	M	Login
AD01096-013	11/10/17 15:39	R12	1	A	NONE
AD01096-013	11/13/17 08:55	AP	1	A	bn
AD01096-013	11/10/17 15:39	R12	2	A	NONE
AD01096-014	11/10/17 14:10	FRANT	0	M	Received
AD01096-014	11/10/17 14:37	FRANT	0	M	Login
AD01096-014	11/10/17 15:39	R12	1	A	NONE
AD01096-014	11/13/17 08:55	AP	1	A	bn
AD01096-014	11/10/17 15:39	R12	2	A	NONE
AD01096-015	11/10/17 14:10	FRANT	0	M	Received
AD01096-015	11/10/17 14:37	FRANT	0	M	Login
AD01096-015	11/10/17 15:39	R12	1	A	NONE
AD01096-015	11/15/17 10:34	LV	1	A	bn
AD01096-015	11/10/17 15:39	R12	2	A	NONE
AD01096-015	11/13/17 08:55	AP	2	A	bn
AD01096-016	11/10/17 14:10	FRANT	0	M	Received
AD01096-016	11/10/17 14:37	FRANT	0	M	Login
AD01096-016	11/10/17 15:39	R12	1	A	NONE
AD01096-016	11/10/17 15:39	R12	2	A	NONE
AD01096-016	11/13/17 08:55	AP	2	A	bn
AD01096-017	11/10/17 14:10	FRANT	0	M	Received
AD01096-017	11/10/17 14:37	FRANT	0	M	Login
AD01096-017	11/10/17 15:39	R12	1	A	NONE
AD01096-017	11/10/17 15:39	R12	2	A	NONE
AD01096-017	11/14/17 10:54	LV	2	A	bn/bna

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 Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column1 S5 Recov	Column1 S6 Recov
10M66053.D	WMB63412	A	11/15/17 16:23	1		NA	NA	85	88	NA	112
7M87608.D	WMB63387	A	11/13/17 14:37	1		NA	NA	71	76	NA	93
7M87639.D	WMB63402	A	11/14/17 16:09	1		NA	NA	80	82	NA	96
7M87609.D	AD01096-001	A	11/13/17 15:31	1		NA	NA	75	80	NA	104
7M87610.D	AD01096-002(MS:AD01	A	11/13/17 15:54	1		NA	NA	89	61	NA	111
7M87611.D	AD01096-003(MSD:AD0	A	11/13/17 16:18	1		NA	NA	94	74	NA	117
7M87612.D	AD01096-004	A	11/13/17 16:41	1		NA	NA	85	84	NA	114
7M87613.D	AD01096-005	A	11/13/17 17:04	1		NA	NA	80	87	NA	103
7M87614.D	AD01096-006	A	11/13/17 17:28	1		NA	NA	90	92	NA	115
7M87615.D	AD01096-007	A	11/13/17 17:51	1		NA	NA	90	95	NA	116
7M87616.D	AD01096-008	A	11/13/17 18:15	1		NA	NA	78	84	NA	100
7M87617.D	AD01096-009	A	11/13/17 18:38	1		NA	NA	88	86	NA	110
7M87618.D	AD01096-010	A	11/13/17 19:01	1		NA	NA	88	91	NA	116
7M87619.D	AD01096-011	A	11/13/17 19:25	1		NA	NA	81	81	NA	100
7M87620.D	AD01096-012	A	11/13/17 19:48	1		NA	NA	92	95	NA	119
7M87621.D	AD01096-013	A	11/13/17 20:12	1		NA	NA	92	92	NA	118
7M87622.D	AD01096-014	A	11/13/17 20:35	1		NA	NA	85	92	NA	122
10M66020.D	AD01096-015(5X)	A	11/13/17 16:01	5	~~SD~~	NA	NA	37*	45*	NA	48*
10M66066.D	AD01096-015(5X)(R)	A	11/15/17 21:12	5	~~SD~~	NA	NA	36*	45*	NA	54*
10M66021.D	AD01096-016	A	11/13/17 16:23	1		NA	NA	66	84	NA	82
7M87663.D	AD01096-017	A	11/15/17 14:55	1		NA	NA	99	96	NA	120
5M101515.D	WMB63387(MS)	A	11/14/17 12:10	1		NA	NA	108	97	NA	113
5M101521.D	WMB63402(MS)	A	11/14/17 16:03	1		NA	NA	107	104	NA	111
7M87665.D	WMB63412(MS)	A	11/15/17 15:42	1		NA	NA	102	75	NA	135

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8270D

Aqueous Laboratory Limits

Compound	Spike 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: WMB63387

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M101515.D	WMB63387(MS)	11/14/2017 12:10:00 P
Non Spike(If applicable):		
Inst Blank(If applicable):		

Method: 8270D | Matrix: Aqueous | QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	45.3914	0	100	45	20	160
Pyridine	1	60.8003	0	100	61	5	150
N-Nitrosodimethylamine	1	53.2539	0	100	53	50	150
Benzaldehyde	1	175.6163	0	100	176*	20	150
Aniline	1	104.6294	0	100	105	20	150
Pentachloroethane	1	2.5545	0	100	2.6*	50	130
bis(2-Chloroethyl)ether	1	91.2129	0	100	91	50	130
N-Decane	1	85.3361	0	100	85	40	130
1,3-Dichlorobenzene	1	87.9789	0	100	88	50	130
1,4-Dichlorobenzene	1	88.856	0	100	89	50	130
1,2-Dichlorobenzene	1	88.9518	0	100	89	50	130
Benzyl alcohol	1	75.0777	0	100	75	70	130
bis(2-chloroisopropyl)ether	1	78.6417	0	100	79	40	130
Acetophenone	1	88.5284	0	100	89	50	130
Hexachloroethane	1	88.009	0	100	88	50	130
N-Nitroso-di-n-propylamine	1	88.1576	0	100	88	50	130
Nitrobenzene	1	97.4946	0	100	97	70	130
Isophorone	1	91.4614	0	100	91	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	94.1323	0	100	94	70	130
1,2,4-Trichlorobenzene	1	93.4286	0	100	93	50	130
Naphthalene	1	95.215	0	100	95	70	130
4-Chloroaniline	1	142.9322	0	100	143	50	150
Hexachlorobutadiene	1	89.2411	0	100	89	70	130
Caprolactam	1	25.1402	0	100	25	20	130
2-Methylnaphthalene	1	95.8005	0	100	96	70	130
1-Methylnaphthalene	1	91.9183	0	100	92	70	130
1,1'-Biphenyl	1	94.6228	0	100	95	70	130
1,2,4,5-Tetrachlorobenzene	1	85.6862	0	100	86	70	130
Hexachlorocyclopentadiene	1	77.1238	0	100	77	20	130
2-Chloronaphthalene	1	94.2483	0	100	94	70	130
1,4-Dimethylnaphthalene	1	93.0564	0	100	93	70	130
Diphenyl Ether	1	92.0819	0	100	92	70	130
2-Nitroaniline	1	104.1251	0	100	104	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	101.6799	0	100	102	70	130
Dimethylphthalate	1	63.2014	0	100	63*	70	130
2,6-Dinitrotoluene	1	97.0512	0	100	97	70	130
Acenaphthene	1	96.1165	0	100	96	70	130
3-Nitroaniline	1	123.3717	0	100	123	50	150
Dibenzofuran	1	104.8271	0	100	105	70	130
2,4-Dinitrotoluene	1	99.5177	0	100	100	40	130
Fluorene	1	98.7482	0	100	99	70	130
4-Chlorophenyl-phenylether	1	95.1112	0	100	95	70	130
Diethylphthalate	1	87.6325	0	100	88	50	130
4-Nitroaniline	1	112.3265	0	100	112	50	150
Atrazine	1	114.7988	0	100	115	50	130
n-Nitrosodiphenylamine	1	78.4989	0	100	78	50	130
1,2-Diphenylhydrazine	1	96.3925	0	100	96	70	130
4-Bromophenyl-phenylether	1	95.216	0	100	95	70	130
Hexachlorobenzene	1	96.2474	0	100	96	70	130
N-Octadecane	1	98.3073	0	100	98	70	130
Phenanthrene	1	95.2033	0	100	95	70	130
Anthracene	1	95.7685	0	100	96	70	130
Carbazole	1	102.8255	0	100	103	70	130
Di-n-butylphthalate	1	104.659	0	100	105	70	130
Fluoranthene	1	100.7849	0	100	101	70	130
Pyrene	1	97.4358	0	100	97	70	130
Benzidine	1	54.3718	0	100	54	1	130
Butylbenzylphthalate	1	96.6385	0	100	97	50	130
3,3'-Dichlorobenzidine	1	130.7583	0	100	131	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	101.1628	0	100	101	70	130
Chrysene	1	97.3255	0	100	97	50	130
bis(2-Ethylhexyl)phthalate	1	101.5796	0	100	102	70	130
Di-n-octylphthalate	1	105.0388	0	100	105	70	130
Benzo[b]fluoranthene	1	100.7501	0	100	101	70	130
Benzo[k]fluoranthene	1	102.8208	0	100	103	70	130
Benzo[a]pyrene	1	97.6445	0	100	98	70	130
Indeno[1,2,3-cd]pyrene	1	111.6546	0	100	112	70	130
Dibenzo[a,h]anthracene	1	109.9078	0	100	110	70	130
Benzo[g,h,i]perylene	1	107.6887	0	100	108	70	130

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

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63402

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M101521.D	WMB63402(MS)	11/14/2017 4:03:00 PM
Non Spike(If applicable):		
Inst Blank(If applicable):		

Method: 8270D | Matrix: Aqueous | QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	49.9529	0	100	50	20	160
Pyridine	1	19.0685	0	100	19	5	150
N-Nitrosodimethylamine	1	58.6835	0	100	59	50	150
Benzaldehyde	1	153.3343	0	100	153*	20	150
Aniline	1	58.7328	0	100	59	20	150
Pentachloroethane	1	73.3319	0	100	73	50	130
bis(2-Chloroethyl)ether	1	68.7274	0	100	69	50	130
N-Decane	1	72.9829	0	100	73	40	130
1,3-Dichlorobenzene	1	67.5967	0	100	68	50	130
1,4-Dichlorobenzene	1	72.62	0	100	73	50	130
1,2-Dichlorobenzene	1	71.8741	0	100	72	50	130
Benzyl alcohol	1	79.4509	0	100	79	70	130
bis(2-chloroisopropyl)ether	1	66.8501	0	100	67	40	130
Acetophenone	1	80.5303	0	100	81	50	130
Hexachloroethane	1	70.3293	0	100	70	50	130
N-Nitroso-di-n-propylamine	1	73.5566	0	100	74	50	130
Nitrobenzene	1	84.4794	0	100	84	70	130
Isophorone	1	80.2206	0	100	80	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	80.8099	0	100	81	70	130
1,2,4-Trichlorobenzene	1	77.4962	0	100	77	50	130
Naphthalene	1	79.3445	0	100	79	70	130
4-Chloroaniline	1	104.4723	0	100	104	50	150
Hexachlorobutadiene	1	74.5177	0	100	75	70	130
Caprolactam	1	44.4522	0	100	44	20	130
2-Methylnaphthalene	1	85.4268	0	100	85	70	130
1-Methylnaphthalene	1	83.5029	0	100	84	70	130
1,1'-Biphenyl	1	89.2628	0	100	89	70	130
1,2,4,5-Tetrachlorobenzene	1	79.3569	0	100	79	70	130
Hexachlorocyclopentadiene	1	71.1393	0	100	71	20	130
2-Chloronaphthalene	1	83.3392	0	100	83	70	130
1,4-Dimethylnaphthalene	1	86.5972	0	100	87	70	130
Diphenyl Ether	1	85.1721	0	100	85	70	130
2-Nitroaniline	1	94.5187	0	100	95	50	150
Coumarin	1	97.8607	0	100	98	70	130
Acenaphthylene	1	87.3458	0	100	87	70	130
Dimethylphthalate	1	80.5363	0	100	81	70	130
2,6-Dinitrotoluene	1	84.2459	0	100	84	70	130
Acenaphthene	1	85.7503	0	100	86	70	130
3-Nitroaniline	1	107.5075	0	100	108	50	150
Dibenzofuran	1	93.7978	0	100	94	70	130
2,4-Dinitrotoluene	1	86.2501	0	100	86	40	130
Fluorene	1	86.0013	0	100	86	70	130
4-Chlorophenyl-phenylether	1	83.9435	0	100	84	70	130
Diethylphthalate	1	87.7048	0	100	88	50	130
4-Nitroaniline	1	97.1829	0	100	97	50	150
Atrazine	1	100.5962	0	100	101	50	130
n-Nitrosodiphenylamine	1	71.2806	0	100	71	50	130
1,2-Diphenylhydrazine	1	92.7447	0	100	93	70	130
4-Bromophenyl-phenylether	1	85.9169	0	100	86	70	130
Hexachlorobenzene	1	85.082	0	100	85	70	130
N-Octadecane	1	90.7742	0	100	91	70	130
Phenanthrene	1	83.8456	0	100	84	70	130
Anthracene	1	83.0623	0	100	83	70	130
Carbazole	1	92.2082	0	100	92	70	130
Di-n-butylphthalate	1	91.7287	0	100	92	70	130
Fluoranthene	1	87.3598	0	100	87	70	130
Pyrene	1	82.1346	0	100	82	70	130
Benzidine	1	12.5592	0	100	13	1	130
Butylbenzylphthalate	1	84.5783	0	100	85	50	130
3,3'-Dichlorobenzidine	1	86.0023	0	100	86	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63402

Benzo[a]anthracene	1	86.4387	0	100	86	70	130
Chrysene	1	85.9827	0	100	86	50	130
bis(2-Ethylhexyl)phthalate	1	88.7645	0	100	89	70	130
Di-n-octylphthalate	1	89.0383	0	100	89	70	130
Benzo[b]fluoranthene	1	85.0336	0	100	85	70	130
Benzo[k]fluoranthene	1	84.0297	0	100	84	70	130
Benzo[a]pyrene	1	81.4479	0	100	81	70	130
Indeno[1,2,3-cd]pyrene	1	96.7298	0	100	97	70	130
Dibenzo[a,h]anthracene	1	93.8976	0	100	94	70	130
Benzo[g,h,i]perylene	1	93.2974	0	100	93	70	130

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

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63412

Data File	Sample ID:	Analysis Date
Spike or Dup: 7M87665.D	WMB63412(MS)	11/15/2017 3:42:00 PM
Non Spike(If applicable):		
Inst Blank(If applicable):		
Method: 8270D	Matrix: Aqueous	QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	33.946	0	100	34	20	160
Pyridine	1	51.0353	0	100	51	5	150
N-Nitrosodimethylamine	1	42.5783	0	100	43*	50	150
Benzaldehyde	1	137.5595	0	100	138	20	150
Aniline	1	93.0788	0	100	93	20	150
Pentachloroethane	1	11.4651	0	100	11*	50	130
bis(2-Chloroethyl)ether	1	73.0584	0	100	73	50	130
N-Decane	1	70.1459	0	100	70	40	130
1,3-Dichlorobenzene	1	56.723	0	100	57	50	130
1,4-Dichlorobenzene	1	56.6261	0	100	57	50	130
1,2-Dichlorobenzene	1	57.6614	0	100	58	50	130
Benzyl alcohol	1	65.3234	0	100	65*	70	130
bis(2-chloroisopropyl)ether	1	59.6235	0	100	60	40	130
Acetophenone	1	79.313	0	100	79	50	130
Hexachloroethane	1	55.7262	0	100	56	50	130
N-Nitroso-di-n-propylamine	1	81.5422	0	100	82	50	130
Nitrobenzene	1	76.8755	0	100	77	70	130
Isophorone	1	77.7909	0	100	78	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	79.0411	0	100	79	70	130
1,2,4-Trichlorobenzene	1	62.7875	0	100	63	50	130
Naphthalene	1	68.3769	0	100	68*	70	130
4-Chloroaniline	1	130.4469	0	100	130	50	150
Hexachlorobutadiene	1	59.4151	0	100	59*	70	130
Caprolactam	1	21.9953	0	100	22	20	130
2-Methylnaphthalene	1	83.8934	0	100	84	70	130
1-Methylnaphthalene	1	81.5339	0	100	82	70	130
1,1'-Biphenyl	1	84.5998	0	100	85	70	130
1,2,4,5-Tetrachlorobenzene	1	79.2693	0	100	79	70	130
Hexachlorocyclopentadiene	1	53.6572	0	100	54	20	130
2-Chloronaphthalene	1	74.2267	0	100	74	70	130
1,4-Dimethylnaphthalene	1	84.5753	0	100	85	70	130
Diphenyl Ether	1	80.7512	0	100	81	70	130
2-Nitroaniline	1	94.5229	0	100	95	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	84.8652	0	100	85	70	130
Dimethylphthalate	1	47.7943	0	100	48*	70	130
2,6-Dinitrotoluene	1	88.6559	0	100	89	70	130
Acenaphthene	1	81.0976	0	100	81	70	130
3-Nitroaniline	1	106.9424	0	100	107	50	150
Dibenzofuran	1	93.2757	0	100	93	70	130
2,4-Dinitrotoluene	1	83.9362	0	100	84	40	130
Fluorene	1	86.2784	0	100	86	70	130
4-Chlorophenyl-phenylether	1	86.1633	0	100	86	70	130
Diethylphthalate	1	63.7373	0	100	64	50	130
4-Nitroaniline	1	89.2172	0	100	89	50	150
Atrazine	1	101.1125	0	100	101	50	130
n-Nitrosodiphenylamine	1	74.4213	0	100	74	50	130
1,2-Diphenylhydrazine	1	86.3793	0	100	86	70	130
4-Bromophenyl-phenylether	1	90.4347	0	100	90	70	130
Hexachlorobenzene	1	88.7527	0	100	89	70	130
N-Octadecane	1	90.4632	0	100	90	70	130
Phenanthrene	1	84.9428	0	100	85	70	130
Anthracene	1	86.3803	0	100	86	70	130
Carbazole	1	89.1311	0	100	89	70	130
Di-n-butylphthalate	1	93.9531	0	100	94	70	130
Fluoranthene	1	87.9	0	100	88	70	130
Pyrene	1	97.8351	0	100	98	70	130
Benzidine	1	69.7955	0	100	70	1	130
Butylbenzylphthalate	1	95.5714	0	100	96	50	130
3,3'-Dichlorobenzidine	1	118.0559	0	100	118	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63412

Benzo[a]anthracene	1	90.9995	0	100	91	70	130
Chrysene	1	88.5502	0	100	89	50	130
bis(2-Ethylhexyl)phthalate	1	106.1241	0	100	106	70	130
Di-n-octylphthalate	1	105.9058	0	100	106	70	130
Benzo[b]fluoranthene	1	100.6541	0	100	101	70	130
Benzo[k]fluoranthene	1	98.3743	0	100	98	70	130
Benzo[a]pyrene	1	87.3509	0	100	87	70	130
Indeno[1,2,3-cd]pyrene	1	95.6063	0	100	96	70	130
Dibenzo[a,h]anthracene	1	96.2243	0	100	96	70	130
Benzo[g,h,i]perylene	1	89.318	0	100	89	70	130

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

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63387

Data File	Sample ID:	Analysis Date
Spike or Dup: 7M87610.D	AD01096-002(MS:AD01096-001	11/13/2017 3:54:00 PM
Non Spike(If applicable): 7M87609.D	AD01096-001	11/13/2017 3:31:00 PM
Inst Blank(If applicable):		

Method: 8270D | Matrix: Aqueous | QC Type: MS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	30.7253	0	100	31	20	160
Pyridine	1	43.7671	0	100	44	5	150
N-Nitrosodimethylamine	1	37.8743	0	100	38*	50	150
Benzaldehyde	1	127.8019	0	100	128	20	150
Aniline	1	86.9301	0	100	87	20	150
Pentachloroethane	1	3.9071	0	100	3.9*	50	130
bis(2-Chloroethyl)ether	1	76.8829	0	100	77	50	130
N-Decane	1	29.3014	0	100	29*	40	130
1,3-Dichlorobenzene	1	78.5053	0	100	79	50	130
1,4-Dichlorobenzene	1	82.5539	0	100	83	50	130
1,2-Dichlorobenzene	1	83.0155	0	100	83	50	130
Benzyl alcohol	1	54.627	0	100	55*	70	130
bis(2-chloroisopropyl)ether	1	72.0159	0	100	72	40	130
Acetophenone	1	77.8852	0	100	78	50	130
Hexachloroethane	1	81.9066	0	100	82	50	130
N-Nitroso-di-n-propylamine	1	85.9863	0	100	86	50	130
Nitrobenzene	1	88.8982	0	100	89	70	130
Isophorone	1	85.1242	0	100	85	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	87.2705	0	100	87	70	130
1,2,4-Trichlorobenzene	1	88.5242	0	100	89	50	130
Naphthalene	1	82.3016	0	100	82	70	130
4-Chloroaniline	1	135.1723	0	100	135	50	150
Hexachlorobutadiene	1	86.8616	0	100	87	70	130
Caprolactam	1	13.4887	0	100	13*	20	130
2-Methylnaphthalene	1	76.8317	0	100	77	70	130
1-Methylnaphthalene	1	74.5262	0	100	75	70	130
1,1'-Biphenyl	1	83.6898	0	100	84	70	130
1,2,4,5-Tetrachlorobenzene	1	80.2698	0	100	80	70	130
Hexachlorocyclopentadiene	1	81.9069	0	100	82	20	130
2-Chloronaphthalene	1	90.5571	0	100	91	70	130
1,4-Dimethylnaphthalene	1	85.2588	0	100	85	70	130
Diphenyl Ether	1	83.1229	0	100	83	70	130
2-Nitroaniline	1	99.446	0	100	99	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	96.0041	0	100	96	70	130
Dimethylphthalate	1	67.4076	0	100	67*	70	130
2,6-Dinitrotoluene	1	96.0017	0	100	96	70	130
Acenaphthene	1	92.0192	0	100	92	70	130
3-Nitroaniline	1	109.338	0	100	109	50	150
Dibenzofuran	1	97.8295	0	100	98	70	130
2,4-Dinitrotoluene	1	88.3568	0	100	88	40	130
Fluorene	1	92.1284	0	100	92	70	130
4-Chlorophenyl-phenylether	1	91.8257	0	100	92	70	130
Diethylphthalate	1	88.1787	0	100	88	50	130
4-Nitroaniline	1	90.5328	0	100	91	50	150
Atrazine	1	99.7345	0	100	100	50	130
n-Nitrosodiphenylamine	1	78.0479	0	100	78	50	130
1,2-Diphenylhydrazine	1	102.5771	0	100	103	70	130
4-Bromophenyl-phenylether	1	96.2201	0	100	96	70	130
Hexachlorobenzene	1	95.3606	0	100	95	70	130
N-Octadecane	1	92.3057	0	100	92	70	130
Phenanthrene	1	91.0665	0	100	91	70	130
Anthracene	1	91.8654	0	100	92	70	130
Carbazole	1	92.2378	0	100	92	70	130
Di-n-butylphthalate	1	102.3613	0	100	102	70	130
Fluoranthene	1	93.7854	0	100	94	70	130
Pyrene	1	99.7665	0	100	100	70	130
Benzidine	1	49.198	0	100	49	1	130
Butylbenzylphthalate	1	96.4257	0	100	96	50	130
3,3'-Dichlorobenzidine	1	117.3194	0	100	117	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	96.6805	0	100	97	70	130
Chrysene	1	93.1992	0	100	93	50	130
bis(2-Ethylhexyl)phthalate	1	107.2992	0	100	107	70	130
Di-n-octylphthalate	1	105.0723	0	100	105	70	130
Benzo[b]fluoranthene	1	102.6774	0	100	103	70	130
Benzo[k]fluoranthene	1	105.1172	0	100	105	70	130
Benzo[a]pyrene	1	94.7541	0	100	95	70	130
Indeno[1,2,3-cd]pyrene	1	102.4435	0	100	102	70	130
Dibenzo[a,h]anthracene	1	101.3393	0	100	101	70	130
Benzo[g,h,i]perylene	1	94.5416	0	100	95	70	130

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

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63387

	Data File	Sample ID:	Analysis Date
Spike or Dup:	7M87611.D	AD01096-003(MSD:AD01096-0	11/13/2017 4:18:00 PM
Non Spike(If applicable):	7M87609.D	AD01096-001	11/13/2017 3:31:00 PM
Inst Blank(If applicable):			

Method: 8270D | Matrix: Aqueous | QC Type: MSD

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	30.2336	0	100	30	20	160
Pyridine	1	45.5314	0	100	46	5	150
N-Nitrosodimethylamine	1	38.1791	0	100	38*	50	150
Benzaldehyde	1	132.1508	0	100	132	20	150
Aniline	1	93.0443	0	100	93	20	150
Pentachloroethane	1	4.2841	0	100	4.3*	50	130
bis(2-Chloroethyl)ether	1	74.4438	0	100	74	50	130
N-Decane	1	47.3259	0	100	47	40	130
1,3-Dichlorobenzene	1	40.3851	0	100	40*	50	130
1,4-Dichlorobenzene	1	43.4694	0	100	43*	50	130
1,2-Dichlorobenzene	1	48.492	0	100	48*	50	130
Benzyl alcohol	1	57.3032	0	100	57*	70	130
bis(2-chloroisopropyl)ether	1	62.446	0	100	62	40	130
Acetophenone	1	79.0657	0	100	79	50	130
Hexachloroethane	1	42.5134	0	100	43*	50	130
N-Nitroso-di-n-propylamine	1	83.8999	0	100	84	50	130
Nitrobenzene	1	85.7705	0	100	86	70	130
Isophorone	1	85.8543	0	100	86	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	88.2295	0	100	88	70	130
1,2,4-Trichlorobenzene	1	77.0946	0	100	77	50	130
Naphthalene	1	73.604	0	100	74	70	130
4-Chloroaniline	1	145.4196	0	100	145	50	150
Hexachlorobutadiene	1	69.5742	0	100	70	70	130
Caprolactam	1	14.6959	0	100	15*	20	130
2-Methylnaphthalene	1	89.2712	0	100	89	70	130
1-Methylnaphthalene	1	83.4009	0	100	83	70	130
1,1'-Biphenyl	1	87.2643	0	100	87	70	130
1,2,4,5-Tetrachlorobenzene	1	86.2859	0	100	86	70	130
Hexachlorocyclopentadiene	1	78.1912	0	100	78	20	130
2-Chloronaphthalene	1	91.0001	0	100	91	70	130
1,4-Dimethylnaphthalene	1	89.8076	0	100	90	70	130
Diphenyl Ether	1	87.7665	0	100	88	70	130
2-Nitroaniline	1	103.151	0	100	103	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	98.8179	0	100	99	70	130
Dimethylphthalate	1	37.4114	0	100	37*	70	130
2,6-Dinitrotoluene	1	104.1447	0	100	104	70	130
Acenaphthene	1	94.5126	0	100	95	70	130
3-Nitroaniline	1	115.8602	0	100	116	50	150
Dibenzofuran	1	103.2628	0	100	103	70	130
2,4-Dinitrotoluene	1	90.3226	0	100	90	40	130
Fluorene	1	94.3493	0	100	94	70	130
4-Chlorophenyl-phenylether	1	95.396	0	100	95	70	130
Diethylphthalate	1	82.9682	0	100	83	50	130
4-Nitroaniline	1	95.5584	0	100	96	50	150
Atrazine	1	102.7898	0	100	103	50	130
n-Nitrosodiphenylamine	1	82.2705	0	100	82	50	130
1,2-Diphenylhydrazine	1	95.9348	0	100	96	70	130
4-Bromophenyl-phenylether	1	100.3479	0	100	100	70	130
Hexachlorobenzene	1	98.2547	0	100	98	70	130
N-Octadecane	1	95.9988	0	100	96	70	130
Phenanthrene	1	93.8729	0	100	94	70	130
Anthracene	1	94.0879	0	100	94	70	130
Carbazole	1	95.0235	0	100	95	70	130
Di-n-butylphthalate	1	105.0725	0	100	105	70	130
Fluoranthene	1	96.6888	0	100	97	70	130
Pyrene	1	104.555	0	100	105	70	130
Benzidine	1	59.6545	0	100	60	1	130
Butylbenzylphthalate	1	102.7247	0	100	103	50	130
3,3'-Dichlorobenzidine	1	129.5935	0	100	130	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	101.4149	0	100	101	70	130
Chrysene	1	98.9527	0	100	99	50	130
bis(2-Ethylhexyl)phthalate	1	112.4447	0	100	112	70	130
Di-n-octylphthalate	1	109.2401	0	100	109	70	130
Benzo[b]fluoranthene	1	111.0198	0	100	111	70	130
Benzo[k]fluoranthene	1	105.0532	0	100	105	70	130
Benzo[a]pyrene	1	100.0347	0	100	100	70	130
Indeno[1,2,3-cd]pyrene	1	109.5249	0	100	110	70	130
Dibenzo[a,h]anthracene	1	107.1627	0	100	107	70	130
Benzo[g,h,i]perylene	1	102.5937	0	100	103	70	130

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

Form3
RPD Data Laboratory Limits
QC Batch: WMB63387

	Data File	Sample ID:	Analysis Date
Spike or Dup:	7M87611.D	AD01096-003(MSD:AD01096-0	11/13/2017 4:18:00 PM
Duplicate(If applicable):	7M87610.D	AD01096-002(MS:AD01096-001	11/13/2017 3:54:00 PM
Inst Blank(If applicable):			

Method: 8270D Matrix: Aqueous QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
1,4-Dioxane	1	30.2336	30.7253	1.6	20
Pyridine	1	45.5314	43.7671	4	40
N-Nitrosodimethylamine	1	38.1791	37.8743	0.8	20
Benzaldehyde	1	132.1508	127.8019	3.3	20
Aniline	1	93.0443	86.9301	6.8	20
Pentachloroethane	1	4.2841	3.9071	9.2	20
bis(2-Chloroethyl)ether	1	74.4438	76.8829	3.2	20
N-Decane	1	47.3259	29.3014	47*	20
1,3-Dichlorobenzene	1	40.3851	78.5053	64*	20
1,4-Dichlorobenzene	1	43.4694	82.5539	62*	40
1,2-Dichlorobenzene	1	48.492	83.0155	53*	20
Benzyl alcohol	1	57.3032	54.627	4.8	20
bis(2-chloroisopropyl)ether	1	62.446	72.0159	14	20
Acetophenone	1	79.0657	77.8852	1.5	20
Hexachloroethane	1	42.5134	81.9066	63*	40
N-Nitroso-di-n-propylamine	1	83.8999	85.9863	2.5	40
Nitrobenzene	1	85.7705	88.8982	3.6	40
Isophorone	1	85.8543	85.1242	0.85	20
Benzoic Acid	1	0	0	NA	20
bis(2-Chloroethoxy)methane	1	88.2295	87.2705	1.1	20
1,2,4-Trichlorobenzene	1	77.0946	88.5242	14	40
Naphthalene	1	73.604	82.3016	11	40
4-Chloroaniline	1	145.4196	135.1723	7.3	20
Hexachlorobutadiene	1	69.5742	86.8616	22	40
Caprolactam	1	14.6959	13.4887	8.6	20
2-Methylnaphthalene	1	89.2712	76.8317	15	20
1-Methylnaphthalene	1	83.4009	74.5262	11	20
1,1'-Biphenyl	1	87.2643	83.6898	4.2	20
1,2,4,5-Tetrachlorobenzene	1	86.2859	80.2698	7.2	20
Hexachlorocyclopentadiene	1	78.1912	81.9069	4.6	20
2-Chloronaphthalene	1	91.0001	90.5571	0.49	20
1,4-Dimethylnaphthalene	1	89.8076	85.2588	5.2	20
Diphenyl Ether	1	87.7665	83.1229	5.4	20
2-Nitroaniline	1	103.151	99.446	3.7	20
Coumarin	1	0	0	NA	20
Acenaphthylene	1	98.8179	96.0041	2.9	20
Dimethylphthalate	1	37.4114	67.4076	57*	20
2,6-Dinitrotoluene	1	104.1447	96.0017	8.1	20
Acenaphthene	1	94.5126	92.0192	2.7	40
3-Nitroaniline	1	115.8602	109.338	5.8	20
Dibenzofuran	1	103.2628	97.8295	5.4	20
2,4-Dinitrotoluene	1	90.3226	88.3568	2.2	40
Fluorene	1	94.3493	92.1284	2.4	40
4-Chlorophenyl-phenylether	1	95.396	91.8257	3.8	20
Diethylphthalate	1	82.9682	88.1787	6.1	20
4-Nitroaniline	1	95.5584	90.5328	5.4	20
Atrazine	1	102.7898	99.7345	3	20
n-Nitrosodiphenylamine	1	82.2705	78.0479	5.3	20
1,2-Diphenylhydrazine	1	95.9348	102.5771	6.7	20
4-Bromophenyl-phenylether	1	100.3479	96.2201	4.2	20
Hexachlorobenzene	1	98.2547	95.3606	3	40
N-Octadecane	1	95.9988	92.3057	3.9	20
Phenanthrene	1	93.8729	91.0665	3	20
Anthracene	1	94.0879	91.8654	2.4	20
Carbazole	1	95.0235	92.2378	3	20
Di-n-butylphthalate	1	105.0725	102.3613	2.6	20
Fluoranthene	1	96.6888	93.7854	3	20
Pyrene	1	104.555	99.7665	4.7	40
Benzidine	1	59.6545	49.198	19	20
Butylbenzylphthalate	1	102.7247	96.4257	6.3	40
3,3'-Dichlorobenzidine	1	129.5935	117.3194	9.9	20
Benzo[a]anthracene	1	101.4149	96.6805	4.8	20
Chrysene	1	98.9527	93.1992	6	20

Form3
RPD Data Laboratory Limits
QC Batch: WMB63387

bis(2-Ethylhexyl)phthalate	1	112.4447	107.2992	4.7	20
Di-n-octylphthalate	1	109.2401	105.0723	3.9	20
Benzo[b]fluoranthene	1	111.0198	102.6774	7.8	20
Benzo[k]fluoranthene	1	105.0532	105.1172	0.06	20
Benzo[a]pyrene	1	100.0347	94.7541	5.4	20
Indeno[1,2,3-cd]pyrene	1	109.5249	102.4435	6.7	20
Dibenzo[a,h]anthracene	1	107.1627	101.3393	5.6	20
Benzo[g,h,i]perylene	1	102.5937	94.5416	8.2	20

* - Indicates outside of limits

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

FORM 4
Blank Summary

Blank Number: WMB63387
Blank Data File: 7M87608.D
Matrix: Aqueous

Blank Analysis Date: 11/13/17 14:37
Blank Extraction Date: 11/13/17
(If Applicable)
Method: EPA 8270D

Sample Number	Data File	Analysis Date
AD01096-001	7M87609.D	11/13/17 15:31
AD01096-002(MS:	7M87610.D	11/13/17 15:54
AD01096-003(MSD	7M87611.D	11/13/17 16:18
AD01096-004	7M87612.D	11/13/17 16:41
AD01096-005	7M87613.D	11/13/17 17:04
AD01096-006	7M87614.D	11/13/17 17:28
AD01096-007	7M87615.D	11/13/17 17:51
AD01096-008	7M87616.D	11/13/17 18:15
AD01096-009	7M87617.D	11/13/17 18:38
AD01096-010	7M87618.D	11/13/17 19:01
AD01096-011	7M87619.D	11/13/17 19:25
AD01096-012	7M87620.D	11/13/17 19:48
AD01096-013	7M87621.D	11/13/17 20:12
AD01096-014	7M87622.D	11/13/17 20:35
AD01096-015(5X)	10M66020.D	11/13/17 16:01
AD01096-016	10M66021.D	11/13/17 16:23
WMB63387(MS)	5M101515.D	11/14/17 12:10

FORM 4
Blank Summary

Blank Number: WMB63402
Blank Data File: 7M87639.D
Matrix: Aqueous

Blank Analysis Date: 11/14/17 16:09
Blank Extraction Date: 11/14/17
(If Applicable)
Method: EPA 8270D

Sample Number	Data File	Analysis Date
AD01096-017	7M87663.D	11/15/17 14:55
WMB63402(MS)	5M101521.D	11/14/17 16:03

FORM 4
Blank Summary

Blank Number: WMB63412
Blank Data File: 10M66053.D
Matrix: Aqueous

Blank Analysis Date: 11/15/17 16:23
Blank Extraction Date: 11/15/17
(If Applicable)
Method: EPA 8270D

Sample Number	Data File	Analysis Date
AD01096-015(5X)(	10M66066.D	11/15/17 21:12
WMB63412(MS)	7M87665.D	11/15/17 15:42

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M65424.D
Analysis Date: 10/11/17 11:02
Method: EPA 8270D

Tune Scan/Time Range: Scan 1462

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	34.6	42912	PASS
68	69	0.00	2	1.4	631	PASS
69	198	0.00	100	35.2	43728	PASS
70	69	0.00	2	0.9	411	PASS
127	198	40	60	48.5	60160	PASS
197	198	0.00	1	0.6	725	PASS
198	198	100	100	100.0	124112	PASS
199	198	5	9	6.8	8409	PASS
275	198	10	30	25.0	31000	PASS
365	198	1	100	2.7	3295	PASS
441	443	0.01	100	66.6	10632	PASS
442	198	40	100	63.5	78752	PASS
443	442	17	23	20.3	15957	PASS

Data File	Sample Number	Analysis Date:
10M65425.D	CAL BNA@10PPM	10/11/17 12:08
10M65426.D	CAL BNA@2PPM	10/11/17 12:48
10M65427.D	CAL BNA@196PP	10/11/17 13:10
10M65428.D	CAL BNA@160PP	10/11/17 13:33
10M65429.D	CAL BNA@120PP	10/11/17 13:55
10M65430.D	CAL BNA@80PPM	10/11/17 14:17
10M65431.D	CAL BNA@50PPM	10/11/17 14:39
10M65432.D	CAL BNA@20PPM	10/11/17 15:01
10M65433.D	CAL BNA@.5PPM	10/11/17 15:24
10M65434.D	CAL BNA@10PPM	10/11/17 15:51
10M65435.D	CAL BNA@50PPM	10/11/17 16:13
10M65436.D	ICV BNA@50PPM	10/11/17 16:35

Form 5

Tune Name: CAL DFTPP **Data File:** 7M87268.D
Instrument: GCMS 7 **Analysis Date:** 10/19/17 09:03
Method: EPA 8270D

Tune Scan/Time Range: Average of 10.003 to 10.009 min

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	44.7	41608	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.0	45560	PASS
70	69	0.00	2	0.6	275	PASS
127	198	40	60	58.3	54188	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	93004	PASS
199	198	5	9	6.8	6361	PASS
275	198	10	30	21.3	19815	PASS
365	198	1	100	2.4	2198	PASS
441	443	0.01	100	73.9	6922	PASS
442	198	40	100	50.0	46472	PASS
443	442	17	23	20.2	9368	PASS

Data File	Sample Number	Analysis Date:
7M87269.D	CAL BNA@10PPM	10/19/17 09:26
7M87270.D	CAL BNA@2PPM	10/19/17 10:27
7M87271.D	CAL BNA@10PPM	10/19/17 10:51
7M87272.D	CAL BNA@196PP	10/19/17 11:15
7M87273.D	CAL BNA@160PP	10/19/17 11:38
7M87274.D	CAL BNA@120PP	10/19/17 12:02
7M87275.D	CAL BNA@80PPM	10/19/17 12:25
7M87276.D	CAL BNA@20PPM	10/19/17 12:48
7M87277.D	CAL BNA@.5PPM	10/19/17 13:11
7M87278.D	CAL BNA@50PPM	10/19/17 13:35
7M87279.D	ICV BNA@50PPM	10/19/17 13:58

Form 5

Tune Name: CAL DFTPP **Data File:** 5M101319.D
Instrument: GCMS 5 **Analysis Date:** 10/20/17 08:27
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.907 to 9.907 min

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	37.7	46456	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.3	48400	PASS
70	69	0.00	2	0.6	282	PASS
127	198	40	60	49.1	60544	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123224	PASS
199	198	5	9	6.5	8056	PASS
275	198	10	30	22.4	27568	PASS
365	198	1	100	2.3	2868	PASS
441	443	0.01	100	78.9	10002	PASS
442	198	40	100	52.9	65168	PASS
443	442	17	23	19.5	12677	PASS

Data File	Sample Number	Analysis Date:
5M101320.D	CAL BNA@50PPM	10/20/17 08:56
5M101321.D	CAL BNA@10PPM	10/20/17 09:25
5M101322.D	CAL BNA@2PPM	10/20/17 09:48
5M101323.D	CAL BNA@196PP	10/20/17 10:26
5M101324.D	CAL BNA@160PP	10/20/17 10:49
5M101325.D	CAL BNA@120PP	10/20/17 11:12
5M101326.D	CAL BNA@80PPM	10/20/17 11:34
5M101327.D	CAL BNA@20PPM	10/20/17 11:57
5M101328.D	CAL BNA@.5PPM	10/20/17 12:20
5M101329.D	CAL BNA@50PPM	10/20/17 12:43
5M101330.D	ICV BNA@50PPM	10/20/17 13:06

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7
Data File: 7M87594.D
Analysis Date: 11/13/17 09:03
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.998 to 10.003 min

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	43.3	53236	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.5	59664	PASS
70	69	0.00	2	1.1	629	PASS
127	198	40	60	56.9	70004	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123016	PASS
199	198	5	9	6.9	8460	PASS
275	198	10	30	22.5	27632	PASS
365	198	1	100	2.4	2966	PASS
441	443	0.01	100	70.9	9570	PASS
442	198	40	100	52.5	64600	PASS
443	442	17	23	20.9	13488	PASS

Data File	Sample Number	Analysis Date:
7M87595.D	CAL BNA@50PPM	11/13/17 09:31
7M87596.D	WMB63382(MS)	11/13/17 09:57
7M87597.D	WMB63382	11/13/17 10:21
7M87598.D	01064-014	11/13/17 10:44
7M87599.D	01063-014	11/13/17 11:07
7M87600.D	01063-017(MS:AD0	11/13/17 11:30
7M87601.D	01063-018(MSD:A	11/13/17 11:54
7M87602.D	01063-015	11/13/17 12:17
7M87603.D	01063-016	11/13/17 12:40
7M87604.D	01063-019	11/13/17 13:04
7M87605.D	01063-020	11/13/17 13:27
7M87606.D	01063-021	11/13/17 13:50
7M87607.D	WMB63387(MS)	11/13/17 14:13
7M87608.D	WMB63387	11/13/17 14:37
7M87609.D	AD01096-001	11/13/17 15:31
7M87610.D	AD01096-002(MS:	11/13/17 15:54
7M87611.D	AD01096-003(MSD	11/13/17 16:18
7M87612.D	AD01096-004	11/13/17 16:41
7M87613.D	AD01096-005	11/13/17 17:04
7M87614.D	AD01096-006	11/13/17 17:28
7M87615.D	AD01096-007	11/13/17 17:51
7M87616.D	AD01096-008	11/13/17 18:15
7M87617.D	AD01096-009	11/13/17 18:38
7M87618.D	AD01096-010	11/13/17 19:01
7M87619.D	AD01096-011	11/13/17 19:25
7M87620.D	AD01096-012	11/13/17 19:48
7M87621.D	AD01096-013	11/13/17 20:12
7M87622.D	AD01096-014	11/13/17 20:35

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M66012.D
Analysis Date: 11/13/17 09:06
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.991 to 10.001 min

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	59.6	18623	PASS
68	69	0.00	2	1.2	192	PASS
69	198	0.00	100	49.8	15574	PASS
70	69	0.00	2	0.8	127	PASS
127	198	40	60	56.9	17790	PASS
197	198	0.00	1	0.3	94	PASS
198	198	100	100	100.0	31243	PASS
199	198	5	9	6.5	2023	PASS
275	198	10	30	27.7	8650	PASS
365	198	1	100	4.3	1354	PASS
441	443	0.01	100	77.3	4366	PASS
442	198	40	100	93.5	29219	PASS
443	442	17	23	19.3	5644	PASS

Data File	Sample Number	Analysis Date:
10M66013.D	BNA@50PPM	11/13/17 10:26
10M66014.D	CAL BNA@50PPM	11/13/17 13:15
10M66015.D	WMB63387	11/13/17 14:10
10M66016.D	SMB63395(MS)	11/13/17 14:32
10M66017.D	SMB63395	11/13/17 14:55
10M66018.D	SMB63391(MS)	11/13/17 15:17
10M66019.D	SMB63391	11/13/17 15:39
10M66020.D	AD01096-015(5X)	11/13/17 16:01
10M66021.D	AD01096-016	11/13/17 16:23
10M66022.D	AD01080-015	11/13/17 16:46
10M66023.D	AD01080-019	11/13/17 17:08
10M66024.D	AD01080-002	11/13/17 17:30
10M66025.D	AD01080-003	11/13/17 17:52
10M66026.D	AD01080-005	11/13/17 18:15

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7
Data File: 7M87623.D
Analysis Date: 11/14/17 08:38
Method: EPA 8270D

Tune Scan/Time Range: Scan 1434

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	35.7	57184	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.4	67792	PASS
70	69	0.00	2	0.8	571	PASS
127	198	40	60	53.6	85744	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	160000	PASS
199	198	5	9	6.9	11004	PASS
275	198	10	30	26.0	41544	PASS
365	198	1	100	2.7	4302	PASS
441	443	0.01	100	77.6	16488	PASS
442	198	40	100	69.9	111872	PASS
443	442	17	23	19.0	21248	PASS

Data File	Sample Number	Analysis Date:
7M87624.D	CAL BNA@50PPM	11/14/17 09:03
7M87625.D	WMB63390	11/14/17 09:33
7M87626.D	AD00971-001(T)	11/14/17 09:56
7M87627.D	AD00920-009(T)	11/14/17 10:20
7M87628.D	AD01015-001(T)	11/14/17 10:43
7M87629.D	AD00920-009(10X)	11/14/17 11:06
7M87630.D	WMB63390	11/14/17 11:30
7M87631.D	AD01071-001	11/14/17 11:53
7M87632.D	AD01071-002	11/14/17 12:17
7M87633.D	AD01071-003	11/14/17 12:40
7M87634.D	AD01071-004	11/14/17 13:04
7M87635.D	AD01071-005	11/14/17 13:27
7M87636.D	AD01071-006	11/14/17 13:50
7M87637.D	WMB63394	11/14/17 14:14
7M87638.D	AD00920-009(T)(R)	11/14/17 15:45
7M87639.D	WMB63402	11/14/17 16:09
7M87640.D	SMB63407(MS)	11/14/17 16:33
7M87641.D	SMB63407	11/14/17 16:57
7M87642.D	AD01063-001	11/14/17 17:21
7M87643.D	AD01063-002(10X)	11/14/17 17:44
7M87644.D	AD01063-003	11/14/17 18:08
7M87645.D	AD01063-004	11/14/17 18:31
7M87646.D	AD01063-006	11/14/17 18:55
7M87647.D	AD01063-008	11/14/17 19:19
7M87648.D	AD01063-011	11/14/17 19:42
7M87649.D	AD01063-013	11/14/17 20:05

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 5
Data File: 5M101507.D
Analysis Date: 11/14/17 08:38
Method: EPA 8270D

Tune Scan/Time Range: Scan 1416

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	38.2	34928	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.4	36024	PASS
70	69	0.00	2	0.8	274	PASS
127	198	40	60	50.2	45952	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	91496	PASS
199	198	5	9	7.1	6473	PASS
275	198	10	30	22.0	20168	PASS
365	198	1	100	2.3	2065	PASS
441	443	0.01	100	75.9	7035	PASS
442	198	40	100	50.1	45816	PASS
443	442	17	23	20.2	9263	PASS

Data File	Sample Number	Analysis Date:
5M101508.D	CAL BNA@50PPM	11/14/17 09:01
5M101509.D	EF-1 V-266631(11/	11/14/17 09:37
5M101510.D	EF-1 V-266631(11/	11/14/17 10:00
5M101511.D	AD01055-009	11/14/17 10:23
5M101512.D	AD01028-013(R)	11/14/17 10:46
5M101513.D	AD01050-005(R)	11/14/17 11:09
5M101514.D	AD01066-001	11/14/17 11:47
5M101515.D	WMB63387(MS)	11/14/17 12:10
5M101516.D	WMB63394(MS)	11/14/17 12:33
5M101517.D	WMB63394	11/14/17 12:57
5M101518.D	AD01067-001	11/14/17 13:20
5M101519.D	AD01067-002	11/14/17 13:43
5M101520.D	AD01063-014(10X)	11/14/17 15:39
5M101521.D	WMB63402(MS)	11/14/17 16:03
5M101522.D	WMB63402	11/14/17 16:27
5M101523.D	AD01063-017(10X)	11/14/17 16:52
5M101524.D	AD01063-018(10X)	11/14/17 17:15
5M101525.D	AD01063-015	11/14/17 17:38
5M101526.D	AD01063-016	11/14/17 18:02
5M101527.D	AD01063-019	11/14/17 18:25
5M101528.D	AD01063-020	11/14/17 18:49
5M101529.D	AD01063-021	11/14/17 19:12
5M101530.D	AD01063-022	11/14/17 19:36
5M101531.D	AD01063-023	11/14/17 19:59
5M101532.D	AD01063-024	11/14/17 20:23

Form 5

Tune Name: CAL DFTPP **Data File:** 7M87650.D
Instrument: GCMS 7 **Analysis Date:** 11/15/17 09:04
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.987 to 9.993 min

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	39.5	54340	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	63036	PASS
70	69	0.00	2	0.6	352	PASS
127	198	40	60	56.0	77120	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	137712	PASS
199	198	5	9	6.7	9201	PASS
275	198	10	30	23.3	32148	PASS
365	198	1	100	2.5	3392	PASS
441	443	0.01	100	74.1	12178	PASS
442	198	40	100	59.7	82224	PASS
443	442	17	23	20.0	16442	PASS

Data File	Sample Number	Analysis Date:
7M87651.D	CAL BNA@50PPM	11/15/17 09:29
7M87652.D	AD01097-006	11/15/17 10:36
7M87653.D	AD01097-007(MS:	11/15/17 11:00
7M87654.D	AD01097-008(MSD	11/15/17 11:23
7M87655.D	AD01097-001	11/15/17 11:46
7M87656.D	AD01097-002	11/15/17 12:09
7M87657.D	AD01097-003	11/15/17 12:33
7M87658.D	AD01097-004	11/15/17 12:56
7M87659.D	AD01097-005	11/15/17 13:20
7M87660.D	AD01063-010(50X)	11/15/17 13:43
7M87661.D	WMB63410(MS)	11/15/17 14:06
7M87662.D	WMB63410	11/15/17 14:31
7M87663.D	AD01096-017	11/15/17 14:55
7M87664.D	AD01080-017	11/15/17 15:18
7M87665.D	WMB63412(MS)	11/15/17 15:42
7M87666.D	WMB63412	11/15/17 16:05
7M87667.D	WMB63410	11/15/17 16:28
7M87668.D	AD01106-001	11/15/17 16:52
7M87669.D	AD01106-002	11/15/17 17:15
7M87670.D	AD01106-002(MS)	11/15/17 17:39
7M87671.D	AD01106-002(MSD	11/15/17 18:02
7M87672.D	AD01082-013	11/15/17 18:26
7M87673.D	AD01082-022(MS:	11/15/17 18:49
7M87674.D	AD01082-024(MSD	11/15/17 19:12
7M87675.D	AD01082-020	11/15/17 19:36
7M87676.D	AD01082-021	11/15/17 19:59
7M87677.D	AD01082-026	11/15/17 20:23
7M87678.D	AD01082-027	11/15/17 20:46
7M87679.D	AD01083-001	11/15/17 21:09
7M87680.D	AD01083-002	11/15/17 21:33
7M87681.D	AD01083-003	11/15/17 21:56

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M66038.D
Analysis Date: 11/15/17 10:42
Method: EPA 8270D

Tune Scan/Time Range: Scan 1459

Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	42.9	66792	PASS
68	69	0.00	2	1.9	1263	PASS
69	198	0.00	100	43.1	66952	PASS
70	69	0.00	2	0.6	415	PASS
127	198	40	60	52.9	82320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	155520	PASS
199	198	5	9	6.5	10053	PASS
275	198	10	30	25.7	39928	PASS
365	198	1	100	3.6	5549	PASS
441	443	0.01	100	73.9	13468	PASS
442	198	40	100	61.1	94968	PASS
443	442	17	23	19.2	18216	PASS

Data File	Sample Number	Analysis Date:
10M66039.D	CAL BNA@50PPM	11/15/17 11:11
10M66040.D	AD01055-002	11/15/17 11:35
10M66041.D	AD01055-004	11/15/17 11:57
10M66042.D	AD01055-006	11/15/17 12:19
10M66043.D	AD01055-008	11/15/17 12:41
10M66044.D	AD01055-001	11/15/17 13:03
10M66045.D	SMB63406(MS)	11/15/17 13:25
10M66046.D	OMB63405(MS)	11/15/17 13:48
10M66047.D	AD01111-001(3X)(	11/15/17 14:10
10M66048.D	AD01111-006(3X)(	11/15/17 14:32
10M66049.D	AD01111-010(3X)(	11/15/17 14:54
10M66050.D	SMB63406	11/15/17 15:17
10M66051.D	OMB63405	11/15/17 15:39
10M66052.D	WMB63410	11/15/17 16:01
10M66053.D	WMB63412	11/15/17 16:23
10M66054.D	AD01055-003	11/15/17 16:46
10M66055.D	AD01055-005	11/15/17 17:08
10M66056.D	AD01055-007	11/15/17 17:30
10M66057.D	AD01145-002(MS)	11/15/17 17:52
10M66058.D	AD01145-002(MSD	11/15/17 18:15
10M66059.D	AD01145-002	11/15/17 18:37
10M66060.D	AD01080-002(R)	11/15/17 18:59
10M66061.D	AD01097-009	11/15/17 19:21
10M66062.D	AD01097-010	11/15/17 19:44
10M66063.D	AD01097-011	11/15/17 20:06
10M66064.D	AD01097-012	11/15/17 20:28
10M66065.D	AD01097-013	11/15/17 20:50
10M66066.D	AD01096-015(5X)(	11/15/17 21:12

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FORM8

Internal Standard Areas

Evaluation Std Data File: 10M65435.D Method: EPA 8270D

Analysis Date/Time: 10/11/17 16:13

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:	33882	2.60	80006	5.83	313413	6.84	183517	8.26	322810	9.72	359198	12.77	321946	14.38
Eval File Area Limit:	16941-67764		40003-160012		156706-626826		91758-367034		161405-645620		179599-718396		160973-643892	
Eval File Rt Limit:	2.1-3.1		5.33-6.33		6.34-7.34		7.76-8.76		9.22-10.22		12.27-13.27		13.88-14.88	

Data File	Sample													
10M65426.D	CAL BNA@2PPM	38350	2.59	81219	5.83	313189	6.84	196803	8.26	349781	9.72	392993	12.77	369787	14.38
10M65427.D	CAL BNA@196PPM	33418	2.59	80231	5.83	298751	6.84	179421	8.27	308588	9.73	350214	12.78	309769	14.39
10M65428.D	CAL BNA@160PPM	36197	2.60	81920	5.83	310531	6.84	190542	8.27	323755	9.73	359216	12.78	319956	14.39
10M65429.D	CAL BNA@120PPM	35608	2.60	82961	5.83	315332	6.84	193828	8.27	333927	9.73	367703	12.77	327547	14.39
10M65430.D	CAL BNA@80PPM	37964	2.59	88373	5.83	332936	6.84	199190	8.27	334028	9.72	376074	12.77	329816	14.38
10M65432.D	CAL BNA@20PPM	34701	2.60	79941	5.83	312842	6.83	183746	8.26	327149	9.72	364074	12.77	344269	14.38
10M65433.D	CAL BNA@.5PPM	36149	2.60	83752	5.83	318277	6.83	195240	8.26	345745	9.72	386495	12.77	364714	14.38
10M65434.D	CAL BNA@10PPM	34604	2.59	82858	5.83	312202	6.83	188948	8.26	329666	9.72	377792	12.77	341767	14.38
10M65435.D	CAL BNA@50PPM	33882	2.60	80006	5.83	313413	6.84	183517	8.26	322810	9.72	359198	12.77	321946	14.38
10M65436.D	ICV BNA@50PPM	34933	2.60	81394	5.83	315720	6.84	188413	8.26	322768	9.72	359935	12.77	318447	14.38

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

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FORM8

Internal Standard Areas

Evaluation Std Data File: 7M87278.D Method: EPA 8270D

Analysis Date/Time: 10/19/17 13:35

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:	47969	2.57	90204	5.82	354748	6.83	215271	8.26	396811	9.72	450319	12.77	446458	14.41
Eval File Area Limit:	23984-95938		45102-180408		177374-709496		107636-430542		198406-793622		225160-900638		223229-892916	
Eval File Rt Limit:	2.07-3.07		5.32-6.32		6.33-7.33		7.76-8.76		9.22-10.22		12.27-13.27		13.91-14.91	

Data File	Sample													
7M87270.D	CAL BNA@2PPM	48164	2.57	90071	5.82	367923	6.83	221522	8.26	400067	9.71	432992	12.77	407354	14.39
7M87271.D	CAL BNA@10PPM	45704	2.57	83537	5.82	337736	6.83	201429	8.26	361587	9.72	397913	12.77	375050	14.39
7M87272.D	CAL BNA@196PPM	42028	2.56	75799	5.82	307691	6.84	194093	8.27	366659	9.73	387188	12.78	373478	14.39
7M87273.D	CAL BNA@160PPM	51053	2.57	91334	5.82	369177	6.84	223992	8.27	417905	9.73	432828	12.78	412194	14.41
7M87274.D	CAL BNA@120PPM	45566	2.57	85420	5.82	353649	6.83	221886	8.26	417488	9.72	454475	12.78	448390	14.39
7M87275.D	CAL BNA@80PPM	43489	2.57	85499	5.82	347381	6.83	216607	8.26	407932	9.71	459088	12.77	459411	14.39
7M87276.D	CAL BNA@20PPM	50976	2.57	92669	5.82	353750	6.83	204711	8.26	363279	9.71	405369	12.77	384315	14.39
7M87277.D	CAL BNA@.5PPM	46605	2.57	87656	5.82	355993	6.83	215585	8.26	390883	9.72	429139	12.77	402635	14.39
7M87278.D	CAL BNA@50PPM	47969	2.57	90204	5.82	354748	6.83	215271	8.26	396811	9.72	450319	12.77	446458	14.41
7M87279.D	ICV BNA@50PPM	44984	2.57	85821	5.82	342078	6.83	203728	8.26	379411	9.72	428982	12.77	401313	14.41

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

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FORM8

Internal Standard Areas

Evaluation Std Data File: 5M101329.D Method: EPA 8270D

Analysis Date/Time: 10/20/17 12:43

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:	38907	2.43	78662	5.71	327254	6.73	207026	8.15	376951	9.60	445075	12.64	401167	14.25
Eval File Area Limit:	19454-77814		39331-157324		163627-654508		103513-414052		188476-753902		222538-890150		200584-802334	
Eval File Rt Limit:	1.93-2.93		5.21-6.21		6.23-7.23		7.65-8.65		9.1-10.1		12.14-13.14		13.75-14.75	

Data File	Sample													
5M101321.D	CAL BNA@10PPM	34776	2.43	70328	5.71	288262	6.73	178968	8.15	340868	9.60	416531	12.64	389436	14.25
5M101322.D	CAL BNA@2PPM	36548	2.43	72363	5.71	299029	6.73	184095	8.15	384490	9.60	466759	12.64	393641	14.25
5M101323.D	CAL BNA@196PPM	32780	2.43	78163	5.72	332760	6.74	217665	8.16	356516	9.61	412279	12.66	375753	14.26
5M101324.D	CAL BNA@160PPM	36817	2.43	75426	5.72	336425	6.73	199804	8.16	362989	9.60	423719	12.65	419436	14.25
5M101325.D	CAL BNA@120PPM	36545	2.43	77243	5.71	307881	6.73	201651	8.16	380998	9.60	434740	12.65	400127	14.25
5M101326.D	CAL BNA@80PPM	35532	2.43	74916	5.71	344094	6.73	222542	8.15	372915	9.60	448310	12.65	425587	14.25
5M101327.D	CAL BNA@20PPM	36316	2.43	76446	5.71	320786	6.73	206107	8.15	381862	9.60	463803	12.64	469140	14.25
5M101328.D	CAL BNA@.5PPM	35960	2.43	72588	5.71	298763	6.73	188904	8.15	376428	9.60	422689	12.64	397888	14.24
5M101329.D	CAL BNA@50PPM	38907	2.43	78662	5.71	327254	6.73	207026	8.15	376951	9.60	445075	12.64	401167	14.25
5M101330.D	ICV BNA@50PPM	37539	2.43	78008	5.71	316916	6.73	225026	8.15	419522	9.60	439175	12.64	385923	14.25

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

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FORM8

Internal Standard Areas

Evaluation Std Data File: 7M87595.D Method: EPA 8270D

Analysis Date/Time: 11/13/17 09:31

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:	62835	2.56	107593	5.82	414539	6.83	240401	8.26	425253	9.71	439082	12.77	417367	14.40
Eval File Area Limit:	31418-125670		53796-215186		207270-829078		120200-480802		212626-850506		219541-878164		208684-834734	
Eval File Rt Limit:	2.06-3.06		5.32-6.32		6.33-7.33		7.76-8.76		9.21-10.21		12.27-13.27		13.9-14.9	

Data File	Sample														
7M87596.D	WMB63382(MS)	52315	2.56	92812	5.82	360903	6.82	208062	8.25	364966	9.71	366446	12.77	334965	14.39
7M87597.D	WMB63382	51337	2.57	92286	5.82	361508	6.83	212943	8.26	380678	9.71	380796	12.76	343470	14.39
7M87598.D	01064-014	57164	2.57	102970	5.82	401242	6.83	230531	8.26	407596	9.71	406775	12.76	362519	14.39
7M87599.D	01063-014	45217	2.57	77121	5.81	273708	6.84	176159	8.26	313528	9.71	329834	12.76	296167	14.39
7M87600.D	01063-017(MS:AD010	58615	2.57	92475	5.82	332991	6.84	202633	8.26	359858	9.71	370018	12.77	335083	14.39
7M87601.D	01063-018(MSD:AD01	51465	2.57	88500	5.81	327366	6.84	202780	8.26	357187	9.71	372898	12.77	337816	14.39
7M87602.D	01063-015	47554	2.57	81213	5.82	307279	6.82	174404	8.26	311869	9.71	313593	12.76	282574	14.40
7M87603.D	01063-016	52742	2.57	92125	5.82	362443	6.83	209378	8.26	370019	9.72	362076	12.76	320424	14.39
7M87604.D	01063-019	49224	2.57	83209	5.82	325700	6.83	189795	8.26	331763	9.71	320458	12.76	280932	14.39
7M87605.D	01063-020	50121	2.57	86721	5.82	341260	6.82	198549	8.25	346729	9.71	343840	12.76	305095	14.39
7M87606.D	01063-021	52268	2.57	91184	5.81	360368	6.82	207449	8.25	365744	9.71	358565	12.76	316953	14.39
7M87607.D	WMB63387(MS)	62124	2.57	99985	5.82	383305	6.83	214939	8.26	377002	9.71	375684	12.77	338871	14.39
7M87608.D	WMB63387	54505	2.57	98063	5.82	387681	6.82	227680	8.25	403326	9.71	395760	12.76	352089	14.38
7M87609.D	AD01096-001	59360	2.56	104385	5.82	403639	6.85	230681	8.29	397439	9.74	383735	12.77	326591	14.41
7M87610.D	AD01096-002(MS:AD	55259	2.57	96631	5.81	375944	6.82	215125	8.25	380317	9.71	380764	12.77	334443	14.38
7M87611.D	AD01096-003(MSD:A	55888	2.57	100296	5.82	383224	6.82	219669	8.25	388728	9.71	380101	12.77	336967	14.39
7M87612.D	AD01096-004	52703	2.57	96822	5.82	378154	6.82	216235	8.25	378997	9.71	368244	12.76	318086	14.38
7M87613.D	AD01096-005	65508	2.57	111200	5.82	426258	6.82	237457	8.25	408995	9.71	385740	12.76	336396	14.38
7M87614.D	AD01096-006	55494	2.57	101121	5.82	398571	6.82	229128	8.25	396435	9.71	374986	12.76	316702	14.39
7M87615.D	AD01096-007	59373	2.57	108942	5.81	421234	6.82	245849	8.25	419473	9.71	396317	12.76	334667	14.38
7M87616.D	AD01096-008	49894	2.57	92643	5.82	371765	6.82	213893	8.25	367602	9.71	352940	12.76	300707	14.38
7M87617.D	AD01096-009	56757	2.57	105789	5.81	422609	6.82	246555	8.25	428617	9.71	392790	12.76	345089	14.38
7M87618.D	AD01096-010	53839	2.57	103622	5.82	401827	6.82	231865	8.25	402297	9.71	391039	12.76	336528	14.38
7M87619.D	AD01096-011	63780	2.57	119563	5.82	464680	6.82	272441	8.25	457354	9.71	421677	12.76	373105	14.38
7M87620.D	AD01096-012	56705	2.57	110051	5.81	432365	6.82	252663	8.25	431561	9.71	381455	12.76	318151	14.38
7M87621.D	AD01096-013	60547	2.57	115691	5.81	454890	6.82	265555	8.25	462689	9.71	424209	12.76	362154	14.38
7M87622.D	AD01096-014	49333	2.57	94334	5.82	367935	6.82	211138	8.25	355762	9.71	314320	12.76	275427	14.38

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

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FORM8

Internal Standard Areas

Evaluation Std Data File: 10M66014.D Method: EPA 8270D

Analysis Date/Time: 11/13/17 13:15

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:	20066	2.59	44202	5.82	164849	6.83	97341	8.26	176396	9.72	220519	12.76	199151	14.38
Eval File Area Limit:	10033-40132		22101-88404		82424-329698		48670-194682		88198-352792		110260-441038		99576-398302	
Eval File Rt Limit:	2.09-3.09		5.32-6.32		6.33-7.33		7.76-8.76		9.22-10.22		12.26-13.26		13.88-14.88	

Data File	Sample													
10M66013.D	BNA@50PPM	16123	2.59	34152	5.82	135972	6.83	77668	8.26	130377	9.72	166721	12.77	160734	14.38
10M66015.D	WMB63387	16507	2.58	34035	5.82	124074	6.83	72356	8.26	127306	9.72	145306	12.76	150699	14.38
10M66016.D	SMB63395(MS)	19307	2.59	40186	5.82	150144	6.83	82730	8.26	146041	9.71	163770	12.76	138488	14.37
10M66017.D	SMB63395	21599	2.59	42460	5.82	159460	6.83	94897	8.26	165917	9.72	177775	12.76	156807	14.37
10M66018.D	SMB63391(MS)	15241	2.59	33325	5.82	127481	6.83	74898	8.26	124637	9.72	140265	12.76	144931	14.38
10M66019.D	SMB63391	17463	2.59	36036	5.82	133802	6.83	78501	8.26	131732	9.71	131672	12.76	123534	14.38
10M66020.D	AD01096-015(5X)	15893	2.59	33254	5.82	129158	6.83	75785	8.26	127072	9.72	149370	12.76	161806	14.38
10M66021.D	AD01096-016	19012	2.59	41346	5.82	172497	6.83	94500	8.26	161058	9.72	196494	12.76	199531	14.38
10M66022.D	AD01080-015	24877	2.59	52479	5.82	185210	6.83	108069	8.26	186344	9.72	162921	12.76	166645	14.38
10M66023.D	AD01080-019	20174	2.59	41177	5.82	161411	6.83	84329	8.26	144025	9.72	147919	12.76	148761	14.38
10M66024.D	AD01080-002	24776	2.59	50855	5.82	197271	6.83	101498	8.26	176583	9.72	170616	12.76	175718	14.38
10M66025.D	AD01080-003	23557	2.59	46787	5.82	175149	6.83	107027	8.26	168575	9.72	192014	12.76	198152	14.38
10M66026.D	AD01080-005	26047	2.59	54291	5.82	186352	6.83	103658	8.26	166293	9.72	178570	12.76	155659	14.38

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 = 30ug/L**
I3 =	Naphthalene-d8	I6 =	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.

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FORM8

Internal Standard Areas

Evaluation Std Data File: 5M101508.D Method: EPA 8270D

Analysis Date/Time: 11/14/17 09:01

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:	31105	2.43	69520	5.71	292823	6.73	190142	8.15	361044	9.60	450922	12.64	427480	14.25
Eval File Area Limit:	15552-62210		34760-139040		146412-585646		95071-380284		180522-722088		225461-901844		213740-854960	
Eval File Rt Limit:	1.93-2.93		5.21-6.21		6.23-7.23		7.65-8.65		9.1-10.1		12.14-13.14		13.75-14.75	

Data File	Sample														
5M101509.D	EF-1 V-266631(11/07)	30723	2.44	60353	5.71	243701	6.73	146313	8.15	277317	9.60	333127	12.64	339321	14.25
5M101510.D	EF-1 V-266631(11/09)	25916	2.44	52432	5.71	214257	6.73	137053	8.14	272091	9.60	370274	12.64	365795	14.24
5M101511.D	AD01055-009	27402	2.43	61267	5.71	253039	6.73	160134	8.14	288112	9.60	373939	12.64	357297	14.24
5M101512.D	AD01028-013(R)	24011	2.43	49211	5.71	196432	6.73	111131	8.14	193939	9.60	248488	12.63	248266	14.24
5M101513.D	AD01050-005(R)	26557	2.43	52936	5.71	206494	6.73	124229	8.14	226256	9.60	272630	12.64	265143	14.24
5M101514.D	AD01066-001	29731	2.43	57461	5.71	229033	6.73	136380	8.15	241180	9.60	294227	12.64	287288	14.25
5M101515.D	WMB63387(MS)	32191	2.43	67560	5.71	271750	6.73	173010	8.15	324944	9.60	383084	12.64	359784	14.25
5M101516.D	WMB63394(MS)	31895	2.43	68257	5.71	269777	6.73	162888	8.15	293573	9.60	368035	12.64	342661	14.25
5M101517.D	WMB63394	28640	2.43	54774	5.71	219628	6.73	134276	8.14	244606	9.60	304931	12.64	302535	14.24
5M101518.D	AD01067-001	27107	2.43	56570	5.71	227762	6.73	139718	8.14	257496	9.60	330260	12.64	320550	14.24
5M101519.D	AD01067-002	27679	2.43	53316	5.71	216511	6.73	132439	8.14	251614	9.59	325819	12.64	314719	14.24
5M101520.D	AD01063-014(10X)	32288	2.43	62095	5.71	257562	6.73	165042	8.15	320276	9.60	412350	12.64	410924	14.25
5M101521.D	WMB63402(MS)	29228	2.43	57459	5.71	227963	6.73	143535	8.15	268148	9.60	334234	12.64	320891	14.25
5M101522.D	WMB63402	28167	2.43	58468	5.71	224921	6.73	137248	8.14	238186	9.60	287740	12.64	282134	14.24
5M101523.D	AD01063-017(10X)(M	33564	2.43	66578	5.71	266787	6.73	164362	8.14	294911	9.60	360605	12.64	349612	14.24
5M101524.D	AD01063-018(10X)(M	27462	2.43	57661	5.71	236666	6.73	148575	8.14	294510	9.60	396495	12.64	392426	14.24
5M101525.D	AD01063-015	21400	2.43	43137	5.71	180114	6.73	110895	8.14	207090	9.60	273720	12.64	273584	14.24
5M101526.D	AD01063-016	30727	2.43	59147	5.71	238347	6.73	146417	8.14	266327	9.60	319471	12.64	307792	14.24
5M101527.D	AD01063-019	30360	2.43	60662	5.71	238350	6.73	144930	8.14	261366	9.59	310295	12.64	294563	14.24
5M101528.D	AD01063-020	30708	2.43	61154	5.71	241772	6.73	149301	8.14	279254	9.60	344649	12.64	336470	14.24
5M101529.D	AD01063-021	29341	2.43	55103	5.71	229511	6.73	145546	8.14	277936	9.60	351798	12.64	335574	14.24
5M101530.D	AD01063-022	27459	2.43	55762	5.71	232216	6.73	154866	8.14	295708	9.60	395975	12.64	393101	14.24
5M101531.D	AD01063-023	29091	2.43	52366	5.71	217140	6.73	134893	8.14	259726	9.59	296845	12.64	298154	14.24
5M101532.D	AD01063-024	29783	2.43	58287	5.71	242057	6.73	152528	8.14	298142	9.60	381559	12.64	367502	14.24

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

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FORM8

Internal Standard Areas

Evaluation Std Data File: 7M87624.D Method: EPA 8270D

Analysis Date/Time: 11/14/17 09:03

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:	56796	2.56	106395	5.82	432005	6.82	261982	8.26	469374	9.71	478725	12.77	444662	14.39
Eval File Area Limit:	28398-113592		53198-212790		216002-864010		130991-523964		234687-938748		239362-957450		222331-889324	
Eval File Rt Limit:	2.06-3.06		5.32-6.32		6.32-7.32		7.76-8.76		9.21-10.21		12.27-13.27		13.89-14.89	

Data File	Sample													
7M87625.D	WMB63390	55549	2.56	102271	5.82	423980	6.83	257086	8.26	461781	9.72	464613	12.77	368417	14.38
7M87626.D	AD00971-001(T)	48090	2.58	87960	5.81	350545	6.83	210935	8.26	383996	9.71	403978	12.76	363389	14.39
7M87627.D	AD00920-009(T)	55257	2.58	94070	5.82	373610	6.83	214007	8.26	415033	9.71	427415	12.77	330922	14.40
7M87628.D	AD01015-001(T)	41683	2.57	82017	5.81	338924	6.83	207429	8.26	372288	9.71	383271	12.77	342854	14.39
7M87629.D	AD00920-009(10X)(T)	65331	2.57	118990	5.82	475569	6.82	282790	8.25	515408	9.71	521957	12.76	470262	14.39
7M87630.D	WMB63390	54409	2.56	100549	5.82	412138	6.82	251327	8.25	449751	9.71	458677	12.76	417537	14.39
7M87631.D	AD01071-001	51062	2.57	92296	5.82	371343	6.82	220249	8.25	385743	9.71	383795	12.76	325695	14.38
7M87632.D	AD01071-002	55458	2.56	99586	5.82	400157	6.82	238227	8.26	420475	9.72	421666	12.76	365712	14.38
7M87633.D	AD01071-003	50173	2.57	92525	5.82	374916	6.82	221735	8.25	400440	9.71	399875	12.76	339186	14.39
7M87634.D	AD01071-004	51882	2.57	96509	5.81	374418	6.82	218264	8.26	374507	9.71	370988	12.77	311887	14.42
7M87635.D	AD01071-005	55646	2.57	101292	5.82	403009	6.83	237670	8.26	409910	9.71	412283	12.76	354204	14.39
7M87636.D	AD01071-006	47574	2.57	89462	5.82	365991	6.82	220876	8.25	395362	9.71	395833	12.76	332390	14.40
7M87637.D	WMB63394	47335	2.57	88586	5.81	356407	6.82	215502	8.25	387764	9.71	401440	12.76	344611	14.41
7M87638.D	AD00920-009(T)(R)	56327	2.57	90785	5.82	359137	6.84	206828	8.28	395924	9.73	395397	12.77	322776	14.41
7M87639.D	WMB63402	45857	2.56	85399	5.82	351354	6.82	214997	8.25	383411	9.71	381701	12.76	327915	14.38
7M87640.D	SMB63407(MS)	53420	2.56	96642	5.81	390784	6.82	239783	8.25	429767	9.71	438146	12.77	387620	14.39
7M87641.D	SMB63407	56940	2.56	104981	5.81	423564	6.82	254924	8.25	446718	9.71	428542	12.76	366023	14.38
7M87642.D	AD01063-001	43183	2.57	79100	5.82	317826	6.82	189644	8.25	342543	9.71	342466	12.76	299591	14.38
7M87643.D	AD01063-002(10X)	52400	2.57	94703	5.81	395968	6.82	242157	8.25	441262	9.71	435047	12.76	376806	14.38
7M87644.D	AD01063-003	51337	2.57	94663	5.82	386016	6.82	232829	8.25	420366	9.71	414784	12.76	360856	14.38
7M87645.D	AD01063-004	54200	2.57	95900	5.82	390278	6.82	233958	8.25	415967	9.71	410062	12.76	356836	14.38
7M87646.D	AD01063-006	56127	2.56	101859	5.82	408465	6.82	247979	8.25	450806	9.71	462931	12.76	404958	14.38
7M87647.D	AD01063-008	46383	2.57	84289	5.82	346646	6.82	210593	8.25	376865	9.71	374724	12.76	324078	14.38
7M87648.D	AD01063-011	50845	2.57	89932	5.82	353078	6.82	211111	8.25	373688	9.71	379824	12.76	331230	14.38
7M87649.D	AD01063-013	50489	2.57	89121	5.82	356342	6.82	211778	8.25	372922	9.71	373382	12.76	328203	14.38

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 = 30ug/L**
I3 =	Naphthalene-d8	I6 =	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.

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FORM8

Internal Standard Areas

Evaluation Std Data File: 7M87651.D Method: EPA 8270D

Analysis Date/Time: 11/15/17 09:29

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:	59711	2.56	104269	5.82	405274	6.82	240221	8.25	436161	9.71	453883	12.77	424969	14.39
Eval File Area Limit:	29856-119422		52134-208538		202637-810548		120110-480442		218080-872322		226942-907766		212484-849938	
Eval File Rt Limit:	2.06-3.06		5.32-6.32		6.32-7.32		7.75-8.75		9.21-10.21		12.27-13.27		13.89-14.89	

Data File	Sample													
7M87652.D	AD01097-006	57391	2.56	102837	5.82	401749	6.84	235195	8.29	409841	9.74	428043	12.77	393491	14.42
7M87653.D	AD01097-007(MS:AD	55528	2.57	93838	5.82	373239	6.82	223617	8.25	403323	9.71	412846	12.77	370778	14.39
7M87654.D	AD01097-008(MSD:A	46786	2.57	82271	5.82	328138	6.83	198180	8.25	354265	9.71	365129	12.77	340932	14.41
7M87655.D	AD01097-001	50181	2.57	94703	5.82	379281	6.82	219908	8.25	379058	9.71	367486	12.76	312457	14.38
7M87656.D	AD01097-002	50855	2.57	97467	5.82	384390	6.82	228105	8.25	403417	9.71	400151	12.76	334576	14.38
7M87657.D	AD01097-003	50482	2.56	98381	5.82	414165	6.82	250658	8.25	449316	9.71	432300	12.76	350882	14.38
7M87658.D	AD01097-004	51530	2.57	98150	5.82	393965	6.82	237817	8.25	404237	9.71	371899	12.76	308761	14.38
7M87659.D	AD01097-005	48531	2.57	95092	5.82	401264	6.84	244929	8.26	431700	9.72	379394	12.77	320440	14.39
7M87660.D	AD01063-010(50X)	67548	2.57	126665	5.82	499421	6.82	299777	8.25	530294	9.71	498844	12.76	414609	14.39
7M87661.D	WMB63410(MS)	56656	2.57	108209	5.81	439858	6.84	263971	8.27	477900	9.72	438822	12.77	362160	14.40
7M87662.D	WMB63410	49735	2.56	92885	5.82	376420	6.83	225534	8.26	404075	9.71	353616	12.77	319317	14.38
7M87663.D	AD01096-017	44514	2.57	83214	5.82	339914	6.83	205432	8.26	367072	9.71	335442	12.76	279320	14.39
7M87664.D	AD01080-017	52184	2.57	95321	5.82	382609	6.83	230930	8.26	411739	9.71	404920	12.76	344716	14.38
7M87665.D	WMB63412(MS)	47880	2.57	88965	5.81	362309	6.83	217694	8.26	389731	9.71	371357	12.77	319901	14.38
7M87666.D	WMB63412	45045	2.57	88333	5.82	356015	6.82	220029	8.25	394443	9.71	372977	12.76	294903	14.38
7M87667.D	WMB63410	53720	2.57	100229	5.82	406606	6.82	245378	8.25	440527	9.71	411960	12.76	337272	14.38
7M87668.D	AD01106-001	45695	2.57	84791	5.82	345083	6.82	205265	8.25	364391	9.71	346353	12.76	287924	14.38
7M87669.D	AD01106-002	47498	2.57	89464	5.82	340307	6.82	191738	8.25	340795	9.71	338585	12.76	276648	14.38
7M87670.D	AD01106-002(MS)	45998	2.57	87930	5.81	345766	6.82	201018	8.25	366055	9.71	337575	12.77	296804	14.38
7M87671.D	AD01106-002(MSD)	48775	2.57	94016	5.81	367800	6.82	218939	8.25	393795	9.71	368477	12.77	323667	14.38
7M87672.D	AD01082-013	47071	2.57	89982	5.82	255025	6.84	217829	8.25	395400	9.71	383779	12.76	319532	14.38
7M87673.D	AD01082-022(MS:AD	57833	2.57	104535	5.82	296769	6.84	250497	8.25	442994	9.71	419397	12.77	373467	14.38
7M87674.D	AD01082-024(MSD:A	53527	2.57	96363	5.82	280155	6.84	229490	8.25	409794	9.71	393472	12.77	350623	14.38
7M87675.D	AD01082-020	39025	2.57	77229	5.82	315166	6.82	198104	8.25	365188	9.71	346140	12.76	275645	14.38
7M87676.D	AD01082-021	55913	2.57	102914	5.81	274843	6.84	246483	8.25	444724	9.71	428470	12.76	360396	14.38
7M87677.D	AD01082-026	55156	2.57	105681	5.81	428951	6.82	260115	8.25	465481	9.71	431299	12.76	346265	14.38
7M87678.D	AD01082-027	58200	2.57	107279	5.82	433080	6.82	261378	8.25	461998	9.71	426018	12.76	357469	14.38

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

7111017 0081

FORM8

Internal Standard Areas

Evaluation Std Data File: 10M66039.D Method: EPA 8270D

Analysis Date/Time: 11/15/17 11:11

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:	45100	2.58	102757	5.82	410276	6.83	245443	8.26	428658	9.72	523383	12.76	497060	14.38
Eval File Area Limit:	22550-90200		51378-205514		205138-820552		122722-490886		214329-857316		261692-1046766		248530-994120	
Eval File Rt Limit:	2.08-3.08		5.32-6.32		6.33-7.33		7.76-8.76		9.22-10.22		12.26-13.26		13.88-14.88	

Data File	Sample													
10M66040.D	AD01055-002	59943	2.59	135672	5.82	507576	6.83	290529	8.26	486308	9.72	453481	12.76	362804	14.37
10M66041.D	AD01055-004	44505	2.59	102368	5.82	378476	6.83	228332	8.26	383728	9.72	382667	12.76	319122	14.38
10M66042.D	AD01055-006	46638	2.60	103739	5.82	390016	6.83	229017	8.26	374830	9.71	330920	12.76	261863	14.37
10M66043.D	AD01055-008	68164	2.60	153246	5.82	568133	6.83	326175	8.26	522791	9.72	450850	12.76	359178	14.37
10M66044.D	AD01055-001	52867	2.59	116927	5.82	447262	6.83	251681	8.26	399680	9.72	361082	12.76	354980	14.38
10M66045.D	SMB63406(MS)	71026	2.60	161837	5.82	572366	6.83	337242	8.26	498413	9.72	433017	12.76	347922	14.38
10M66046.D	OMB63405(MS)	37972	2.58	88317	5.82	353125	6.83	206289	8.26	368947	9.72	410873	12.76	391188	14.38
10M66047.D	AD01111-001(3X)(R)	49106	2.59	102526	5.83	376875	6.83	211885	8.26	322883	9.72	354177	12.76	350370	14.38
10M66048.D	AD01111-006(3X)(R)	47411	2.58	110492	5.85	365610	6.84	209823	8.26	350202	9.72	399778	12.76	362376	14.38
10M66049.D	AD01111-010(3X)(R)	50513	2.58	106280	5.85	390948	6.84	220520	8.26	357658	9.72	380074	12.76	377748	14.38
10M66050.D	SMB63406	75219	2.61	150719	5.82	532997	6.83	288049	8.26	430135	9.72	332494	12.76	287954	14.37
10M66051.D	OMB63405	37870	2.58	80367	5.82	305859	6.83	179126	8.26	297122	9.72	324850	12.76	318681	14.38
10M66052.D	WMB63410	36596	2.58	78490	5.82	305793	6.83	187892	8.26	323165	9.72	357446	12.76	327132	14.38
10M66053.D	WMB63412	29139	2.59	66640	5.82	266975	6.83	165397	8.26	286643	9.72	321672	12.76	309863	14.38
10M66054.D	AD01055-003	74050	2.61	153491	5.82	536666	6.83	285049	8.26	420235	9.72	303986	12.76	268695	14.37
10M66055.D	AD01055-005	91577A	2.61	190727	5.82	683603	6.83	362150	8.26	505564	9.72	375046	12.76	362879	14.38
10M66056.D	AD01055-007	64401	2.61	137956	5.82	468943	6.83	252822	8.26	363358	9.72	269999	12.76	262101	14.38
10M66057.D	AD01145-002(MS)	70108	2.61	148536	5.82	521930	6.83	283061	8.26	400651	9.72	315256	12.76	310458	14.38
10M66058.D	AD01145-002(MSD)	101705A	2.61	210794A	5.82	742267	6.83	391860	8.26	557467	9.72	402730	12.76	359384	14.38
10M66059.D	AD01145-002	54949	2.59	115255	5.82	421221	6.83	229651	8.26	351777	9.72	309435	12.76	338849	14.38
10M66060.D	AD01080-002(R)	86414	2.61	178849	5.82	631190	6.83	330383	8.26	463301	9.72	332565	12.76	292197	14.37
10M66061.D	AD01097-009	33141	2.58	72741	5.82	270829	6.83	165617	8.26	284655	9.72	305858	12.76	304333	14.38
10M66062.D	AD01097-010	35622	2.58	74709	5.82	282579	6.83	168489	8.26	277586	9.72	302526	12.76	290270	14.38
10M66063.D	AD01097-011	32808	2.58	67911	5.82	268378	6.83	159855	8.26	276826	9.72	286609	12.76	276279	14.38
10M66064.D	AD01097-012	32845	2.58	69628	5.82	266102	6.83	160603	8.26	271243	9.72	293830	12.76	291625	14.38
10M66065.D	AD01097-013	33795	2.58	71179	5.82	269487	6.83	160014	8.26	278845	9.72	292419	12.76	288253	14.38
10M66066.D	AD01096-015(5X)(R)	41525	2.58	89323	5.82	333457	6.83	207365	8.26	352644	9.72	382960	12.76	375773	14.38

I1 =	1,4-Dioxane-d8(INT)	I4 =	Acenaphthene-d10	I7 =	Perylene-d12
I2 =	1,4-Dichlorobenzene-d4	I5 =	Phenanthrene-d10		
I3 =	Naphthalene-d8	I6 =	Chrysene-d12		

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

GC/MS Base Neutral/Acid Extractable Data
Sample Data

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-001
Client Id: LMW-19
Data File: 7M87609.D
Analysis Date: 11/13/17 15:31
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0084

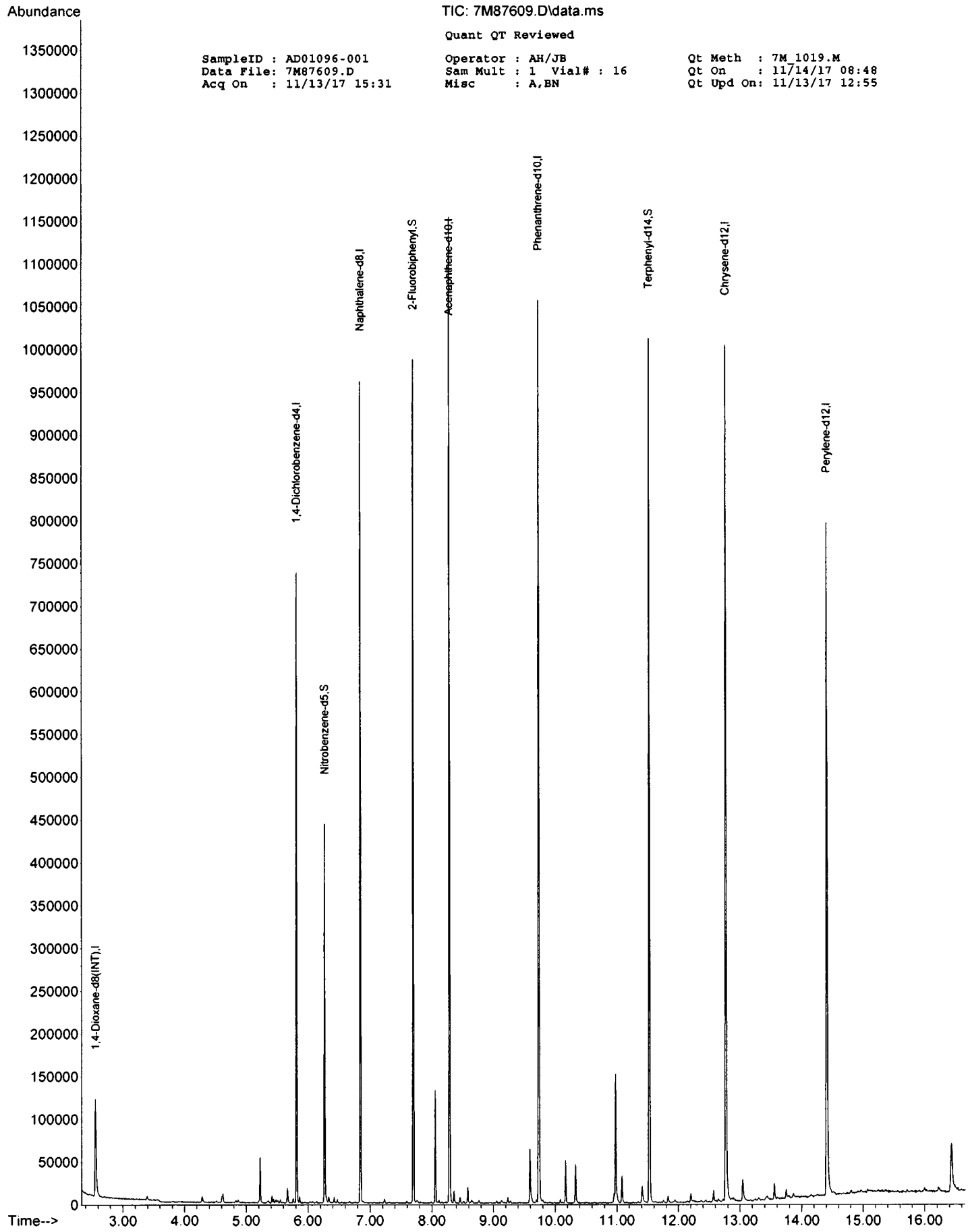
SampleID : AD01096-001 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87609.D Sam Mult : 1 Vial# : 16 Qt On : 11/14/17 08:48
Acq On : 11/13/17 15:31 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.556	96	59360	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.815	152	104385	40.00	ng	0.00
31) Naphthalene-d8	6.846	136	403639	40.00	ng	0.02
50) Acenaphthene-d10	8.289	164	230681	40.00	ng	0.03
77) Phenanthrene-d10	9.736	188	397439	40.00	ng	0.02
91) Chrysene-d12	12.771	240	383735	40.00	ng	0.00
103) Perylene-d12	14.411	264	326591	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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.269	128	60888	37.44	ng	0.00
Spiked Amount 50.000			Recovery =	74.88%		
55) 2-Fluorobiphenyl	7.701	172	288702	40.25	ng	0.03
Spiked Amount 50.000			Recovery =	80.50%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.526	244	307294	51.79	ng	0.00
Spiked Amount 50.000			Recovery =	103.58%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87609.D\data.ms
Quant QT Reviewed
SampleID : AD01096-001
Data File: 7M87609.D
Acq On : 11/13/17 15:31
Operator : AH/JB
Sam Mult : 1 Vial# : 16
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:48
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-002(MS:AD01
Client Id: LMW-19 MS
Data File: 7M87610.D
Analysis Date: 11/13/17 15:54
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 1ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	**1,4-Dioxane**	**0.50**	**31**				

Worksheet #: 444671

Total Target Concentration 31

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

Quantitation Report (QT Reviewed)

7111017 0087

SampleID : AD01096-002(MS:AD01 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87610.D Sam Mult : 1 Vial# : 17 Qt On : 11/14/17 08:50
Acq On : 11/13/17 15:54 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	55259	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	96631	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	375944	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	215125	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	380317	40.00	ng	-0.01
91) Chrysene-d12	12.765	240	380764	40.00	ng	0.00
103) Perylene-d12	14.384	264	334443	40.00	ng	-0.02
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	6.264	128	67135	44.32	ng	0.00
Spiked Amount 50.000			Recovery =	88.64%		
55) 2-Fluorobiphenyl	7.663	172	203342	30.40	ng	-0.01
Spiked Amount 50.000			Recovery =	60.80%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	326860	55.52	ng	0.00
Spiked Amount 50.000			Recovery =	111.04%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	43817	30.7253	ng	99
9) Pyridine	3.080	79	171013	43.7671	ng	70
10) N-Nitrosodimethylamine	3.000	74	87999	37.8743	ng	71
12) Benzaldehyde	5.441	77	214047	127.8019	ng	77
13) Aniline	5.532	93	434568	86.9301	ng	44
14) Pentachloroethane	5.575	117	4359	3.9071	ng	95
15) bis(2-Chloroethyl)ether	5.591	93	287443	76.8829	ng	80
19) N-Decane	5.676	57	95543	29.3014	ng	93
20) 1,3-Dichlorobenzene	5.767	146	282278	78.5053	ng	98
22) 1,4-Dichlorobenzene	5.831	146	284739	82.5539	ng	99
23) 1,2-Dichlorobenzene	5.954	146	275396	83.0155	ng	97
24) Benzyl alcohol	5.927	108	121339	54.6270	ng	73
25) bis(2-chloroisopropyl)...	6.039	45	296775	72.0159	ng	99
27) Acetophenone	6.146	105	373261	77.8852	ng	56
28) Hexachloroethane	6.232	117	110240	81.9066	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	187612	85.9863	ng	85
33) Nitrobenzene	6.280	77	298486	88.8982	ng	80
34) Isophorone	6.467	82	533267	85.1242	ng	86
38) bis(2-Chloroethoxy)met...	6.627	93	345286	87.2705	ng	98
40) 1,2,4-Trichlorobenzene	6.777	180	243611	88.5242	ng	96
41) Naphthalene	6.841	128	826604	82.3016	ng	99
42) 4-Chloroaniline	6.878	127	374254m	135.1723	ng	
43) Hexachlorobutadiene	6.926	225	122243	86.8616	ng	97
44) Caprolactam	7.124	113	15777	13.4887	ng	70
46) 2-Methylnaphthalene	7.375	142	499609	76.8317	ng	100
47) 1-Methylnaphthalene	7.455	142	463967	74.5262	ng	92
48) Methylnaphthalenes (To...	7.375	142	966003m	151.8261	ng	
49) 1,1'-Biphenyl	7.749	154	639436	83.6898	ng	94
51) 1,2,4,5-Tetrachloroben...	7.503	216	217522	80.2698	ng	98
52) Hexachlorocyclopentadiene	7.492	237	124482	81.9069	ng	99
56) 2-Chloronaphthalene	7.770	162	519033	90.5571	ng	92
57) 1,4-Dimethylnaphthalene	8.048	156	378914	85.2588	ng	88
59) Diphenyl Ether	7.834	170	354669	83.1229	ng	75
60) 2-Nitroaniline	7.850	65	199166	99.4460	ng	47
61) Coumarin	8.032	146	1869m	0.7857	ng	
62) Acenaphthylene	8.128	152	855456	96.0041	ng	100
63) Dimethylphthalate	7.989	163	445461	67.4076	ng	99
64) 2,6-Dinitrotoluene	8.048	165	137902	96.0017	ng	66
65) Acenaphthene	8.278	153	536805	92.0192	ng	99
66) 3-Nitroaniline	8.203	138	176310	109.3380	ng	75
68) Dibenzofuran	8.433	168	786178	97.8295	ng	85
69) 2,4-Dinitrotoluene	8.406	165	187476	88.3568	ng	65
72) Fluorene	8.759	166	618717	92.1284	ng	98
73) 4-Chlorophenyl-phenyle...	8.748	204	286493	91.8257	ng	82
74) Diethylphthalate	8.620	149	604774	88.1787	ng	98
75) 4-Nitroaniline	8.764	138	179610	90.5328	ng	75
76) Atrazine	9.389	200	168882	99.7345	ng	96
79) n-Nitrosodiphenylamine	8.855	169	446566	78.0479	ng	97
81) 1,2-Diphenylhydrazine	8.903	77	705005	102.5771	ng	81
82) 4-Bromophenyl-phenylether	9.234	248	172505	96.2201	ng	83
83) Hexachlorobenzene	9.298	284	180236	95.3606	ng	68

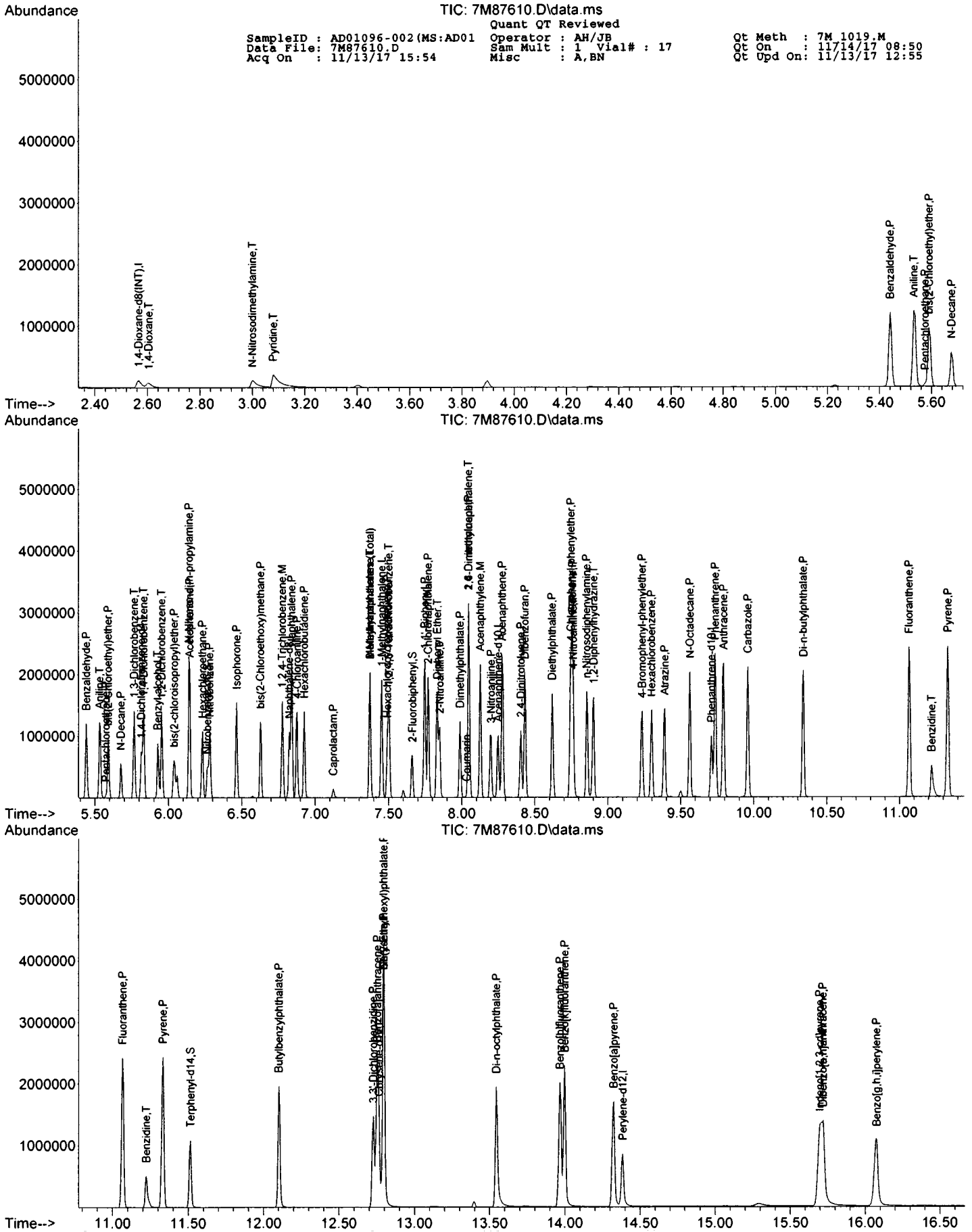
Quantitation Report (QT Reviewed)

SampleID : AD01096-002(MS:AD01 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87610.D Sam Mult : 1 Vial# : 17 Qt On : 11/14/17 08:50
Acq On : 11/13/17 15:54 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
84)	N-Octadecane	9.565	57	349605	92.3057	ng	75
86)	Phenanthrene	9.736	178	911127	91.0665	ng	98
87)	Anthracene	9.795	178	921271	91.8654	ng	100
88)	Carbazole	9.961	167	885397	92.2378	ng	97
89)	Di-n-butylphthalate	10.340	149	1116460	102.3613	ng	97
90)	Fluoranthene	11.066	202	1040709	93.7854	ng	96
92)	Pyrene	11.334	202	1057613	99.7665	ng	91
93)	Benzidine	11.221	184	220671	49.1980	ng	91
97)	Butylbenzylphthalate	12.103	149	488001	96.4257	ng	75
99)	3,3'-Dichlorobenzidine	12.728	252	331857	117.3194	ng	97
100)	Benzo[a]anthracene	12.755	228	965305	96.6805	ng	99
101)	Chrysene	12.797	228	864789m	93.1992	ng	
102)	bis(2-Ethylhexyl)phtha...	12.797	149	661947	107.2992	ng	93
104)	Di-n-octylphthalate	13.545	149	1142924	105.0723	ng	100
105)	Benzo[b]fluoranthene	13.967	252	902082m	102.6774	ng	
106)	Benzo[k]fluoranthene	13.999	252	931451	105.1172	ng	95
107)	Benzo[a]pyrene	14.325	252	810666	94.7541	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.698	276	911554	102.4435	ng	90
109)	Dibenzo[a,h]anthracene	15.719	278	745854	101.3393	ng	92
110)	Benzo[g,h,i]perylene	16.077	276	717413	94.5416	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87610.D\data.ms
Quant QT Reviewed
SampleID : AD01096-002(MS:AD01
Data File: 7M87610.D
Acq On : 11/13/17 15:54
Operator : AH/JB
Sam Mult : 1 Vial# : 17
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:50
Qt Upd On: 11/13/17 12:55
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-003(MSD:AD
Client Id: LMW-19 MSD
Data File: 7M87611.D
Analysis Date: 11/13/17 16:18
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 1ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	**1,4-Dioxane**	**0.50**	**30**				

Worksheet #: 444671 *Total Target Concentration* 30 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 usea
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Quantitation Report (QT Reviewed)

7111017 0091

SampleID : AD01096-003(MSD:AD0 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87611.D Sam Mult : 1 Vial# : 18 Qt On : 11/14/17 08:52
Acq On : 11/13/17 16:18 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	55888	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	100296	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	383224	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	219669	40.00	ng	-0.01
77) Phenanthrene-d10	9.715	188	388728	40.00	ng	0.00
91) Chrysene-d12	12.765	240	380101	40.00	ng	0.00
103) Perylene-d12	14.389	264	336967	40.00	ng	-0.02
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	6.264	128	72627	47.04	ng	0.00
Spiked Amount 50.000			Recovery = 94.08%			
55) 2-Fluorobiphenyl	7.663	172	252451	36.96	ng	-0.01
Spiked Amount 50.000			Recovery = 73.92%			
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
94) Terphenyl-d14	11.515	244	344259	58.57	ng	0.00
Spiked Amount 50.000			Recovery = 117.14%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	43601	30.2336	ng	98
9) Pyridine	3.080	79	179932	45.5314	ng	70
10) N-Nitrosodimethylamine	3.000	74	89717	38.1791	ng	72
12) Benzaldehyde	5.441	77	222243	132.1508	ng	76
13) Aniline	5.537	93	470643	93.0443	ng	44
14) Pentachloroethane	5.580	117	4834	4.2841	ng	90
15) bis(2-Chloroethyl)ether	5.591	93	281492	74.4438	ng	81
19) N-Decane	5.676	57	156072	47.3259	ng	93
20) 1,3-Dichlorobenzene	5.767	146	146864	40.3851	ng	97
22) 1,4-Dichlorobenzene	5.831	146	155618	43.4694	ng	98
23) 1,2-Dichlorobenzene	5.954	146	166969	48.4920	ng	96
24) Benzyl alcohol	5.927	108	132111	57.3032	ng	73
25) bis(2-chloroisopropyl)...	6.039	45	267098	62.4460	ng	98
27) Acetophenone	6.146	105	393290	79.0657	ng	57
28) Hexachloroethane	6.232	117	59390	42.5134	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	190244	83.8999	ng	85
33) Nitrobenzene	6.280	77	293561	85.7705	ng	80
34) Isophorone	6.467	82	548256	85.8543	ng	86
38) bis(2-Chloroethoxy)met...	6.632	93	355840	88.2295	ng	98
40) 1,2,4-Trichlorobenzene	6.782	180	216266	77.0946	ng	96
41) Naphthalene	6.841	128	753564	73.6040	ng	99
42) 4-Chloroaniline	6.878	127	399421m	145.4196	ng	
43) Hexachlorobutadiene	6.932	225	99810	69.5742	ng	97
44) Caprolactam	7.129	113	17554	14.6959	ng	62
46) 2-Methylnaphthalene	7.375	142	591740	89.2712	ng	99
47) 1-Methylnaphthalene	7.455	142	529271	83.4009	ng	91
48) Methylnaphthalenes (To...	7.375	142	1123764m	173.2661	ng	
49) 1,1'-Biphenyl	7.749	154	679658	87.2643	ng	96
51) 1,2,4,5-Tetrachloroben...	7.508	216	238764	86.2859	ng	98
52) Hexachlorocyclopentadiene	7.498	237	121345	78.1912	ng	96
56) 2-Chloronaphthalene	7.776	162	532589	91.0001	ng	91
57) 1,4-Dimethylnaphthalene	8.053	156	407561	89.8076	ng	86
59) Diphenyl Ether	7.834	170	382392	87.7665	ng	79
60) 2-Nitroaniline	7.850	65	210950	103.1510	ng	55
62) Acenaphthylene	8.128	152	899128	98.8179	ng	100
63) Dimethylphthalate	7.989	163	252454	37.4114	ng	99
64) 2,6-Dinitrotoluene	8.053	165	152759	104.1447	ng	60
65) Acenaphthene	8.283	153	562996	94.5126	ng	98
66) 3-Nitroaniline	8.203	138	190129	115.8602	ng	78
68) Dibenzofuran	8.438	168	846723	103.2628	ng	83
69) 2,4-Dinitrotoluene	8.411	165	195843	90.3226	ng	59
72) Fluorene	8.759	166	647016	94.3493	ng	97
73) 4-Chlorophenyl-phenyle...	8.748	204	303919	95.3960	ng	84
74) Diethylphthalate	8.625	149	581057	82.9682	ng	97
75) 4-Nitroaniline	8.769	138	194050	95.5584	ng	73
76) Atrazine	9.389	200	177732	102.7898	ng	93
79) n-Nitrosodiphenylamine	8.860	169	481137	82.2705	ng	97
81) 1,2-Diphenylhydrazine	8.903	77	673935	95.9348	ng	84
82) 4-Bromophenyl-phenylether	9.234	248	183884	100.3479	ng	84
83) Hexachlorobenzene	9.303	284	189813	98.2547	ng	64
84) N-Octadecane	9.565	57	371634	95.9988	ng	77

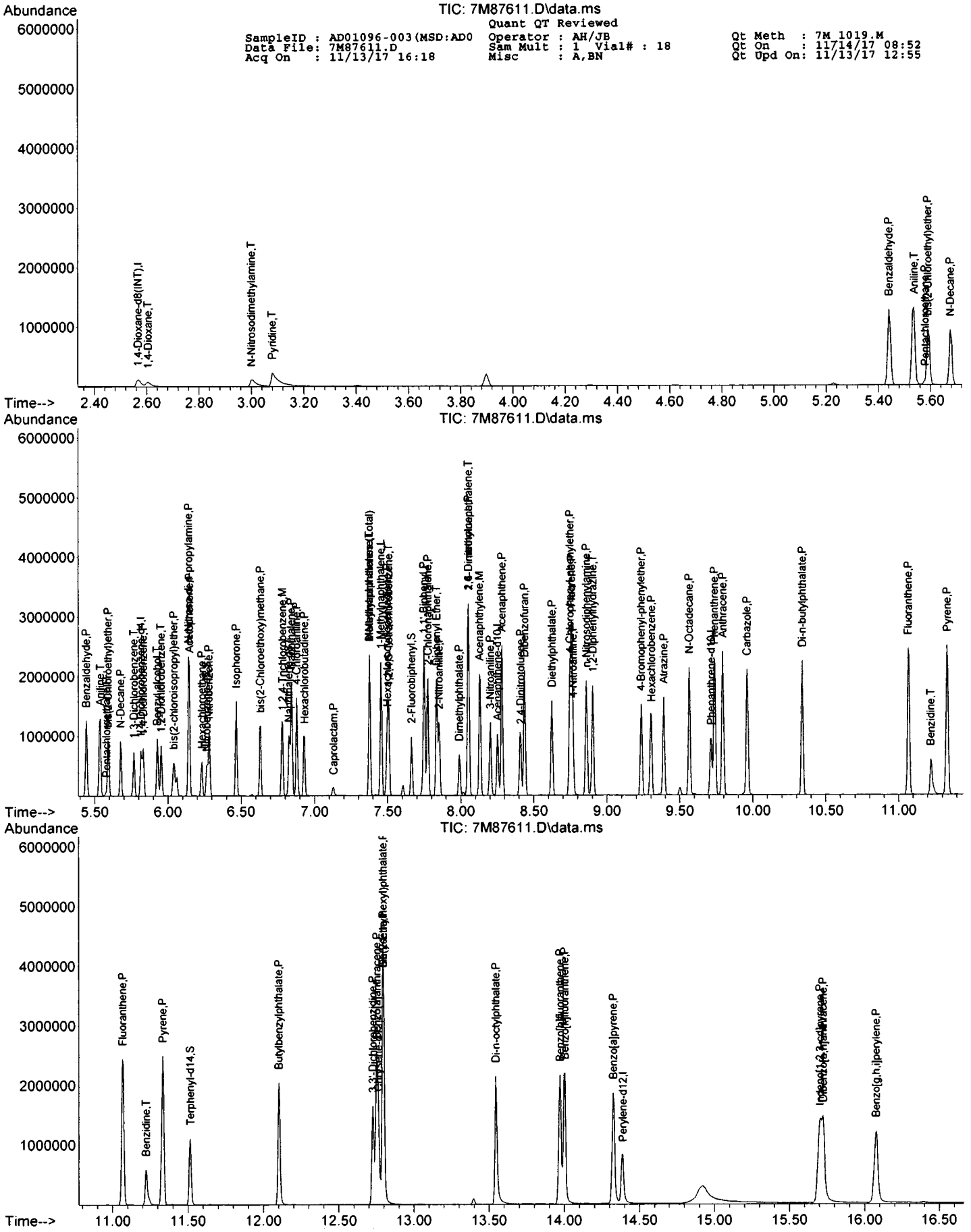
Quantitation Report (QT Reviewed)

SampleID : AD01096-003(MSD:AD0 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87611.D Sam Mult : 1 Vial# : 18 Qt On : 11/14/17 08:52
Acq On : 11/13/17 16:18 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86)	Phenanthrene	9.736	178	959976	93.8729	ng	99
87)	Anthracene	9.795	178	964427	94.0879	ng	100
88)	Carbazole	9.961	167	932310	95.0235	ng	98
89)	Di-n-butylphthalate	10.340	149	1171377	105.0725	ng	98
90)	Fluoranthene	11.066	202	1096655	96.6888	ng	97
92)	Pyrene	11.334	202	1106445	104.5550	ng	92
93)	Benzidine	11.221	184	265387	59.6545	ng	93
97)	Butylbenzylphthalate	12.103	149	521431	102.7247	ng	74
99)	3,3'-Dichlorobenzidine	12.728	252	362883	129.5935	ng	97
100)	Benzo[a]anthracene	12.755	228	1010812	101.4149	ng	100
101)	Chrysene	12.797	228	916577	98.9527	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.797	149	692483	112.4447	ng	92
104)	Di-n-octylphthalate	13.545	149	1202130	109.2401	ng	100
105)	Benzo[b]fluoranthene	13.973	252	982736m	111.0198	ng	
106)	Benzo[k]fluoranthene	14.005	252	937909m	105.0532	ng	
107)	Benzo[a]pyrene	14.325	252	862303	100.0347	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.704	276	981920	109.5249	ng	89
109)	Dibenzo[a,h]anthracene	15.725	278	794666	107.1627	ng	92
110)	Benzo[g,h,i]perylene	16.077	276	784390	102.5937	ng	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87611.D\data.ms
Quant QT Reviewed
SampleID : AD01096-003(MSD:AD0
Data File: 7M87611.D
Acq On : 11/13/17 16:18
Operator : AH/JB
Sam Mult : 1 Vial# : 18
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:52
Qt Upd On: 11/13/17 12:55
Abundance
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-004
Client Id: LMW-18
Data File: 7M87612.D
Analysis Date: 11/13/17 16:41
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0095

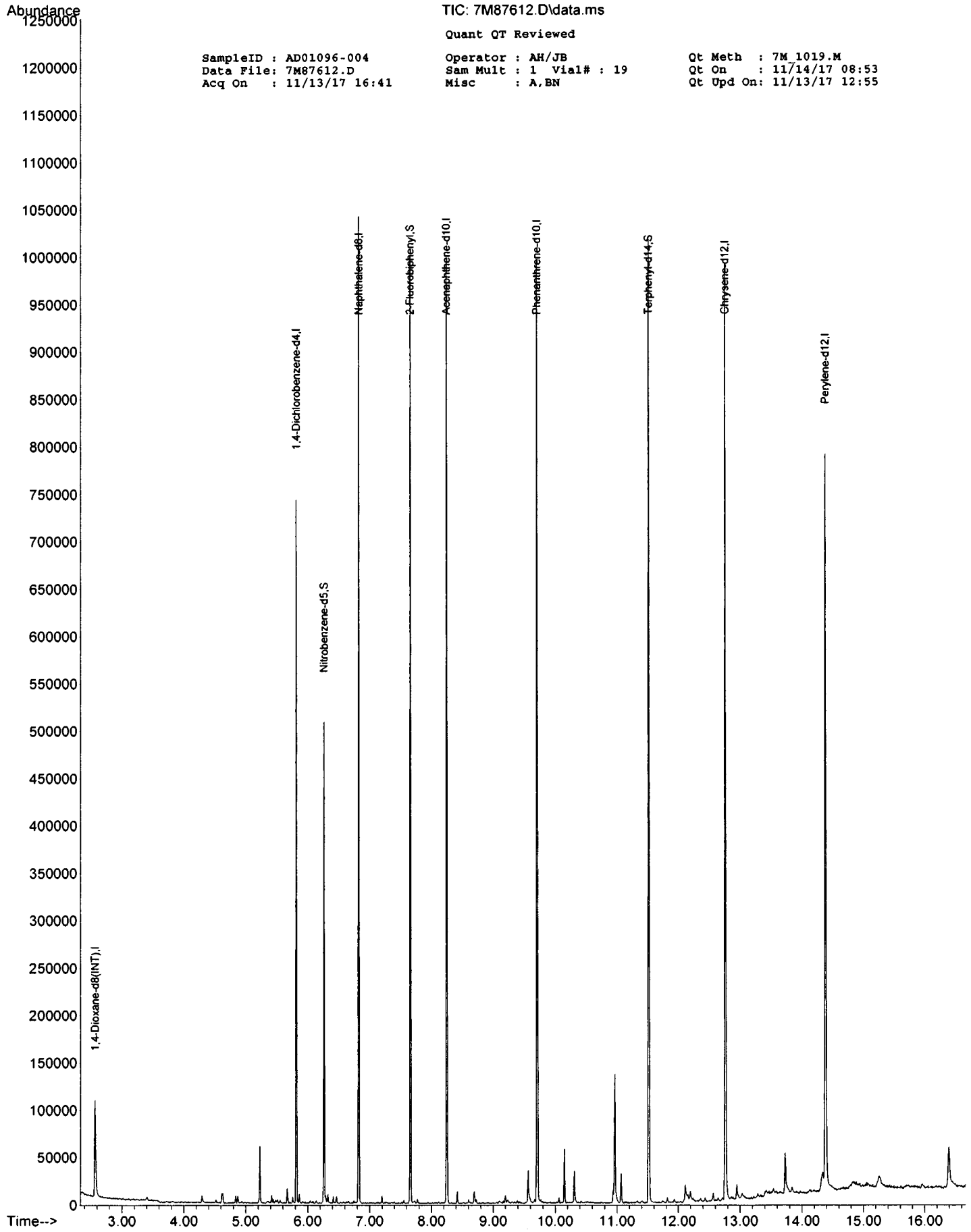
SampleID : AD01096-004 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87612.D Sam Mult : 1 Vial# : 19 Qt On : 11/14/17 08:53
Acq On : 11/13/17 16:41 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	52703	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	96822	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	378154	40.00	ng	0.00
50) Acenaphthene-d10	8.246	164	216235	40.00	ng	-0.02
77) Phenanthrene-d10	9.710	188	378997	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	368244	40.00	ng	-0.01
103) Perylene-d12	14.384	264	318086	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	64428	42.29	ng	0.00
Spiked Amount 50.000			Recovery =	84.58%		
55) 2-Fluorobiphenyl	7.658	172	283027	42.09	ng	-0.02
Spiked Amount 50.000			Recovery =	84.18%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	324129	56.92	ng	0.00
Spiked Amount 50.000			Recovery =	113.84%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87612.D\data.ms
Quant QT Reviewed
SampleID : AD01096-004
Data File: 7M87612.D
Acq On : 11/13/17 16:41
Operator : AH/JB
Sam Mult : 1 Vial# : 19
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:53
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-005
Client Id: LMW-69
Data File: 7M87613.D
Analysis Date: 11/13/17 17:04
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0098

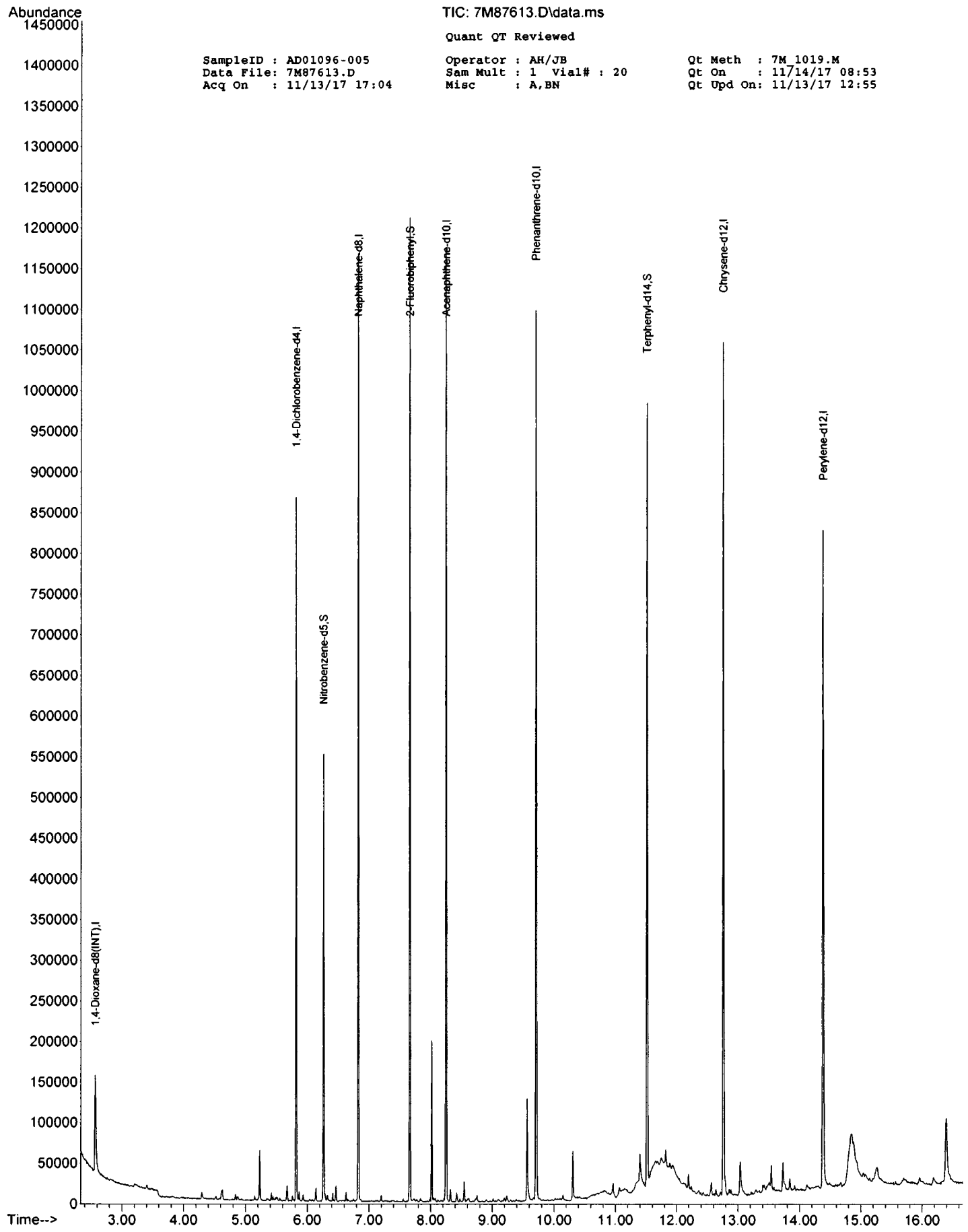
SampleID : AD01096-005 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87613.D Sam Mult : 1 Vial# : 20 Qt On : 11/14/17 08:53
Acq On : 11/13/17 17:04 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	65508	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	111200	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	426258	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	237457	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	408995	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	385740	40.00	ng	-0.01
103) Perylene-d12	14.384	264	336396	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
32) Nitrobenzene-d5	6.264	128	68979	40.17	ng	0.00
Spiked Amount 50.000			Recovery = 80.34%			
55) 2-Fluorobiphenyl	7.664	172	319720	43.30	ng	-0.01
Spiked Amount 50.000			Recovery = 86.60%			
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
94) Terphenyl-d14	11.515	244	307513	51.56	ng	0.00
Spiked Amount 50.000			Recovery = 103.12%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87613.D\data.ms
Quant QT Reviewed
SampleID : AD01096-005
Data File: 7M87613.D
Acq On : 11/13/17 17:04
Operator : AH/JB
Sam Mult : 1 Vial# : 20
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:53
Qt Upd On: 11/13/17 12:55
Abundance
Time-->
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-006
Client Id: LMW-2
Data File: 7M87614.D
Analysis Date: 11/13/17 17:28
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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.

Quantitation Report (QT Reviewed)

7111017 0101

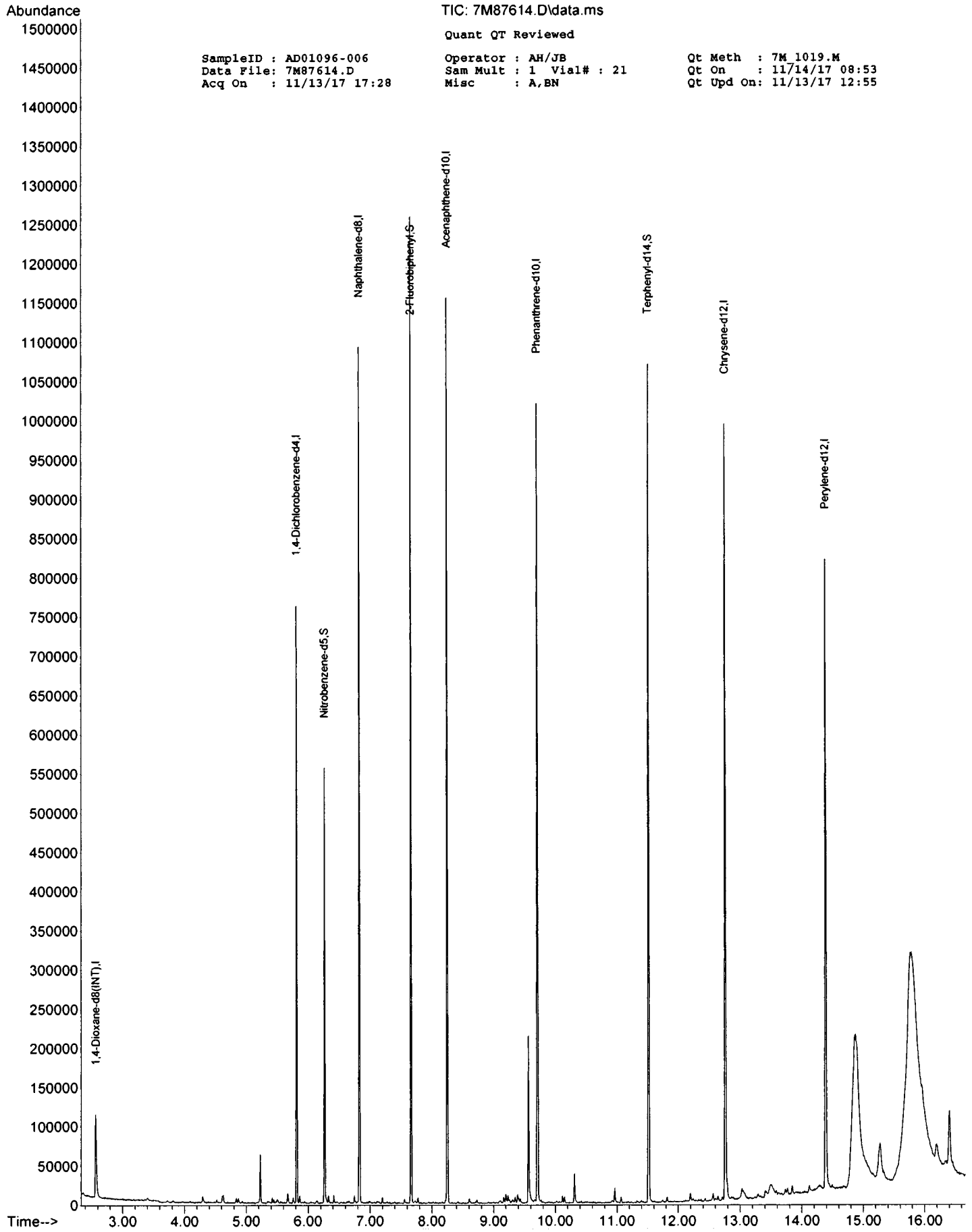
SampleID : AD01096-006 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87614.D Sam Mult : 1 Vial# : 21 Qt On : 11/14/17 08:53
Acq On : 11/13/17 17:28 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	55494	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	101121	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	398571	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	229128	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	396435	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	374986	40.00	ng	-0.01
103) Perylene-d12	14.389	264	316702	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	72213	44.97	ng	0.00
Spiked Amount 50.000			Recovery =	89.94%		
55) 2-Fluorobiphenyl	7.663	172	328503	46.11	ng	-0.01
Spiked Amount 50.000			Recovery =	92.22%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	333866	57.58	ng	0.00
Spiked Amount 50.000			Recovery =	115.16%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87614.D\data.ms
Quant QT Reviewed
SampleID : AD01096-006
Data File: 7M87614.D
Acq On : 11/13/17 17:28
Operator : AH/JB
Sam Mult : 1 Vial# : 21
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:53
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-007
Client Id: LMW-3
Data File: 7M87615.D
Analysis Date: 11/13/17 17:51
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0104

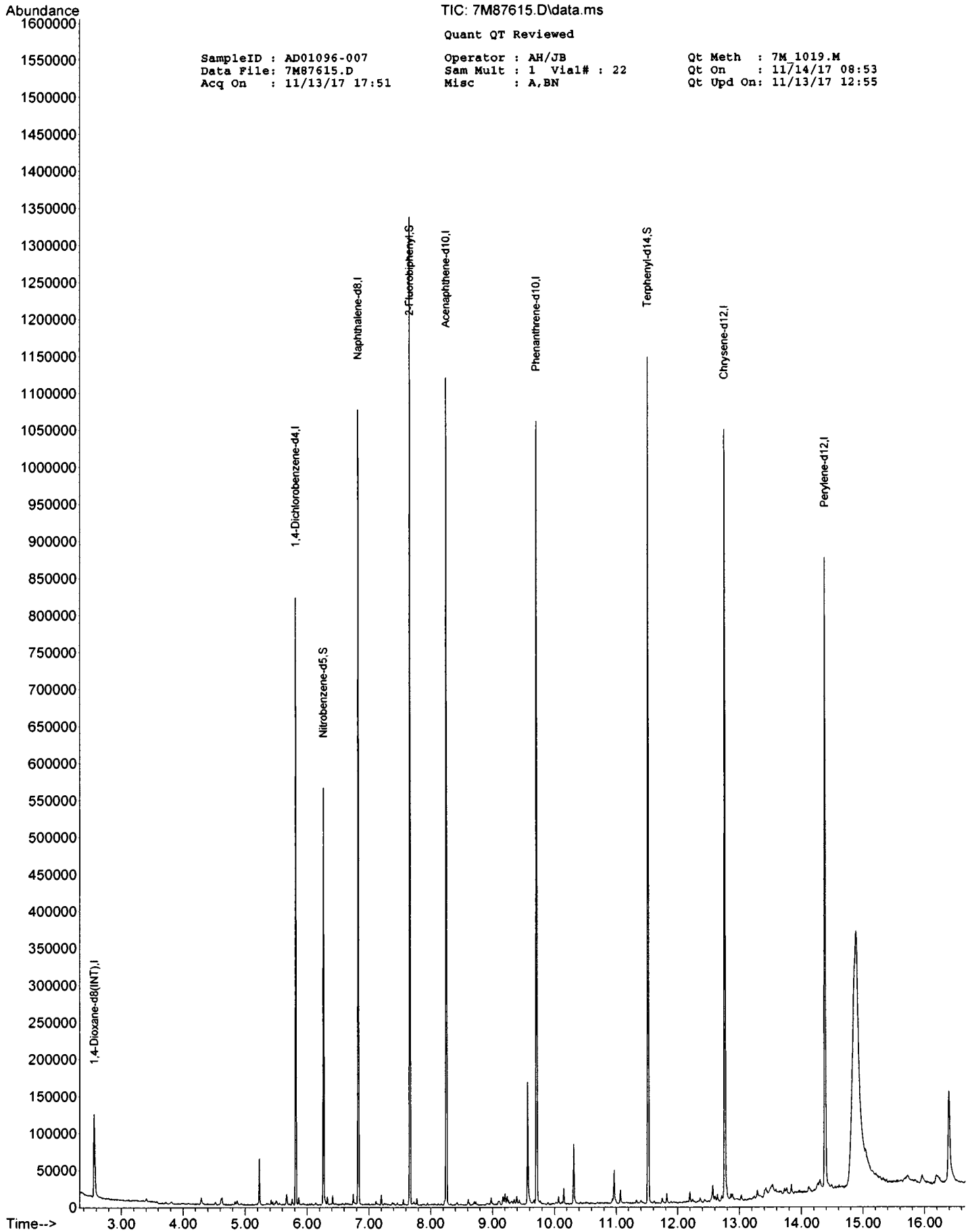
SampleID : AD01096-007 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87615.D Sam Mult : 1 Vial# : 22 Qt On : 11/14/17 08:53
Acq On : 11/13/17 17:51 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	59373	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	108942	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	421234	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	245849	40.00	ng	-0.01
77) Phenanthrene-d10	9.715	188	419473	40.00	ng	0.00
91) Chrysene-d12	12.760	240	396317	40.00	ng	-0.01
103) Perylene-d12	14.384	264	334667	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	75994	44.78	ng	0.00
Spiked Amount 50.000			Recovery =	89.56%		
55) 2-Fluorobiphenyl	7.663	172	362869	47.47	ng	-0.01
Spiked Amount 50.000			Recovery =	94.94%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	355059	57.94	ng	0.00
Spiked Amount 50.000			Recovery =	115.88%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87615.D\data.ms
Quant QT Reviewed
SampleID : AD01096-007
Data File: 7M87615.D
Acq On : 11/13/17 17:51
Operator : AH/JB
Sam Mult : 1 Vial# : 22
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:53
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT).I
1,4-Dichlorobenzene-d4.I
Nitrobenzene-d5.S
Naphthalene-d8.I
2-Fluorobiphenyl.S
Acenaphthene-d10.I
Phenanthrene-d10.I
Terphenyl-d14.S
Chrysene-d12.I
Perylene-d12.I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-008
Client Id: LMW-4
Data File: 7M87616.D
Analysis Date: 11/13/17 18:15
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0107

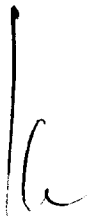
SampleID : AD01096-008 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87616.D Sam Mult : 1 Vial# : 23 Qt On : 11/14/17 08:53
Acq On : 11/13/17 18:15 Misc : A,BN Qt Upd On: 11/13/17 12:55

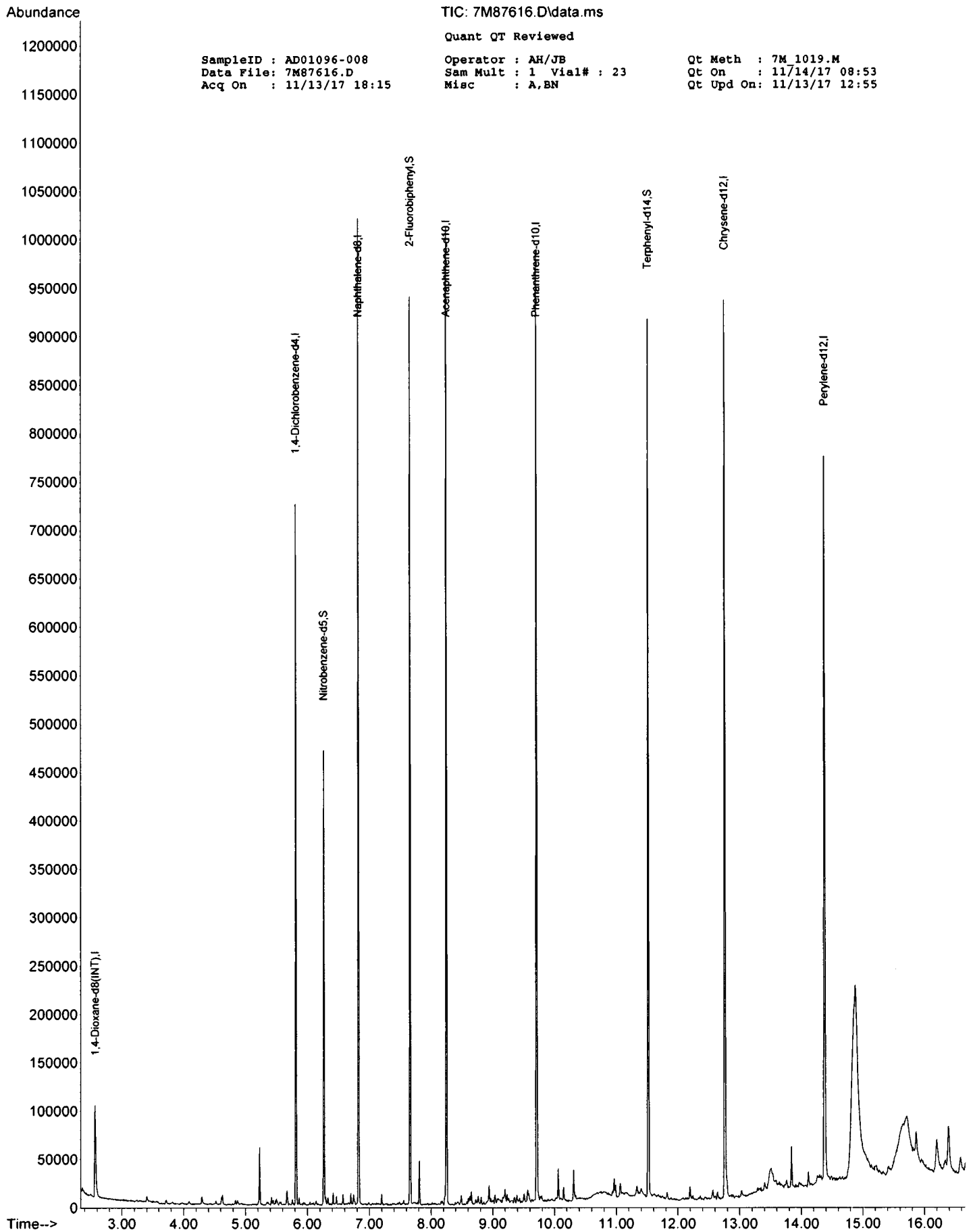
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
7) 1,4-Dioxane-d8(INT)	2.567	96	49894	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	92643	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	371765	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	213893	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	367602	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	352940	40.00	ng	-0.01
103) Perylene-d12	14.384	264	300707	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
32) Nitrobenzene-d5	6.264	128	58783	39.25	ng	0.00
Spiked Amount 50.000			Recovery = 78.50%			
55) 2-Fluorobiphenyl	7.663	172	278501	41.87	ng	-0.01
Spiked Amount 50.000			Recovery = 83.74%			
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
94) Terphenyl-d14	11.515	244	273060	50.03	ng	0.00
Spiked Amount 50.000			Recovery = 100.06%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87616.D\data.ms
Quant QT Reviewed
SampleID : AD01096-008
Data File: 7M87616.D
Acq On : 11/13/17 18:15
Operator : AH/JB
Sam Mult : 1 Vial# : 23
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:53
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-009
Client Id: LMW-5
Data File: 7M87617.D
Analysis Date: 11/13/17 18:38
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0110

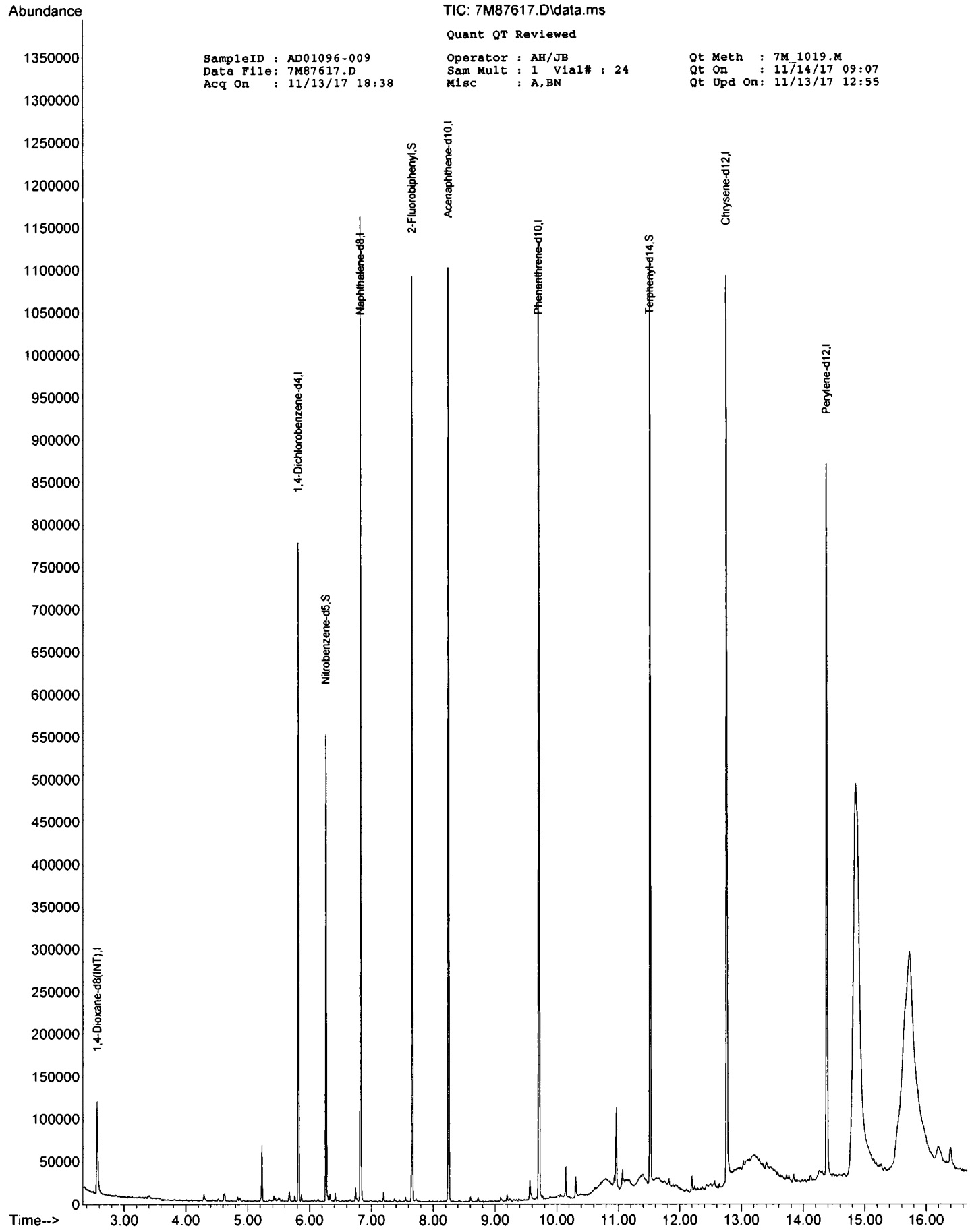
SampleID : AD01096-009 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87617.D Sam Mult : 1 Vial# : 24 Qt On : 11/14/17 09:07
Acq On : 11/13/17 18:38 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	56757	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	105789	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	422609	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	246555	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	428617	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	392790	40.00	ng	-0.01
103) Perylene-d12	14.384	264	345089	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	74814	43.94	ng	0.00
Spiked Amount 50.000			Recovery =	87.88%		
55) 2-Fluorobiphenyl	7.663	172	330583	43.12	ng	-0.01
Spiked Amount 50.000			Recovery =	86.24%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	334820	55.13	ng	0.00
Spiked Amount 50.000			Recovery =	110.26%		

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87617.D\data.ms
Quant QT Reviewed
SampleID : AD01096-009
Data File: 7M87617.D
Acq On : 11/13/17 18:38
Operator : AH/JB
Sam Mult : 1 Vial# : 24
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:07
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-010
Client Id: LMW-6
Data File: 7M87618.D
Analysis Date: 11/13/17 19:01
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671 *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 usea
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Quantitation Report (QT Reviewed)

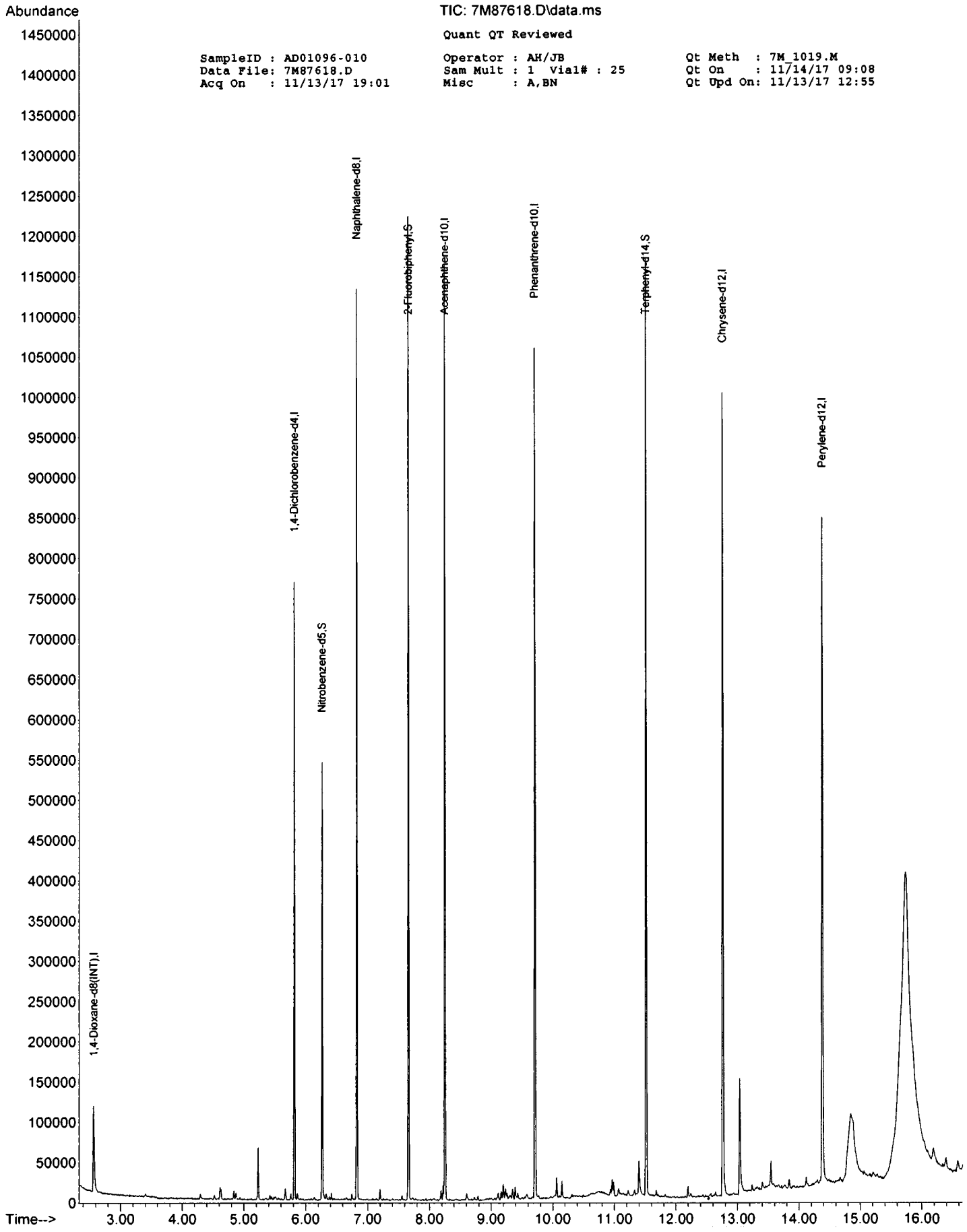
7111017 0113

SampleID : AD01096-010 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87618.D Sam Mult : 1 Vial# : 25 Qt On : 11/14/17 09:08
Acq On : 11/13/17 19:01 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	53839	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	103622	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	401827	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	231865	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	402297	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	391039	40.00	ng	-0.01
103) Perylene-d12	14.384	264	336528	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
32) Nitrobenzene-d5	6.264	128	71624	44.24	ng	0.00
Spiked Amount 50.000			Recovery = 88.48%			
55) 2-Fluorobiphenyl	7.663	172	327898	45.48	ng	-0.01
Spiked Amount 50.000			Recovery = 90.96%			
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
94) Terphenyl-d14	11.515	244	350376	57.95	ng	0.00
Spiked Amount 50.000			Recovery = 115.90%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87618.D\data.ms
Quant QT Reviewed
SampleID : AD01096-010
Data File: 7M87618.D
Acq On : 11/13/17 19:01
Operator : AH/JB
Sam Mult : 1 Vial# : 25
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:08
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-011
Client Id: LMW-10
Data File: 7M87619.D
Analysis Date: 11/13/17 19:25
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 usea

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

7111017 0116

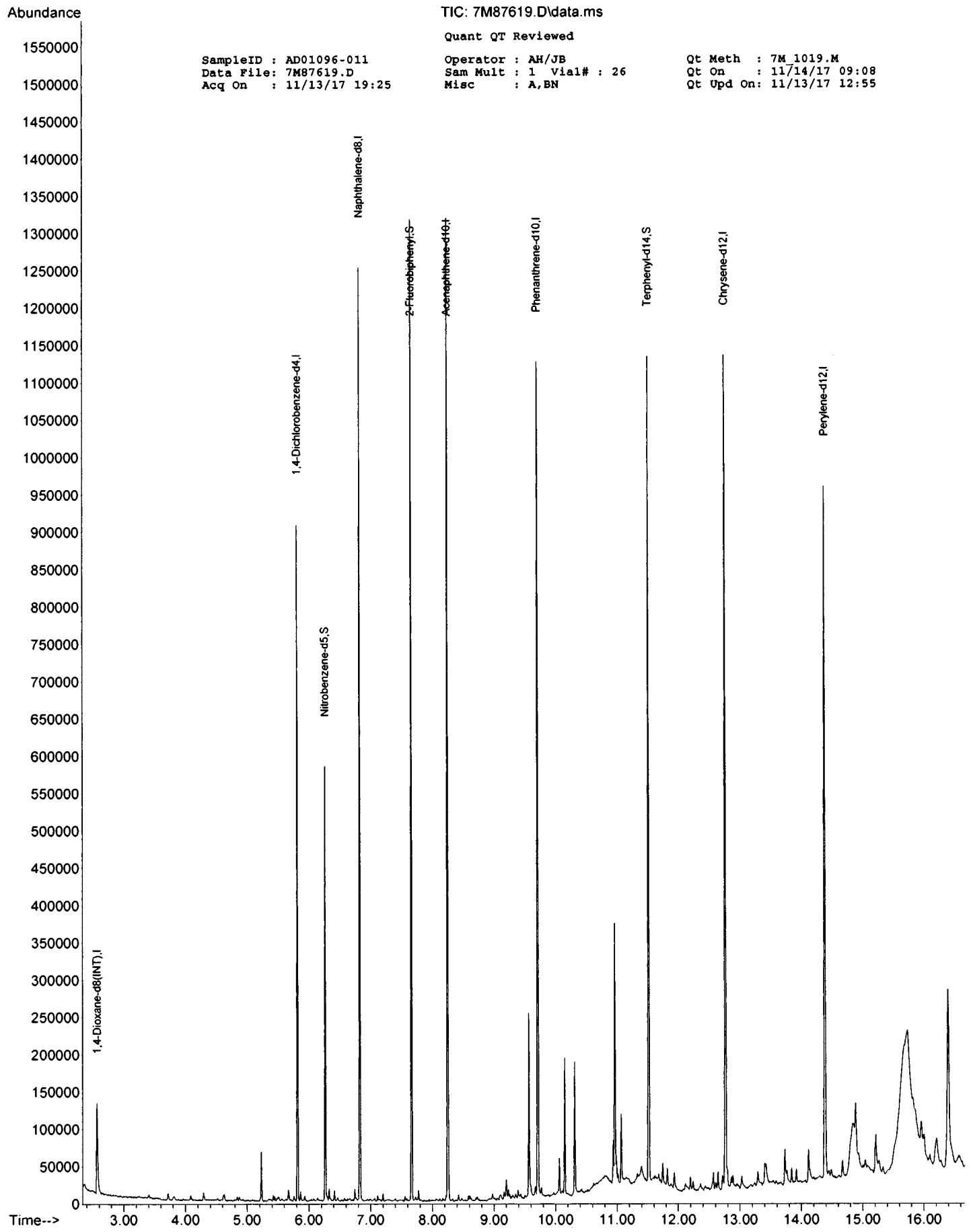
SampleID : AD01096-011 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87619.D Sam Mult : 1 Vial# : 26 Qt On : 11/14/17 09:08
Acq On : 11/13/17 19:25 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	63780	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	119563	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	464680	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	272441	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	457354	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	421677	40.00	ng	-0.01
103) Perylene-d12	14.384	264	373105	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
32) Nitrobenzene-d5	6.264	128	75456	40.30	ng	0.00
Spiked Amount 50.000			Recovery = 80.60%			
55) 2-Fluorobiphenyl	7.664	172	344414	40.66	ng	-0.01
Spiked Amount 50.000			Recovery = 81.32%			
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery = 0.00%			
94) Terphenyl-d14	11.515	244	325400	49.90	ng	0.00
Spiked Amount 50.000			Recovery = 99.80%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87619.D\data.ms
Quant QT Reviewed
SampleID : AD01096-011
Data File: 7M87619.D
Acq On : 11/13/17 19:25
Operator : AH/JB
Sam Mult : 1 Vial# : 26
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:08
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-012
Client Id: LMW-16
Data File: 7M87620.D
Analysis Date: 11/13/17 19:48
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0119

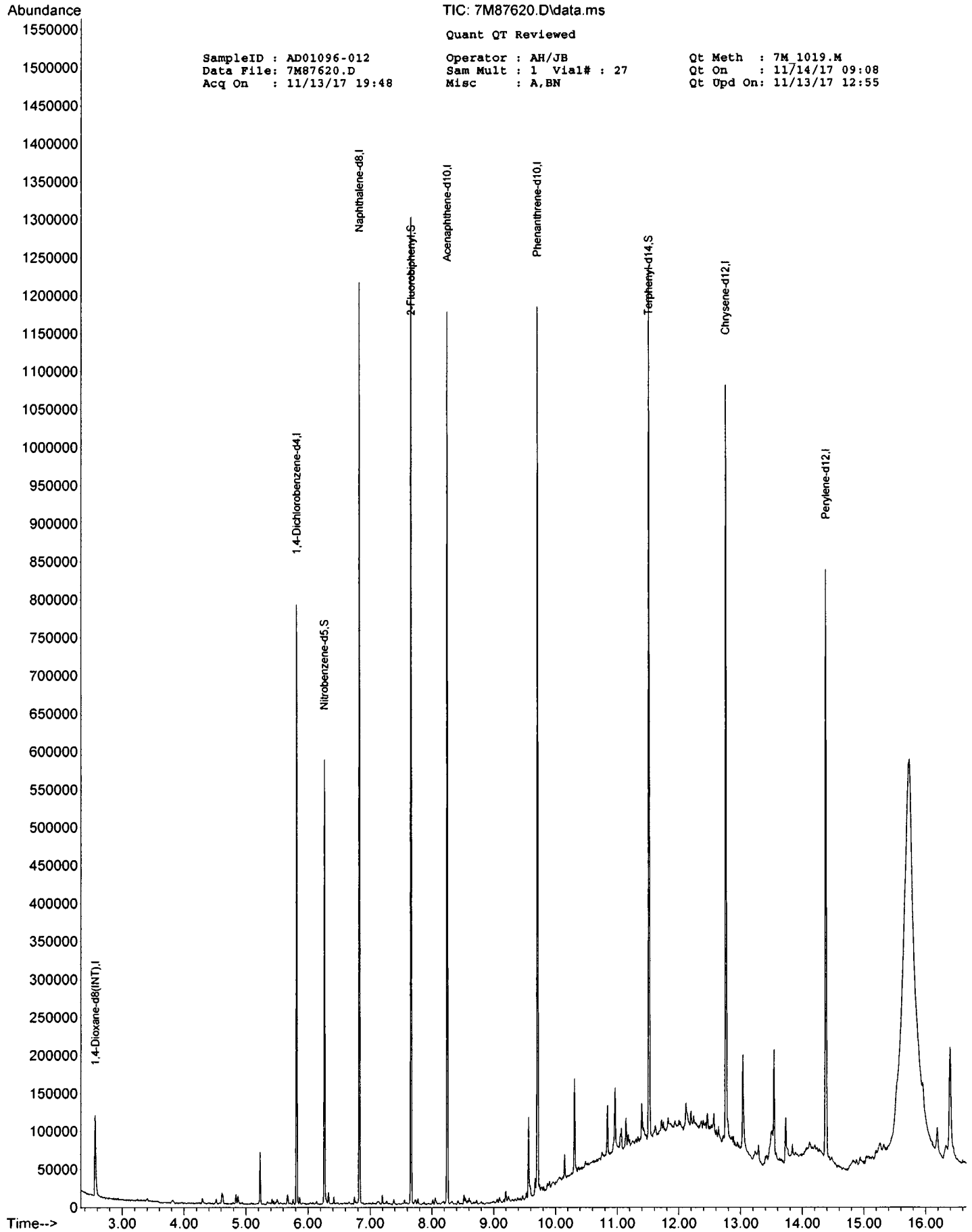
SampleID : AD01096-012 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87620.D Sam Mult : 1 Vial# : 27 Qt On : 11/14/17 09:08
Acq On : 11/13/17 19:48 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	56705	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	110051	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	432365	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	252663	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	431561	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	381455	40.00	ng	-0.01
103) Perylene-d12	14.384	264	318151	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	79778	45.80	ng	0.00
Spiked Amount 50.000			Recovery =	91.60%		
55) 2-Fluorobiphenyl	7.663	172	373209	47.50	ng	-0.01
Spiked Amount 50.000			Recovery =	95.00%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	351881	59.66	ng	0.00
Spiked Amount 50.000			Recovery =	119.32%		

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87620.D\data.ms
Quant QT Reviewed
SampleID : AD01096-012
Data File: 7M87620.D
Acq On : 11/13/17 19:48
Operator : AH/JB
Sam Mult : 1 Vial# : 27
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:08
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-013
Client Id: LMW-20
Data File: 7M87621.D
Analysis Date: 11/13/17 20:12
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0122

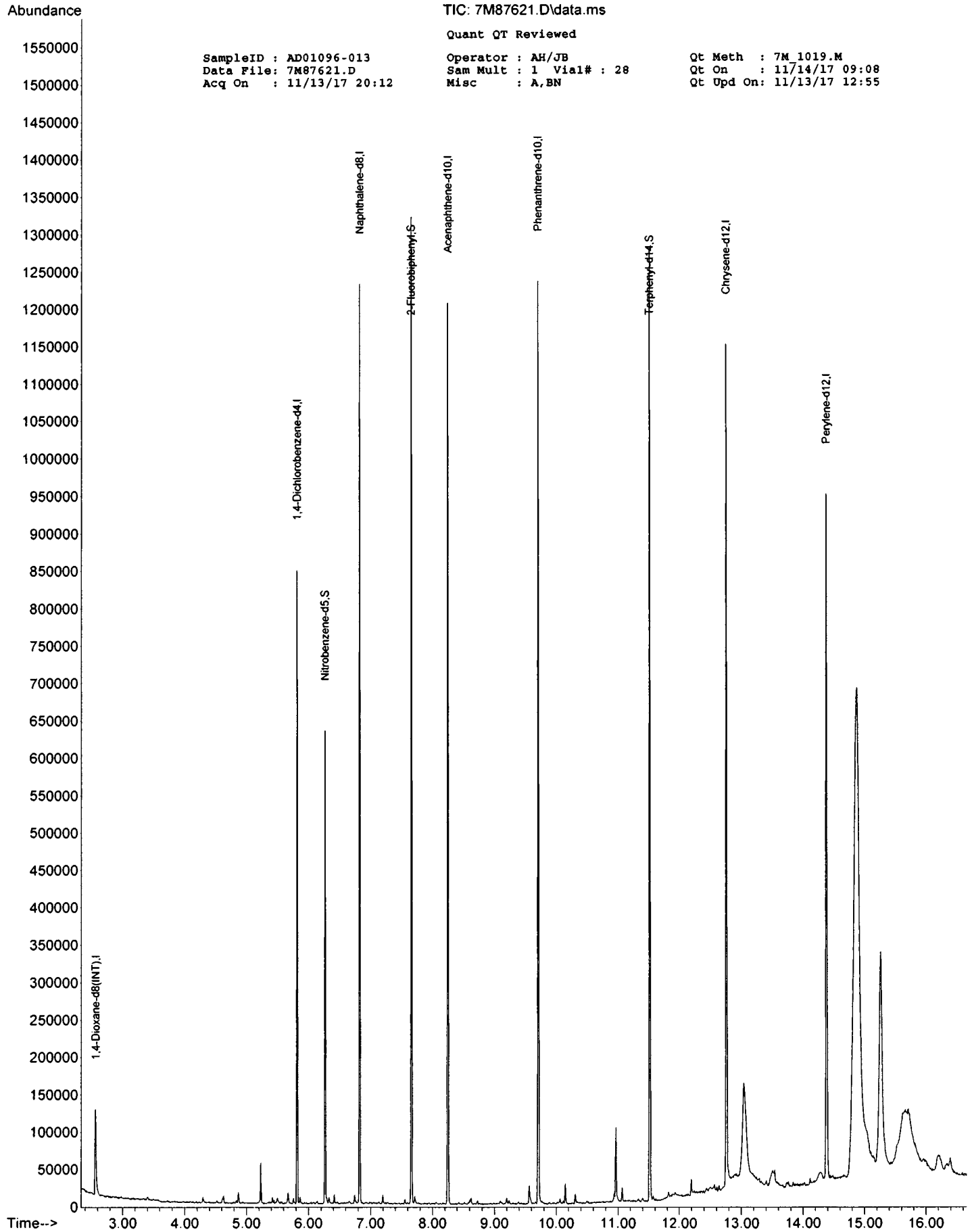
SampleID : AD01096-013 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87621.D Sam Mult : 1 Vial# : 28 Qt On : 11/14/17 09:08
Acq On : 11/13/17 20:12 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	60547	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	115691	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	454890	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	265555	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	462689	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	424209	40.00	ng	-0.01
103) Perylene-d12	14.384	264	362154	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	84258	45.97	ng	0.00
Spiked Amount 50.000			Recovery =	91.94%		
55) 2-Fluorobiphenyl	7.658	172	380977	46.14	ng	-0.02
Spiked Amount 50.000			Recovery =	92.28%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	387235	59.03	ng	0.00
Spiked Amount 50.000			Recovery =	118.06%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87621.D\data.ms
Quant QT Reviewed
SampleID : AD01096-013
Data File: 7M87621.D
Acq On : 11/13/17 20:12
Operator : AH/JB
Sam Mult : 1 Vial# : 28
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:08
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-014
Client Id: LMW-21
Data File: 7M87622.D
Analysis Date: 11/13/17 20:35
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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.

Quantitation Report (QT Reviewed)

7111017 0125

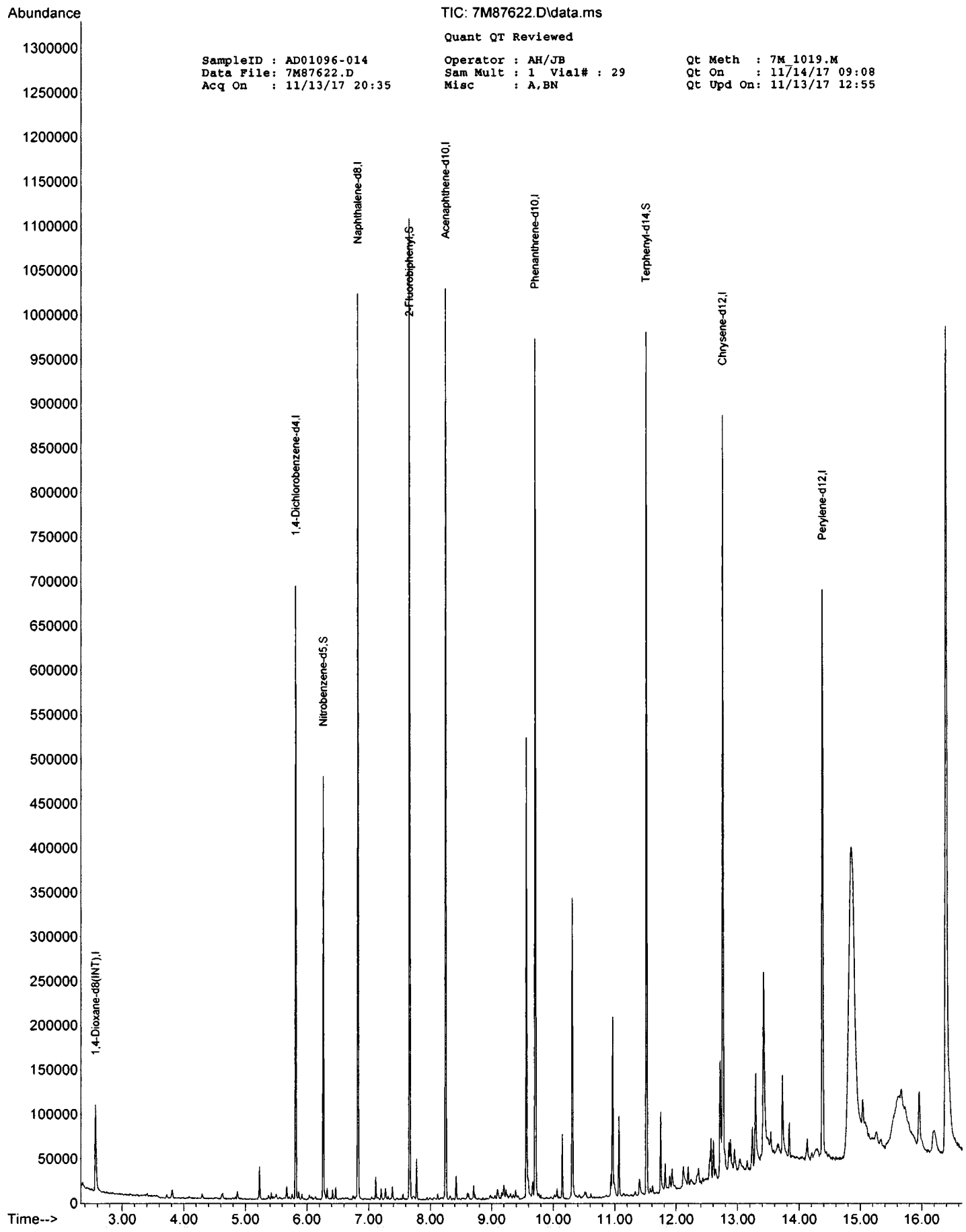
SampleID : AD01096-014 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87622.D Sam Mult : 1 Vial# : 29 Qt On : 11/14/17 09:08
Acq On : 11/13/17 20:35 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	49333	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	94334	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	367935	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	211138	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	355762	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	314320	40.00	ng	-0.01
103) Perylene-d12	14.384	264	275427	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	63203	42.64	ng	0.00
Spiked Amount 50.000			Recovery =	85.28%		
55) 2-Fluorobiphenyl	7.663	172	301171	45.87	ng	-0.01
Spiked Amount 50.000			Recovery =	91.74%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	295902	60.88	ng	0.00
Spiked Amount 50.000			Recovery =	121.76%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87622.D\data.ms
Quant QT Reviewed
SampleID : AD01096-014
Data File: 7M87622.D
Acq On : 11/13/17 20:35
Operator : AH/JB
Sam Mult : 1 Vial# : 29
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:08
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-015(5X)
Client Id: LMW-12
Data File: 10M66020.D
Analysis Date: 11/13/17 16:01
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 5
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	1.2	U				

Worksheet #: 444671

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.

Quantitation Report (QT Reviewed)

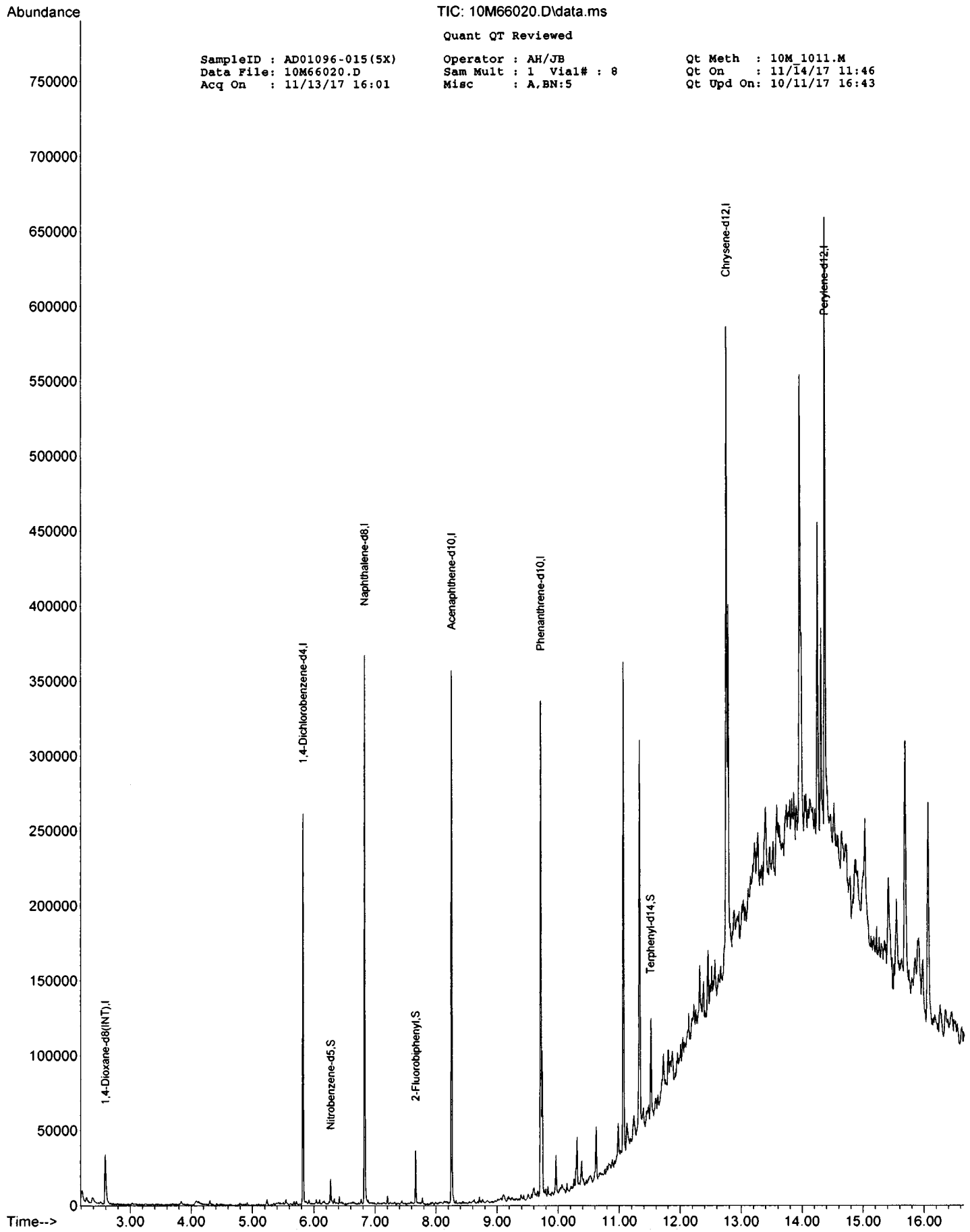
7111017 0128

SampleID : AD01096-015(5X) Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66020.D Sam Mult : 1 Vial# : 8 Qt On : 11/14/17 11:46
Acq On : 11/13/17 16:01 Misc : A,BN:5 Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	15893	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.824	152	33254	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	129158	40.00	ng	-0.01
50) Acenaphthene-d10	8.258	164	75785	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	127072	40.00	ng	0.00
91) Chrysene-d12	12.756	240	149370	40.00	ng	-0.01
103) Perylene-d12	14.376	264	161806	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	0	0.00	ng	
Spiked Amount 100.000			Recovery	=	0.00%	
32) Nitrobenzene-d5	6.273	128	1855	3.69	ng	0.00
Spiked Amount 50.000			Recovery	=	7.38%	
55) 2-Fluorobiphenyl	7.664	172	10561	4.45	ng	-0.01
Spiked Amount 50.000			Recovery	=	8.90%	
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery	=	0.00%	
94) Terphenyl-d14	11.509	244	10902	4.77	ng	-0.01
Spiked Amount 50.000			Recovery	=	9.54%	
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M66020.D\data.ms
Quant QT Reviewed
SampleID : AD01096-015(5X)
Data File: 10M66020.D
Acq On : 11/13/17 16:01
Operator : AH/JB
Sam Mult : 1 Vial# : 8
Misc : A,BN:5
Qt Meth : 10M_1011.M
Qt On : 11/14/17 11:46
Qt Upd On: 10/11/17 16:43
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Chrysene-d12,I
Perylene-d12,I
Nitrobenzene-d5,S
2-Fluorobiphenyl,S
Terphenyl-d14,S
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-015(5X)(R)
Client Id: LMW-12
Data File: 10M66066.D
Analysis Date: 11/15/17 21:12
Date Rec/Extracted: 11/10/17-11/15/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 5
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	1.2	U				

Worksheet #: 444671 *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 usea
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Quantitation Report (QT Reviewed)

7111017 0131

SampleID : AD01096-015(5X)(R) Operator : AH/JB Qt Meth : 10M_1011M
Data File: 10M66066.D Sam Mult : 1 Vial# : 29 Qt On : 11/16/17 12:41
Acq On : 11/15/17 21:12 Misc : A,BN:5 Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.583	96	41525	40.00	ng	-0.02
21) 1,4-Dichlorobenzene-d4	5.824	152	89323	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	333457	40.00	ng	-0.01
50) Acenaphthene-d10	8.258	164	207365	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	352644	40.00	ng	0.00
91) Chrysene-d12	12.761	240	382960	40.00	ng	0.00
103) Perylene-d12	14.382	264	375773	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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.273	128	4695	3.62	ng	0.00
Spiked Amount 50.000			Recovery =	7.24%		
55) 2-Fluorobiphenyl	7.664	172	29093	4.48	ng	-0.01
Spiked Amount 50.000			Recovery =	8.96%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	31693	5.41	ng	0.00
Spiked Amount 50.000			Recovery =	10.82%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Abundance

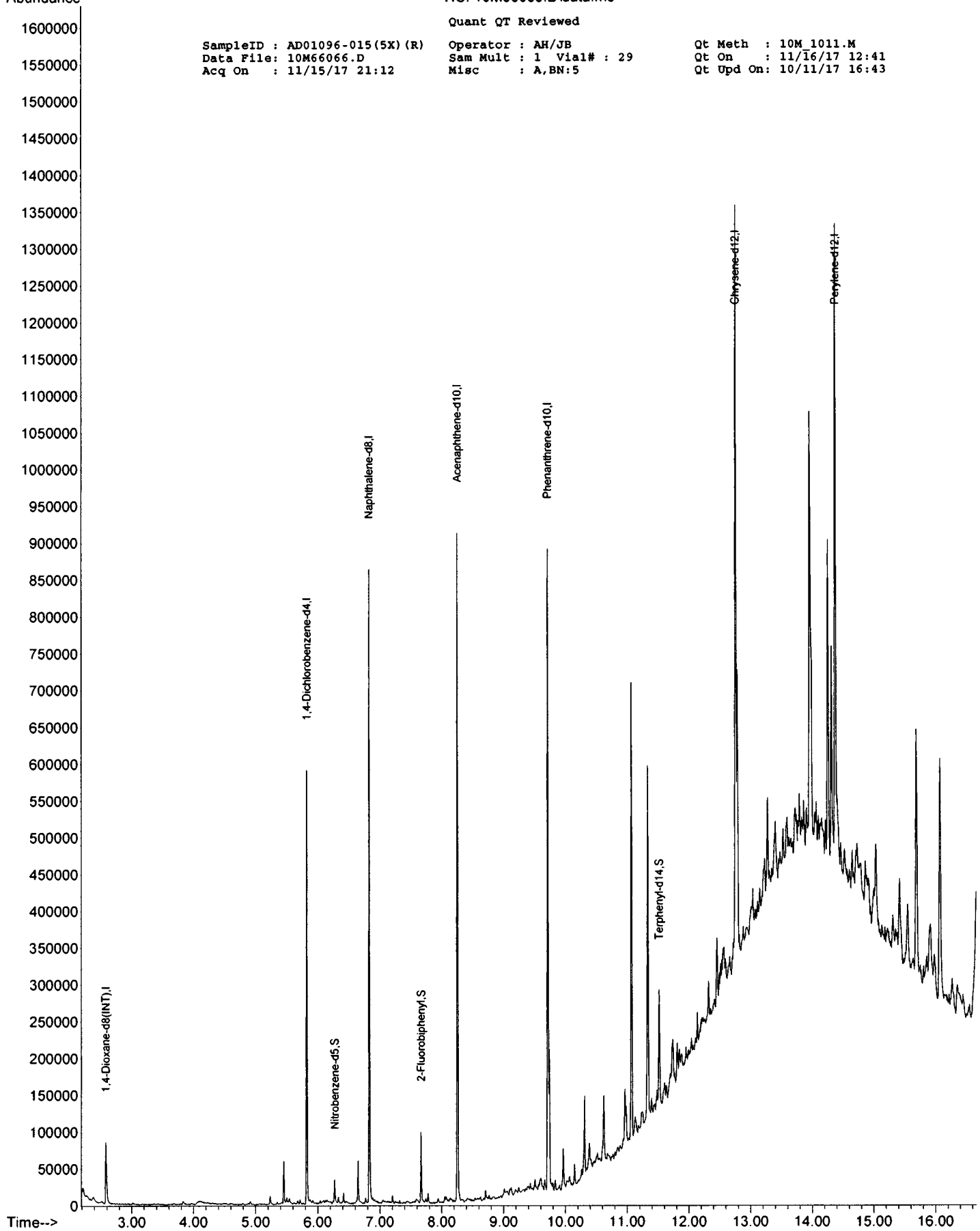
TIC: 10M66066.D\data.ms

Quant QT Reviewed

SampleID : AD01096-015(5X)(R)
Data File: 10M66066.D
Acq On : 11/15/17 21:12

Operator : AH/JB
Sam Mult : 1 Vial# : 29
Misc : A,BN:5

Qt Meth : 10M_1011.M
Qt On : 11/16/17 12:41
Qt Upd On: 10/11/17 16:43



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-016
Client Id: LMW-14
Data File: 10M66021.D
Analysis Date: 11/13/17 16:23
Date Rec/Extracted: 11/10/17-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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 usea

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

Quantitation Report (QT Reviewed)

7111017 0134

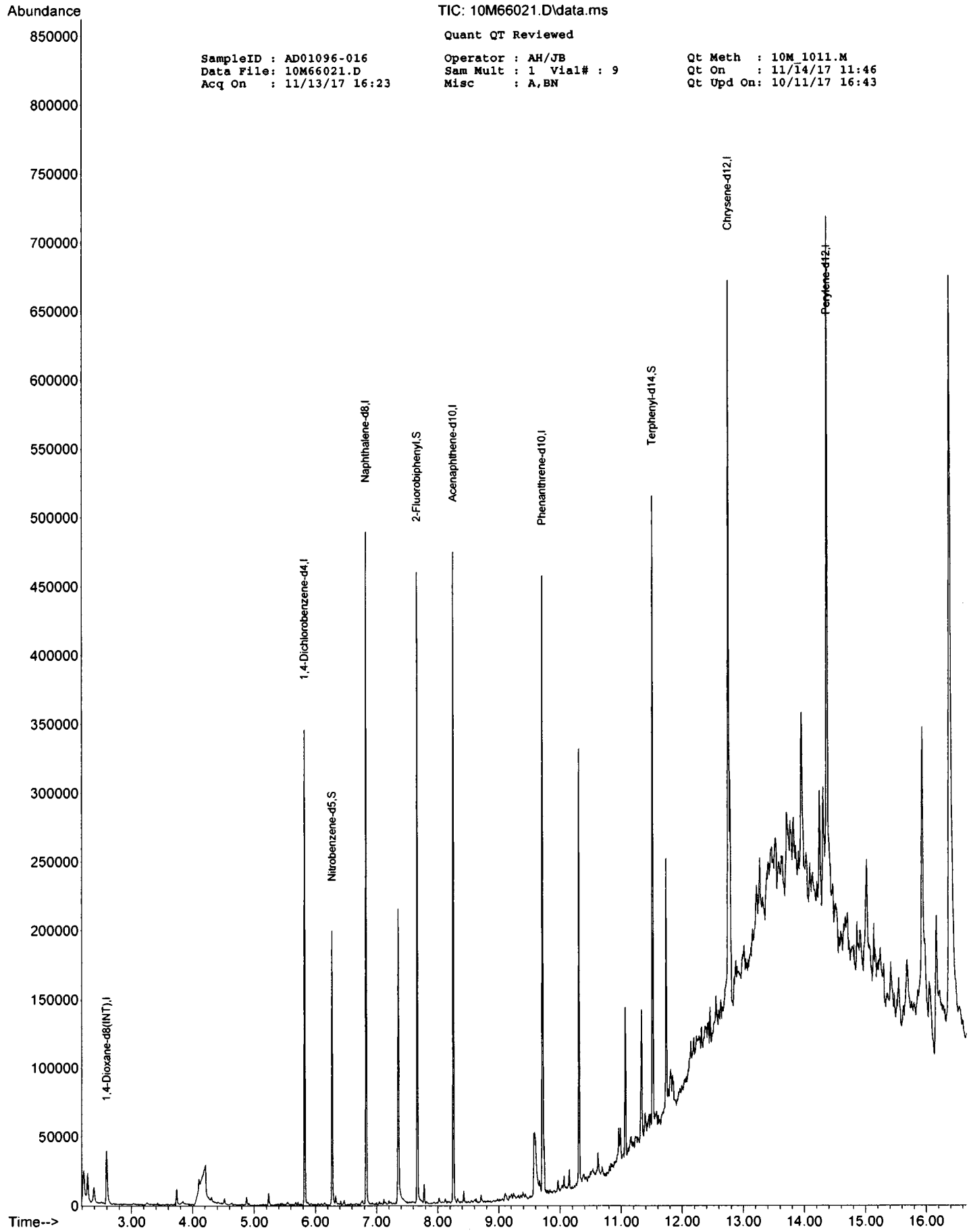
SampleID : AD01096-016 Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66021.D Sam Mult : 1 Vial# : 9 Qt On : 11/14/17 11:46
Acq On : 11/13/17 16:23 Misc : A,BN Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	19012	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.824	152	41346	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	172497	40.00	ng	-0.01
50) Acenaphthene-d10	8.258	164	94500	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	161058	40.00	ng	0.00
91) Chrysene-d12	12.761	240	196494	40.00	ng	0.00
103) Perylene-d12	14.376	264	199531	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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.273	128	22228	33.11	ng	0.00
Spiked Amount 50.000			Recovery =	66.22%		
55) 2-Fluorobiphenyl	7.664	172	123829	41.87	ng	-0.01
Spiked Amount 50.000			Recovery =	83.74%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	122435	40.76	ng	0.00
Spiked Amount 50.000			Recovery =	81.52%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M66021.D\data.ms
Quant QT Reviewed
SampleID : AD01096-016
Data File: 10M66021.D
Acq On : 11/13/17 16:23
Operator : AH/JB
Sam Mult : 1 Vial# : 9
Misc : A,BN
Qt Meth : 10M_1011.M
Qt On : 11/14/17 11:46
Qt Upd On: 10/11/17 16:43
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD01096-017
Client Id: LFB-20171108
Data File: 7M87663.D
Analysis Date: 11/15/17 14:55
Date Rec/Extracted: 11/10/17-11/14/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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.

Quantitation Report (QT Reviewed)

7111017 0137

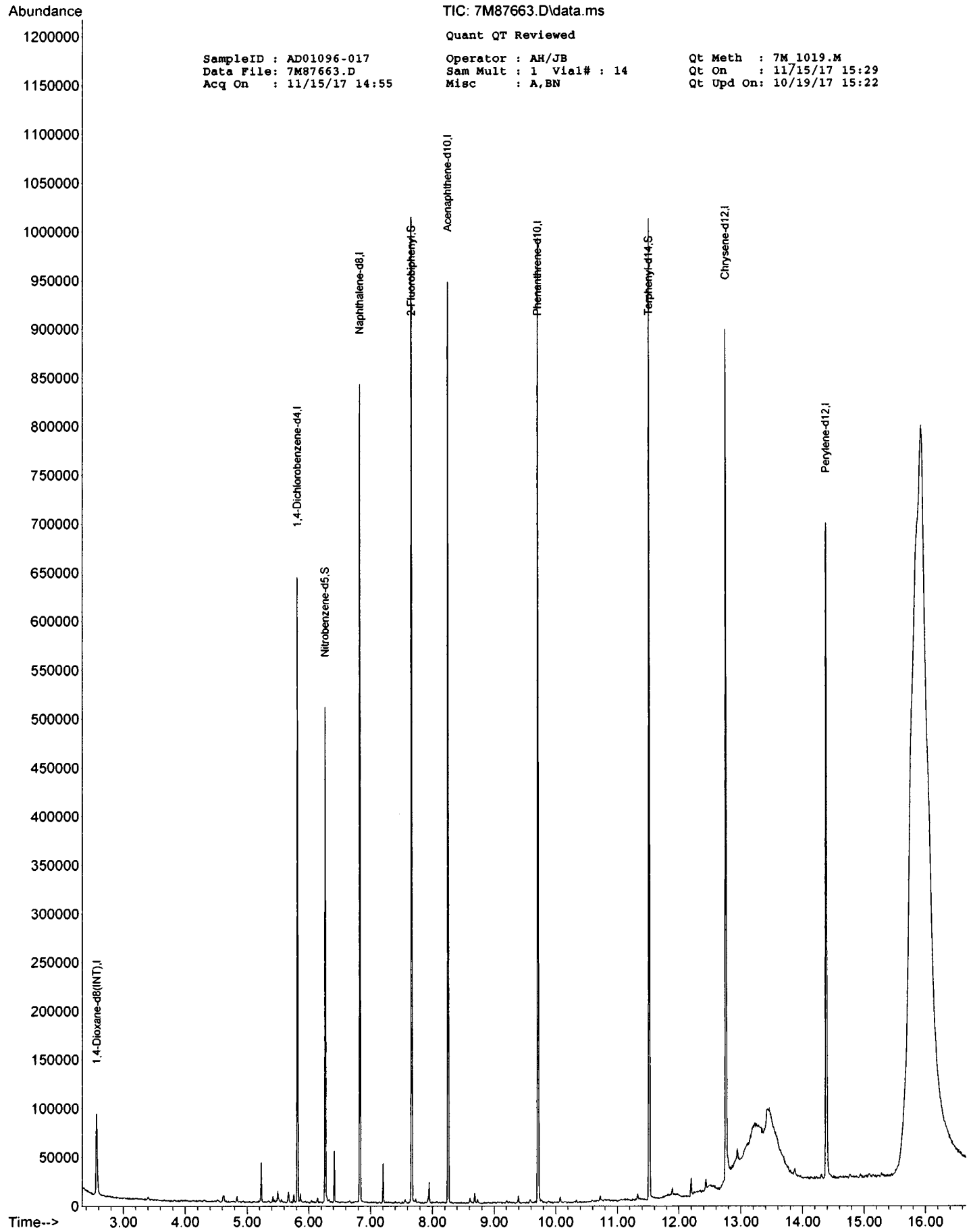
SampleID : AD01096-017 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87663.D Sam Mult : 1 Vial# : 14 Qt On : 11/15/17 15:29
Acq On : 11/15/17 14:55 Misc : A,BN Qt Upd On: 10/19/17 15:22

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	44514	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	83214	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	339914	40.00	ng	0.00
50) Acenaphthene-d10	8.257	164	205432	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	367072	40.00	ng	0.00
91) Chrysene-d12	12.760	240	335442	40.00	ng	-0.01
103) Perylene-d12	14.389	264	279320	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	67497	49.29	ng	0.00
Spiked Amount 50.000			Recovery =	98.58%		
55) 2-Fluorobiphenyl	7.669	172	306224	47.94	ng	0.00
Spiked Amount 50.000			Recovery =	95.88%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	312238	60.20	ng	0.00
Spiked Amount 50.000			Recovery =	120.40%		

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87663.D\data.ms
Quant QT Reviewed
SampleID : AD01096-017
Data File: 7M87663.D
Acq On : 11/15/17 14:55
Operator : AH/JB
Sam Mult : 1 Vial# : 14
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/15/17 15:29
Qt Upd On: 10/19/17 15:22
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

GC/MS Base Neutral/Acid Extractable Data
Standards Data

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Form 6
Initial Calibration

Method: EPA 8270D

Instrument: GCMS_10

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	10M65435.D	CAL BNA@50PPM	10/11/17 16:13	2	10M65426.D	CAL BNA@2PPM	10/11/17 12:48
3	10M65434.D	CAL BNA@10PPM	10/11/17 15:51	4	10M65432.D	CAL BNA@20PPM	10/11/17 15:01
5	10M65430.D	CAL BNA@80PPM	10/11/17 14:17	6	10M65429.D	CAL BNA@120PPM	10/11/17 13:55
7	10M65428.D	CAL BNA@160PPM	10/11/17 13:33	8	10M65427.D	CAL BNA@196PPM	10/11/17 13:10
9	10M65433.D	CAL BNA@.5PPM	10/11/17 15:24				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
1,4-Dioxane	1	0	Qua	1.0726	1.3877	0.9869	1.0685	1.0231	1.0342	1.0201	1.0850	2.1909	1.21	2.63	0.998	0.999	32		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pyridine	1	0	Avg	2.5799	2.5595	2.1896	2.4763	2.7021	2.6162	2.6412	2.7316	-----	2.56	3.10	0.999	0.999	6.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitrosodimethylamin	1	0	Avg	1.4715	1.3616	1.2429	1.3962	1.5060	1.5072	1.4806	1.5801	-----	1.44	3.03	0.998	0.999	7.3		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Fluorophenol	1	0	Avg	2.5935	2.8422	2.2331	2.5194	2.6686	2.6303	2.5953	2.8060	-----	2.61	4.63	0.998	0.999	7.2		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzaldehyde	1	0	Avg	1.3067	1.5937	1.2048	1.3608	1.2673	1.0621	0.9375	0.9002	-----	1.20	5.46	0.977	0.998	19	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Aniline	1	0	Qua	4.1666	2.6044	2.2558	3.1830	4.1778	4.0454	4.1347	4.1310	2.8105	3.50	5.55	0.999	0.999	22		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pentachloroethane	1	0	Avg	0.9697	0.9955	0.7932	0.9122	0.9692	0.9513	0.9560	0.9862	-----	0.942	5.59	0.999	1.00	6.9	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethyl)ether	1	0	Avg	2.6831	2.9554	2.4775	2.6387	2.6779	2.6129	2.7152	2.6608	3.3085	2.75	5.61	1.00	1.00	8.9	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	3.2756	3.2500	2.7786	3.0976	3.3085	3.2122	3.2895	3.4848	-----	3.21	5.51	0.998	0.999	6.4		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Phenol	1	0	Avg	3.7510	4.0224	3.2041	3.5541	3.7355	3.6347	3.7457	3.8026	-----	3.68	5.52	0.999	1.00	6.4	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Chlorophenol	1	0	Avg	3.0961	3.2203	2.7549	3.0604	3.0732	3.0766	3.1224	3.2268	-----	3.08	5.65	0.999	1.00	4.7	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Decane	1	0	Avg	3.1313	3.4748	2.8730	3.1100	3.1116	2.9887	3.0457	2.9985	-----	3.09	5.70	1.00	1.00	5.7	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,3-Dichlorobenzene	1	0	Avg	3.3670	3.9222	3.0144	3.2786	3.3529	3.3139	3.2401	3.4822	-----	3.37	5.78	0.998	0.998	7.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,4-Dichlorobenzene	1	0	Avg	1.4681	1.8402	1.3267	1.4824	1.4911	1.4720	1.4528	1.5093	-----	1.51	5.85	0.999	1.00	9.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Dichlorobenzene	1	0	Avg	1.3966	1.7779	1.2381	1.4011	1.4069	1.3909	1.3871	1.3902	-----	1.42	5.97	1.00	1.00	11		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzyl alcohol	1	0	Avg	0.8391	0.9611	0.7267	0.8144	0.8234	0.8351	0.8338	0.8406	-----	0.834	5.94	1.00	1.00	7.6		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-chloroisopropyl)e	1	0	Avg	1.9758	2.5250	1.7727	2.0044	1.9480	1.8932	1.8323	1.9103	-----	1.98	6.05	0.999	0.999	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylphenol	1	0	Avg	1.1361	1.3221	0.9896	1.1137	1.1308	1.1346	1.1315	1.1511	1.4337	1.17	6.03	1.00	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	1.7744	2.2044	1.6053	1.8363	1.7236	1.6873	1.6349	1.6255	-----	1.76	6.16	0.999	1.00	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachloroethane	1	0	Avg	0.5336	0.6271	0.4495	0.5319	0.5375	0.5380	0.5330	0.5485	-----	0.537	6.25	1.00	1.00	8.9	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitroso-di-n-propyla	1	0	Avg	0.8053	0.9441	0.7166	0.8320	0.7939	0.7677	0.7396	0.7488	0.9275	0.808	6.16	0.999	1.00	9.9	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
3&4-Methylphenol	1	0	Avg	1.1841	1.3740	1.0380	1.2145	1.1877	1.1648	1.1200	1.1138	1.3793	1.20	6.16	0.999	1.00	9.5		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Nitrobenzene-d5	1	0	Avg	0.1523	0.1660	0.1303	0.1454	0.1588	0.1602	0.1614	0.1706	-----	0.156	6.28	0.998	1.00	8.2		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
Nitrobenzene	1	0	Avg	0.2963	0.3650	0.2650	0.2981	0.3106	0.2966	0.2998	0.3163	-----	0.306	6.29	0.998	0.999	9.2	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Isophorone	1	0	Avg	0.5566	0.6692	0.4931	0.5523	0.5612	0.5533	0.5651	0.6010	-----	0.569	6.48	0.998	0.999	8.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitrophenol	1	0	Avg	0.1801	0.1760	0.1476	0.1777	0.1908	0.1914	0.1935	0.2022	-----	0.182	6.55	0.998	0.999	9.1	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dimethylphenol	1	0	Avg	0.3066	0.3531	0.2747	0.3103	0.3116	0.3082	0.3132	0.3260	0.3722	0.320	6.57	0.999	1.00	8.9	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	0.2661	-----	0.0537	0.1961	0.3258	0.3417	0.3596	0.3613	-----	0.272	6.64	0.999	0.999	42		50.00		10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethoxy)me	1	0	Avg	0.3612	0.4355	0.3288	0.3710	0.3628	0.3557	0.3579	0.3694	-----	0.368	6.64	0.999	1.00	8.2	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dichlorophenol	1	0	Avg	0.2846	0.3060	0.2453	0.2807	0.2954	0.2922	0.3013	0.3123	0.3003	0.291	6.72	0.999	1.00	6.8	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,2,4-Trichlorobenzen	1	0	Avg	0.3053	0.3768	0.2797	0.3110	0.3168	0.3121	0.3169	0.3412	-----	0.320	6.79	0.997	0.999	8.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Naphthalene	1	0	Qua	1.0368	1.2320	0.9299	1.0440	1.0124	1.0039	1.0014	0.9895	1.4204	1.07	6.86	1.00	1.00	14	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	0.3811	0.3173	0.2215	0.2995	0.3633	0.3251	0.2900	-----	0.3403	0.317	6.89	0.983	0.998	16	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0		0.50
Hexachlorobutadiene	1	0	Avg	0.1699	0.2072	0.1564	0.1693	0.1749	0.1730	0.1783	0.1792	-----	0.176	6.94	1.00	1.00	8.2	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Caprolactam	1	0	Qua	0.1148	0.1190	0.0981	0.1130	0.1189	0.1141	0.1302	0.1297	-----	0.117	7.17	0.995	0.998	8.7	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chloro-3-methylphe	1	0	Avg	0.2620	0.2999	0.2246	0.2585	0.2780	0.2634	0.2733	0.2752	-----	0.267	7.25	0.999	0.999	8.0	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylnaphthalene	1	0	Avg	0.6974	0.8354	0.6153	0.7108	0.7122	0.7045	0.7056	0.6898	-----	0.709	7.39	1.00	1.00	8.5	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1-Methylnaphthalene	1	0	Avg	0.6490	0.7877	0.6202	0.6649	0.7000	0.6780	0.6796	0.6673	-----	0.681	7.47	0.999	1.00	7.2	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Methylnaphthalenes (	1	0	Avg	0.6743	0.8115	0.6166	0.6909	0.7024	0.6876	0.6899	0.6762	-----	0.694	7.39	1.00	1.00	7.8		100.0	4.00	20.00	40.00	160.0	240.0	320.0	392.0	
1,1'-Biphenyl	1	0	Avg	0.8207	0.9593	0.7396	0.8171	0.8031	0.8302	0.8151	0.8092	-----	0.824	7.76	1.00	1.00	7.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2,4,5-Tetrachloroben	1	0	Avg	0.5865	0.6649	0.4950	0.5590	0.5757	0.5512	0.5500	0.5618	-----	0.568	7.52	0.999	0.999	8.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	

Avg Rsd: 9.59

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.

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Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_10

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	10M65435.D	CAL BNA@50PPM	10/11/17 16:13	2	10M65426.D	CAL BNA@2PPM	10/11/17 12:48
3	10M65434.D	CAL BNA@10PPM	10/11/17 15:51	4	10M65432.D	CAL BNA@20PPM	10/11/17 15:01
5	10M65430.D	CAL BNA@80PPM	10/11/17 14:17	6	10M65429.D	CAL BNA@120PPM	10/11/17 13:55
7	10M65428.D	CAL BNA@160PPM	10/11/17 13:33	8	10M65427.D	CAL BNA@196PPM	10/11/17 13:10
9	10M65433.D	CAL BNA@.5PPM	10/11/17 15:24				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
Hexachlorocyclopenta	1	0	Avg	0.3347	0.2998	0.2534	0.3121	0.3605	0.3452	0.3597	0.3646	-----	0.329	7.51	0.999	0.999	12	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	0.3505	0.3713	0.2945	0.3439	0.3555	0.3413	0.3544	0.3672	-----	0.347	7.60	0.999	0.999	6.8	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	0.3738	0.3910	0.3190	0.3652	0.3829	0.3754	0.3839	0.3952	-----	0.373	7.64	0.999	1.00	6.4	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Fluorobiphenyl	1	0	Avg	1.2658	1.3955	1.1023	1.2645	1.2431	1.2167	1.2433	1.2824	-----	1.25	7.67	0.999	0.999	6.5		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
2-Chloronaphthalene	1	0	Avg	1.0651	1.1951	0.9342	1.0674	1.0654	1.0219	1.0288	1.0611	-----	1.05	7.79	0.999	0.999	6.8	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,4-Dimethylnaphthale	1	0	Avg	0.8603	0.9967	0.7621	0.8803	0.8759	0.8453	0.8286	0.8168	-----	0.858	8.06	0.999	0.999	7.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylnaphthalenes	1	0	Avg	0.8603	0.9967	0.7621	0.8803	0.8759	0.8453	0.8286	0.8168	-----	0.858	8.06	0.999	0.999	7.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diphenyl Ether	1	0	Avg	0.8230	0.9363	0.7239	0.8187	0.8361	0.8081	0.8049	0.8330	-----	0.823	7.85	0.999	0.999	7.0		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitroaniline	1	0	Avg	0.3603	0.3698	0.2977	0.3571	0.3679	0.3474	0.3427	0.3494	-----	0.349	7.86	0.999	0.999	6.5	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Coumarin	1	0	Avg	0.4363	0.4817	0.3873	0.4538	0.4339	0.4276	0.4325	0.4294	-----	0.435	8.05	1.00	1.00	6.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthylene	1	0	Avg	1.7180	1.9233	1.5118	1.6971	1.7152	1.7207	1.6756	1.7225	-----	1.71	8.15	1.00	1.00	6.5	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylphthalate	1	0	Avg	1.2002	1.3820	1.0548	1.2113	1.2074	1.1828	1.2075	1.2280	-----	1.21	8.01	1.00	1.00	7.3	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,6-Dinitrotoluene	1	0	Qua	0.2835	0.2599	0.2413	0.2864	0.2910	0.2867	0.2824	0.2777	-----	0.276	8.06	0.999	1.00	6.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthene	1	0	Avg	1.1152	1.3269	1.0147	1.1124	1.1101	1.0797	1.0792	1.0970	-----	1.12	8.29	1.00	1.00	8.1	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3-Nitroaniline	1	0	Qua	0.3182	0.2766	0.2280	0.2819	0.3141	0.2871	0.2671	0.2511	-----	0.278	8.21	0.988	0.999	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dinitrophenol	1	0	Qua	0.1179	-----	0.0126	0.0644	0.1477	0.1628	0.1765	0.1809	-----	0.123	8.30	0.997	0.999	51	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzofuran	1	0	Avg	1.5688	1.7968	1.3919	1.5908	1.5862	1.5595	1.5507	1.5816	1.9602	1.62	8.45	1.00	1.00	10	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	0.3718	0.3267	0.2932	0.3641	0.3812	0.3732	0.3813	0.3898	-----	0.360	8.42	0.999	1.00	9.2	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitrophenol	1	0	Qua	0.2370	0.1929	0.1649	0.2179	0.2307	0.2274	0.2229	0.2247	-----	0.215	8.33	0.999	1.00	11	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	0.3373	0.3218	0.2709	0.3227	0.3209	0.3310	0.3284	0.3474	-----	0.323	8.55	0.999	0.999	7.0	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Fluorene	1	0	Avg	1.2831	1.4515	1.1370	1.2789	1.2714	1.2907	1.2709	1.2788	-----	1.28	8.77	1.00	1.00	6.6	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chlorophenyl-phenyl	1	0	Avg	0.6014	0.6358	0.5250	0.5939	0.5923	0.6112	0.6091	0.6241	-----	0.599	8.76	1.00	1.00	5.6	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diethylphthalate	1	0	Avg	1.2221	1.5396	1.0774	1.2305	1.1820	1.2086	1.2180	1.2591	-----	1.24	8.64	0.999	1.00	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitroaniline	1	0	Qua	0.3688	0.3424	0.3071	0.3583	0.3604	0.3726	0.3710	0.3822	-----	0.358	8.78	0.999	1.00	6.6	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Atrazine	1	0	Avg	0.3344	0.3359	0.2731	0.3303	0.3239	0.3289	0.3355	0.3507	-----	0.327	9.40	0.998	1.00	7.0	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	0.1078	-----	0.0382	0.0794	0.1230	0.1288	0.1400	0.1413	-----	0.108	8.80	0.998	0.999	35	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
n-Nitrosodiphenylamin	1	0	Avg	0.6139	0.7046	0.5420	0.6240	0.6370	0.6371	0.6326	0.6500	-----	0.630	8.87	0.999	1.00	7.1	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	0.1088	0.1032	0.0879	0.1079	0.1129	0.1153	0.1178	0.1198	-----	0.109	9.00	0.999	1.00	9.3		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Diphenylhydrazine	1	0	Avg	0.6246	0.6818	0.5745	0.6255	0.6350	0.6903	0.6853	0.6856	-----	0.650	8.92	0.998	0.999	6.4		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Bromophenyl-phenyl	1	0	Avg	0.2048	0.2346	0.1754	0.2032	0.2120	0.2025	0.2124	0.2195	-----	0.208	9.25	0.998	0.999	8.1	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachlorobenzene	1	0	Avg	0.2187	0.2363	0.1948	0.2086	0.2249	0.2171	0.2286	0.2332	-----	0.220	9.31	0.996	0.999	6.2	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Octadecane	1	0	Avg	0.4531	0.4888	0.3900	0.4492	0.4614	0.4371	0.4291	0.4222	-----	0.441	9.58	0.999	1.00	6.6	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pentachlorophenol	1	0	Qua	0.1308	-----	0.0739	0.1067	0.1462	0.1456	0.1564	0.1627	-----	0.132	9.51	0.997	1.00	24	0.05	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Phenanthrene	1	0	Avg	1.0984	1.3303	0.9904	1.0872	1.1149	1.1065	1.1062	1.1118	-----	1.12	9.75	1.00	1.00	8.5	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Anthracene	1	0	Avg	1.1409	1.2744	0.9897	1.1013	1.1390	1.1378	1.1322	1.1583	-----	1.13	9.80	1.00	1.00	6.9	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Carbazole	1	0	Avg	1.0317	1.1659	0.9108	1.0276	1.0430	1.0566	1.0503	1.0490	-----	1.04	9.97	1.00	1.00	6.6	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-butylphthalate	1	0	Qua	1.2023	1.2595	1.0055	1.1737	1.2469	1.1893	1.2462	1.2440	1.2092	1.20	10.35	0.999	1.00	6.5	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Fluoranthene	1	0	Avg	1.1830	1.3021	1.0266	1.1526	1.2114	1.1488	1.1847	1.2015	-----	1.18	11.08	0.999	0.999	6.5	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pyrene	1	0	Avg	1.1279	1.2380	0.9503	1.1075	1.1632	1.1333	1.1212	1.0991	-----	1.12	11.34	0.999	1.00	7.2	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzidine	1	0	Qua	0.5932	0.3014	0.2310	0.4063	0.5807	0.5025	0.4536	-----	-----	0.438	11.23	0.976	0.996	31		50.00	2.00	10.00	20.00	80.00	120.0	160.0		
Terphenyl-d14	1	0	Avg	0.6037	0.6592	0.5194	0.6049	0.6208	0.5982	0.6351	0.6507	-----	0.612	11.52	0.998	0.999	7.1		25.00	1.00	5.00	10.00	40.00	60.00	80.00	96.00	

Flags	*Note:* Avg Rsd: 9.59
a - failed the min rf criteria	*Corr 1 = Correlation Coefficient for linear Eq.*
c - failed the minimum correlation coeff criteria(if applicable)	*Corr 2 = Correlation Coefficient for quad Eq.*
	Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

7111017 0142

Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_10

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	10M65435.D	CAL BNA@50PPM	10/11/17 16:13	2	10M65426.D	CAL BNA@2PPM	10/11/17 12:48
3	10M65434.D	CAL BNA@10PPM	10/11/17 15:51	4	10M65432.D	CAL BNA@20PPM	10/11/17 15:01
5	10M65430.D	CAL BNA@80PPM	10/11/17 14:17	6	10M65429.D	CAL BNA@120PPM	10/11/17 13:55
7	10M65428.D	CAL BNA@160PPM	10/11/17 13:33	8	10M65427.D	CAL BNA@196PPM	10/11/17 13:10
9	10M65433.D	CAL BNA@.5PPM	10/11/17 15:24				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
4,4'-DDE	1	0	Avg	0.2183	0.2414	0.1876	0.2125	0.2323	0.2272	0.2365	0.2316	-----	0.223	11.46	0.999	0.999	7.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDD	1	0	Avg	0.4249	0.4290	0.3600	0.4288	0.4365	0.4221	0.4473	0.4404	-----	0.424	11.86	0.999	0.999	6.4		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Butylbenzylphthalate	1	0	Qua	0.4978	0.4978	0.3860	0.4840	0.5104	0.4944	0.5235	0.5144	-----	0.489	12.11	0.999	0.999	8.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDT	1	0	Avg	0.3705	0.3172	0.2950	0.3556	0.3970	0.3700	0.3850	0.3786	-----	0.359	12.21	0.999	0.999	9.8		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3,3'-Dichlorobenzidine	1	0	Qua	0.3257	0.2634	0.2002	0.2290	0.3206	0.2868	0.2744	0.2658	-----	0.271	12.73	0.991	0.998	16	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]anthracene	1	0	Avg	1.0446	1.2089	0.8798	0.9913	1.0366	0.9994	1.0317	1.0200	-----	1.03	12.76	1.00	1.00	8.8	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Chrysene	1	0	Avg	0.9659	1.1314	0.8748	0.9986	0.9978	0.9296	0.9491	0.9511	-----	0.975	12.80	0.999	0.999	7.7	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Ethylhexyl)phthal	1	0	Avg	0.7097	0.6748	0.5681	0.6864	0.7344	0.6901	0.7057	0.6939	-----	0.683	12.80	0.999	0.999	7.3	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-octylphthalate	1	0	Qua	1.2939	1.1421	0.9681	1.1644	1.3296	1.3038	1.3804	1.3746	-----	1.24	13.55	0.999	1.00	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[b]fluoranthene	1	0	Avg	1.1059	1.1651	0.8842	0.9929	1.1655	1.0662	1.1951	1.1637	-----	1.09	13.96	0.997	0.998	9.8	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[k]fluoranthene	1	0	Avg	1.0641	1.1905	0.9771	1.0577	1.1375	1.0462	1.1359	1.0948	-----	1.09	14.00	0.998	0.998	6.1	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]pyrene	1	0	Avg	1.0542	1.1111	0.8700	0.9898	1.0700	1.0593	1.0906	1.0993	-----	1.04	14.32	1.00	1.00	7.6	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Indeno[1,2,3-cd]pyren	1	0	Avg	1.1662	1.1991	0.9575	1.0756	1.1503	1.1483	1.1980	1.2375	-----	1.14	15.70	0.998	0.999	7.7	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzo[a,h]anthracen	1	0	Avg	0.9849	0.9979	0.8101	0.9037	0.9825	0.9691	1.0224	1.0551	-----	0.966	15.72	0.998	1.00	7.9	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[g,h,i]perylene	1	0	Avg	0.9648	1.0971	0.8431	0.9150	0.9734	0.9510	1.0170	1.0388	-----	0.975	16.08	0.998	0.999	8.0	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	

Flags	*Note:* Avg Rsd: 9.59
a - failed the min rf criteria	*Corr 1 = Correlation Coefficient for linear Eq.*
c - failed the minimum correlation coeff criteria(if applicable)	*Corr 2 = Correlation Coefficient for quad Eq.*
	Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65435.D Sam Mult : 1 Vial# : 3 Qt On : 10/11/17 16:30
Acq On : 10/11/17 16:13 Misc : A,BNA Qt Upd On: 10/11/17 16:29

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.599	96	33882	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	80006	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	313413	40.00	ng	0.00
50) Acenaphthene-d10	8.263	164	183517	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	322810	40.00	ng	0.00
91) Chrysene-d12	12.766	240	359198	40.00	ng	0.00
103) Perylene-d12	14.382	264	321946	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.631	112	109841	49.68	ng	0.00
Spiked Amount 100.000			Recovery = 49.68%			
16) Phenol-d5	5.508	99	138732	51.41	ng	0.00
Spiked Amount 100.000			Recovery = 51.41%			
32) Nitrobenzene-d5	6.278	128	29834	24.26	ng	0.00
Spiked Amount 50.000			Recovery = 48.52%			
55) 2-Fluorobiphenyl	7.674	172	145188	25.40	ng	0.00
Spiked Amount 50.000			Recovery = 50.80%			
80) 2,4,6-Tribromophenol	9.001	330	43921	49.65	ng	0.00
Spiked Amount 100.000			Recovery = 49.65%			
94) Terphenyl-d14	11.520	244	135534	24.65	ng	0.00
Spiked Amount 50.000			Recovery = 49.30%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.631	88	45431	53.5714	ng	78
9) Pyridine	3.101	79	109269	49.8659	ng	85
10) N-Nitrosodimethylamine	3.032	74	62324	51.0198	ng	93
12) Benzaldehyde	5.460	77	55342	54.4976	ng	60
13) Aniline	5.551	93	176467	52.3037	ng	34
14) Pentachloroethane	5.594	117	41072	51.5659	ng	76
15) bis(2-Chloroethyl)ether	5.610	93	113638	49.4828	ng	82
17) Phenol	5.519	94	158867	51.5076	ng	86
18) 2-Chlorophenol	5.647	128	131131	50.8445	ng	79
19) N-Decane	5.695	57	132622	51.3034	ng	93
20) 1,3-Dichlorobenzene	5.781	146	142604	50.2991	ng	97
22) 1,4-Dichlorobenzene	5.845	146	146823	48.7356	ng	97
23) 1,2-Dichlorobenzene	5.968	146	139678	48.8545	ng	95
24) Benzyl alcohol	5.942	108	83923	50.3547	ng	68
25) bis(2-chloroisopropyl)...	6.054	45	197601	49.7979	ng	99
26) 2-Methylphenol	6.027	108	113623	48.3525	ng	93
27) Acetophenone	6.161	105	177454	50.2214	ng	62
28) Hexachloroethane	6.246	117	53368	49.2379	ng	88
29) N-Nitroso-di-n-propyla...	6.161	70	80542	49.6720	ng	86
30) 3&4-Methylphenol	6.155	108	118421	49.1822	ng	97
33) Nitrobenzene	6.295	77	116088	48.1316	ng	74
34) Isophorone	6.482	82	218079	48.7059	ng	79
35) 2-Nitrophenol	6.546	139	70578	48.9176	ng	79
36) 2,4-Dimethylphenol	6.567	107	120127	47.9454	ng	85
37) Benzoic Acid	6.642	105	104272	43.5343	ng	81
38) bis(2-Chloroethoxy)met...	6.642	93	141511	49.0018	ng	96
39) 2,4-Dichlorophenol	6.722	162	111521	48.6233	ng	84
40) 1,2,4-Trichlorobenzene	6.792	180	119629	47.6668	ng	97
41) Naphthalene	6.856	128	406200	50.7854	ng	99
42) 4-Chloroaniline	6.888	127	149319m	51.0998	ng	
43) Hexachlorobutadiene	6.942	225	66573	48.3900	ng	96
44) Caprolactam	7.166	113	45010	51.0658	ng	70
45) 4-Chloro-3-methylphenol	7.247	107	102641	48.7487	ng	67
46) 2-Methylnaphthalene	7.391	142	273240	48.7409	ng	99
47) 1-Methylnaphthalene	7.466	142	254271	47.4988	ng	92
48) Methylnaphthalenes (To...	7.391	142	528352m	96.6458	ng	
49) 1,1'-Biphenyl	7.760	154	321524	49.8844	ng	93
51) 1,2,4,5-Tetrachloroben...	7.519	216	134545	51.8835	ng	96
52) Hexachlorocyclopentadiene	7.509	237	76786	50.8216	ng	99
53) 2,4,6-Trichlorophenol	7.605	196	80421m	50.3649	ng	
54) 2,4,5-Trichlorophenol	7.637	196	85749m	50.1246	ng	
56) 2-Chloronaphthalene	7.787	162	244345m	45.0250	ng	
57) 1,4-Dimethylnaphthalene	8.065	156	197352	49.9059	ng	86
58) Dimethylnaphthalenes (...	8.065	156	197352	49.9059	ng	86
59) Diphenyl Ether	7.846	170	188812	50.2054	ng	75
60) 2-Nitroaniline	7.862	65	82659	51.8349	ng	42
61) Coumarin	8.049	146	100099	49.9278	ng	85
62) Acenaphthylene	8.145	152	394123	50.4983	ng	100
63) Dimethylphthalate	8.006	163	275323	49.6450	ng	98
64) 2,6-Dinitrotoluene	8.065	165	65034	50.9590	ng	57
65) Acenaphthene	8.295	153	255826	50.2736	ng	98

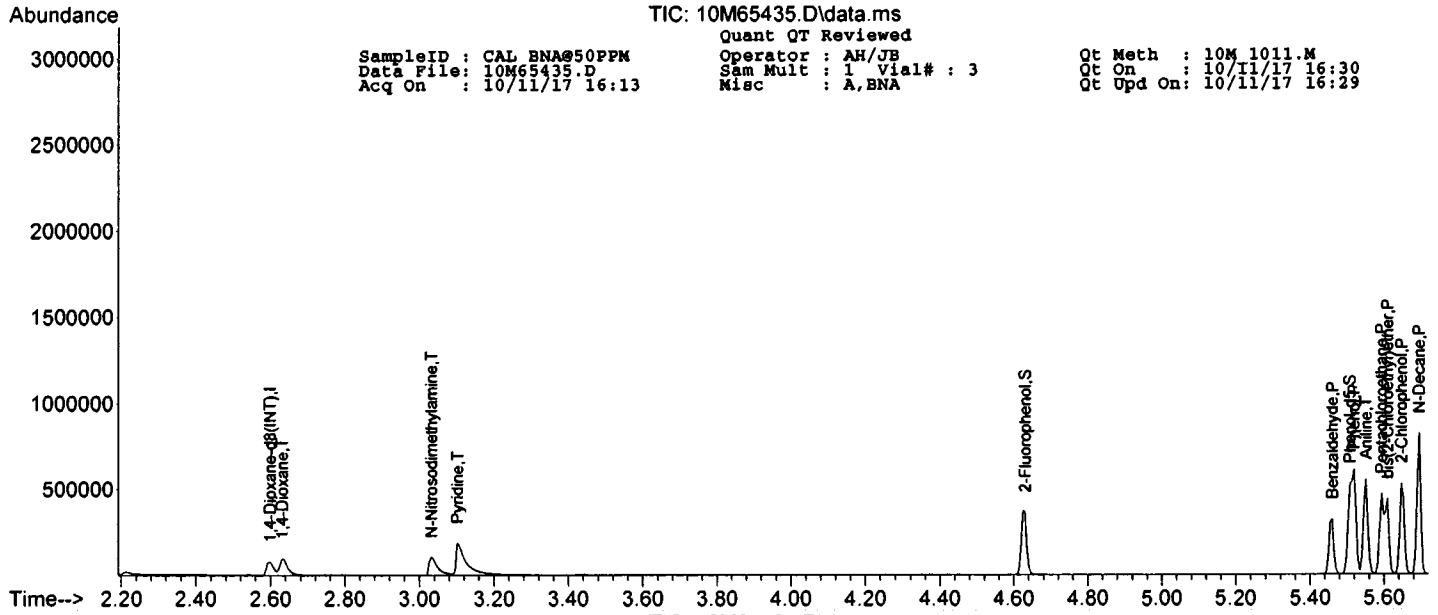
Quantitation Report (QT Reviewed)

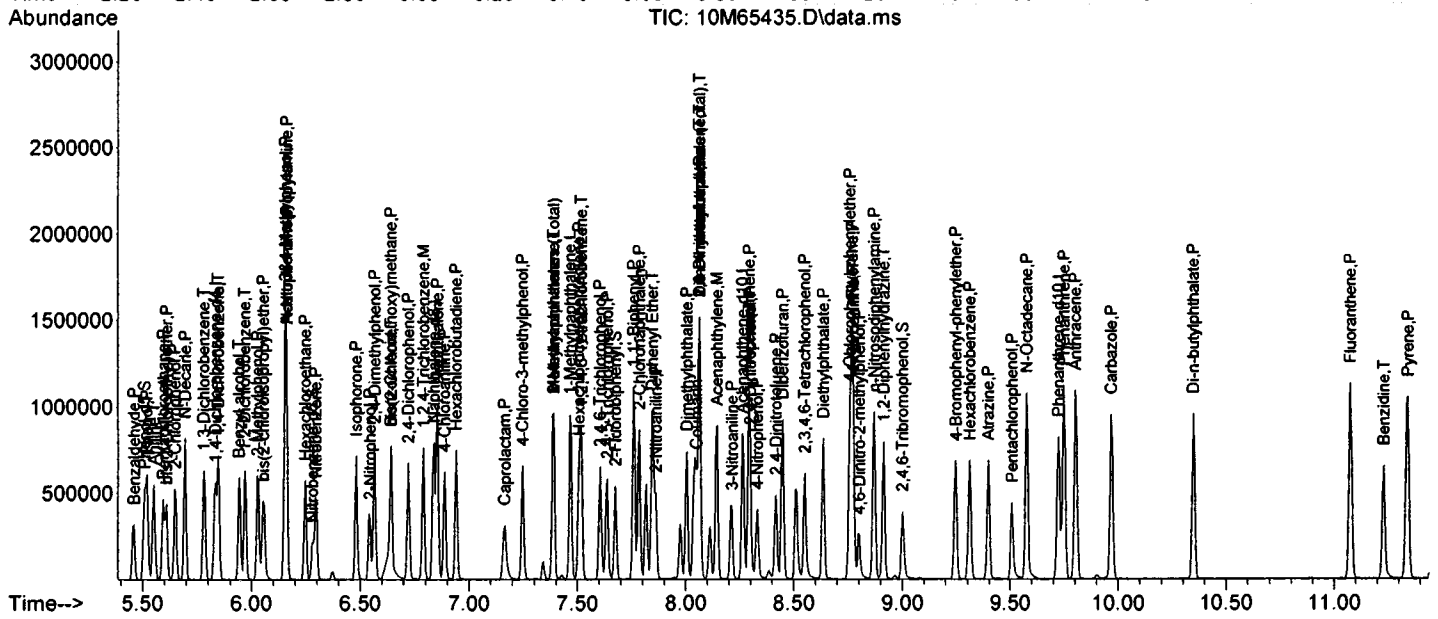
SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65435.D Sam Mult : 1 Vial# : 3 Qt On : 10/11/17 16:30
Acq On : 10/11/17 16:13 Misc : A,BNA Qt Upd On: 10/11/17 16:29

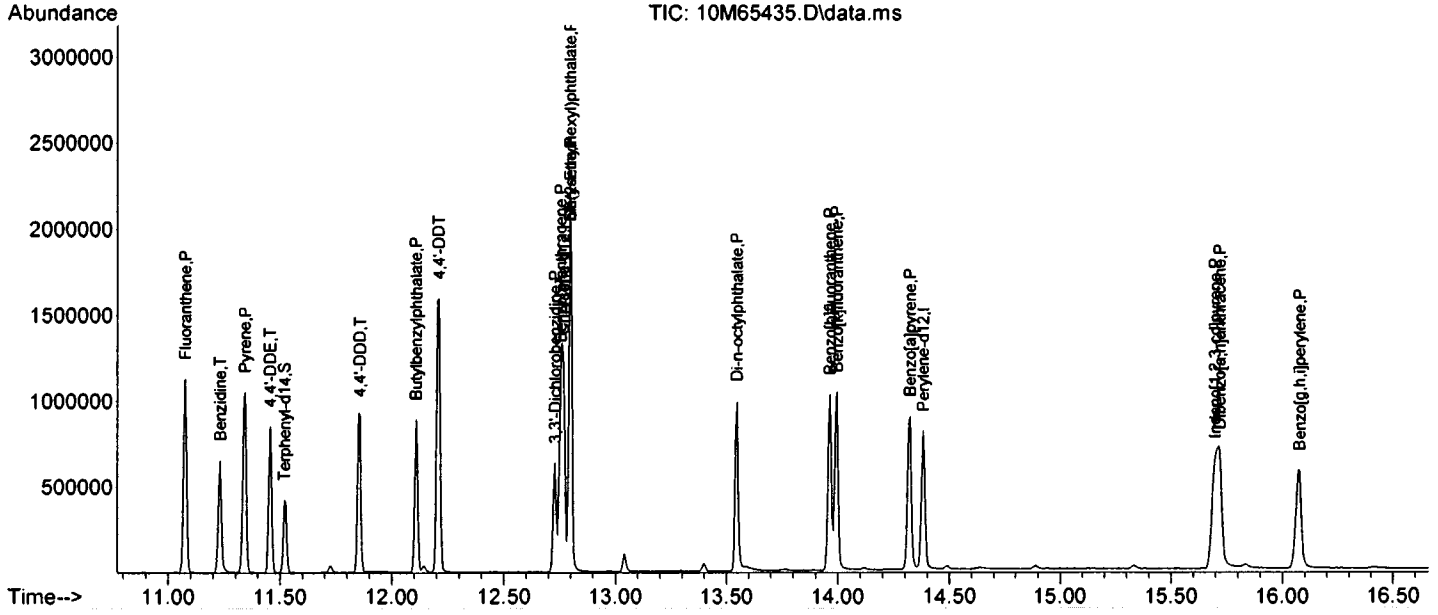
Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.215	138	73007	57.3101	ng	65
67)	2,4-Dinitrophenol	8.300	184	27060	44.4485	ng	58
68)	Dibenzofuran	8.450	168	359884	48.4881	ng	83
69)	2,4-Dinitrotoluene	8.418	165	85294	51.3739	ng	61
70)	4-Nitrophenol	8.332	65	54368	51.7745	ng	87
71)	2,3,4,6-Tetrachlorophenol	8.552	232	77380	52.2473	ng	77
72)	Fluorene	8.771	166	294341	49.8936	ng	99
73)	4-Chlorophenyl-phenyle...	8.760	204	137964	50.4307	ng	82
74)	Diethylphthalate	8.637	149	280364	49.3391	ng	96
75)	4-Nitroaniline	8.776	138	84610	51.5839	ng	69
76)	Atrazine	9.397	200	76710	50.9908	ng	96
78)	4,6-Dinitro-2-methylph...	8.803	198	43534	47.1848	ng	72
79)	n-Nitrosodiphenylamine	8.873	169	247727	48.5560	ng	99
81)	1,2-Diphenylhydrazine	8.915	77	252047	48.5171	ng	76
82)	4-Bromophenyl-phenylether	9.247	248	82641	49.2850	ng	84
83)	Hexachlorobenzene	9.311	284	88261	49.7715	ng	66
84)	N-Octadecane	9.579	57	182840	51.5536	ng	93
85)	Pentachlorophenol	9.509	266	52785	48.9785	ng	96
86)	Phenanthrene	9.750	178	443220	49.1285	ng	98
87)	Anthracene	9.803	178	460403	50.4782	ng	99
88)	Carbazole	9.969	167	416316	49.4284	ng	97
89)	Di-n-butylphthalate	10.349	149	485149	50.3307	ng	97
90)	Fluoranthene	11.076	202	477363	50.1515	ng	89
92)	Pyrene	11.344	202	506466	50.4668	ng	84
93)	Benzidine	11.231	184	266367	50.8516	ng	84
95)	4,4'-DDE	11.456	246	98043	48.6812	ng	92
96)	4,4'-DDD	11.857	235	190795	49.9275	ng	96
97)	Butylbenzylphthalate	12.108	149	223521	50.0430	ng	68
98)	4,4'-DDT	12.210	235	166355	51.6369	ng	97
99)	3,3'-Dichlorobenzidine	12.729	252	146269	52.4998	ng	96
100)	Benzo[a]anthracene	12.756	228	469030	50.8718	ng	100
101)	Chrysene	12.798	228	433720	49.5559	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.798	149	318654	51.7532	ng	95
104)	Di-n-octylphthalate	13.547	149	520714	50.3890	ng	100
105)	Benzo[b]fluoranthene	13.964	252	445050	50.6967	ng	94
106)	Benzo[k]fluoranthene	13.997	252	428235m	49.3434	ng	
107)	Benzo[a]pyrene	14.323	252	424255	50.4801	ng	91
108)	Indeno[1,2,3-cd]pyrene	15.697	276	469353	51.3075	ng	83
109)	Dibenzo[a,h]anthracene	15.719	278	396369	51.2756	ng	89
110)	Benzo[g,h,i]perylene	16.077	276	388303	49.7823	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65435.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 10M65435.D
Acq On : 10/11/17 16:13
Operator : AH/JB
Sam Mult : 1 Vial# : 3
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 16:30
Qt Upd On: 10/11/17 16:29
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 10M65435.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
Diethylphthalate,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 10M65435.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Perylene-d12,I
Benzo(g,h,i)perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65426.D Sam Mult : 1 Vial# : 3 Qt On : 10/11/17 14:04
Acq On : 10/11/17 12:48 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	38350	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.829	152	81219	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	313189	40.00	ng	0.00
50) Acenaphthene-d10	8.263	164	196803	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	349781	40.00	ng	0.00
91) Chrysene-d12	12.766	240	392993	40.00	ng	-0.01
103) Perylene-d12	14.382	264	369787	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.626	112	5450m	2.21	ng	0.00
Spiked Amount 100.000			Recovery = 2.21%			
16) Phenol-d5	5.503	99	6232	1.89	ng	-0.01
Spiked Amount 100.000			Recovery = 1.89%			
32) Nitrobenzene-d5	6.279	128	1300	0.97	ng	0.00
Spiked Amount 50.000			Recovery = 1.94%			
55) 2-Fluorobiphenyl	7.675	172	6866	1.02	ng	0.00
Spiked Amount 50.000			Recovery = 2.04%			
80) 2,4,6-Tribromophenol	9.001	330	1805	1.88	ng	0.00
Spiked Amount 100.000			Recovery = 1.88%			
94) Terphenyl-d14	11.520	244	6477	1.07	ng	0.00
Spiked Amount 50.000			Recovery = 2.14%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.641	88	2661	2.7081	ng	72
9) Pyridine	3.182	79	4908	1.9214	ng	89
10) N-Nitrosodimethylamine	3.080	74	2611	1.8312	ng	95
12) Benzaldehyde	5.455	77	3056	6.9680	ng	74
13) Aniline	5.551	93	4994	1.3931	ng	30
14) Pentachloroethane	5.594	117	1909	1.9334	ng	68
15) bis(2-Chloroethyl)ether	5.605	93	5667	2.0717	ng	82
17) Phenol	5.514	94	7713	2.0959	ng	83
18) 2-Chlorophenol	5.647	128	6175	2.1073	ng	75
19) N-Decane	5.690	57	6663	2.4105	ng	97
20) 1,3-Dichlorobenzene	5.781	146	7521	2.3239	ng	95
22) 1,4-Dichlorobenzene	5.845	146	7473	2.2659	ng	95
23) 1,2-Dichlorobenzene	5.968	146	7220	2.3258	ng	96
24) Benzyl alcohol	5.942	108	3903	2.1514	ng	66
25) bis(2-chloroisopropyl)...	6.054	45	10254	2.9261	ng	91
26) 2-Methylphenol	6.027	108	5369	2.0070	ng	94
27) Acetophenone	6.156	105	8952	2.5195	ng	67
28) Hexachloroethane	6.246	117	2547	2.1687	ng	81
29) N-Nitroso-di-n-propyla...	6.156	70	3834	2.1317	ng	87
30) 3&4-Methylphenol	6.150	108	5580	2.1310	ng	95
33) Nitrobenzene	6.295	77	5716	2.1171	ng	75
34) Isophorone	6.476	82	10480	2.1429	ng	87
35) 2-Nitrophenol	6.541	139	2757	1.8499	ng	90
36) 2,4-Dimethylphenol	6.562	107	5530	1.9542	ng	82
37) Benzoic Acid	0.000		0	N.D.		
38) bis(2-Chloroethoxy)met...	6.642	93	6821	2.1689	ng	94
39) 2,4-Dichlorophenol	6.722	162	4793	1.8331	ng	80
40) 1,2,4-Trichlorobenzene	6.792	180	5901	2.2160	ng	94
41) Naphthalene	6.851	128	19293m	2.1599	ng	
42) 4-Chloroaniline	6.888	127	4969	1.3890	ng	93
43) Hexachlorobutadiene	6.942	225	3245	2.1364	ng	94
44) Caprolactam	7.140	113	1864	2.1253	ng	65
45) 4-Chloro-3-methylphenol	7.241	107	4697	1.9722	ng	74
46) 2-Methylnaphthalene	7.386	142	13082	2.2044	ng	97
47) 1-Methylnaphthalene	7.466	142	12336	2.1517	ng	88
48) Methylnaphthalenes (To...	7.386	142	25418m	4.3657	ng	
49) 1,1'-Biphenyl	7.760	154	15023	1.9317	ng	93
51) 1,2,4,5-Tetrachloroben...	7.519	216	6543	2.4241	ng	95
52) Hexachlorocyclopentadiene	7.509	237	2951	1.8852	ng	88
53) 2,4,6-Trichlorophenol	7.605	196	3654m	2.0662	ng	
54) 2,4,5-Trichlorophenol	7.632	196	3848m	2.0715	ng	
56) 2-Chloronaphthalene	7.782	162	11760m	2.1082	ng	
57) 1,4-Dimethylnaphthalene	8.060	156	9808	2.0564	ng	83
58) Dimethylnaphthalenes (...	8.060	156	9808	2.0564	ng	83
59) Diphenyl Ether	7.846	170	9214	2.3320	ng	75
60) 2-Nitroaniline	7.856	65	3639	2.1322	ng	62
61) Coumarin	8.044	146	4740	1.8771	ng	82
62) Acenaphthylene	8.140	152	18926	2.1948	ng	97
63) Dimethylphthalate	8.001	163	13600	2.1265	ng	98
64) 2,6-Dinitrotoluene	8.060	165	2558	1.8370	ng	70
65) Acenaphthene	8.295	153	13057	2.3259	ng	93

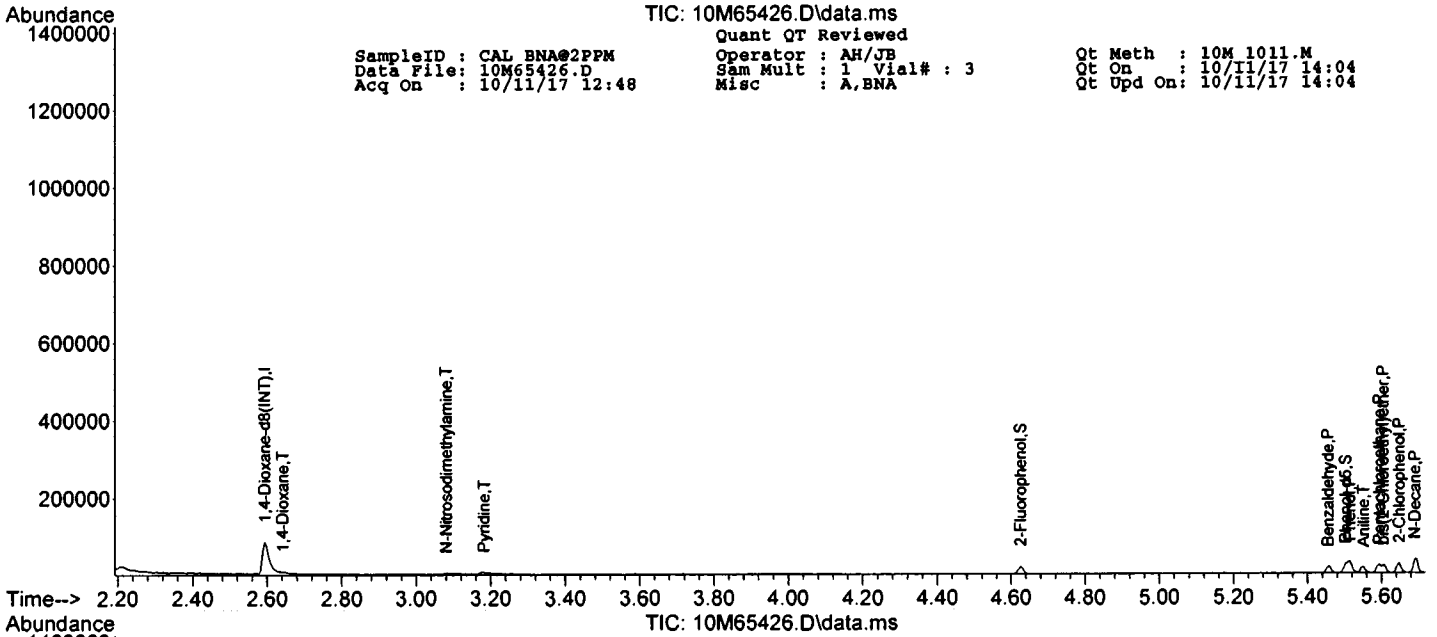
Quantitation Report (QT Reviewed)

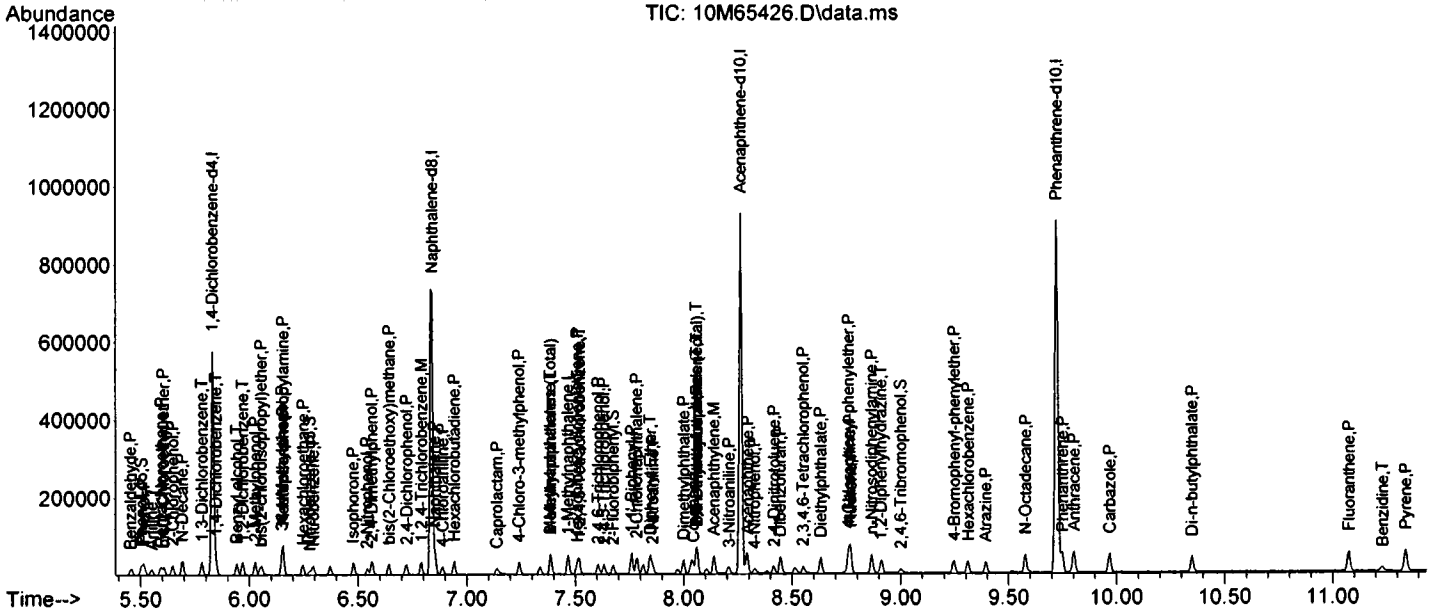
SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65426.D Sam Mult : 1 Vial# : 3 Qt On : 10/11/17 14:04
Acq On : 10/11/17 12:48 Misc : A,BNA Qt Upd On: 10/11/17 14:04

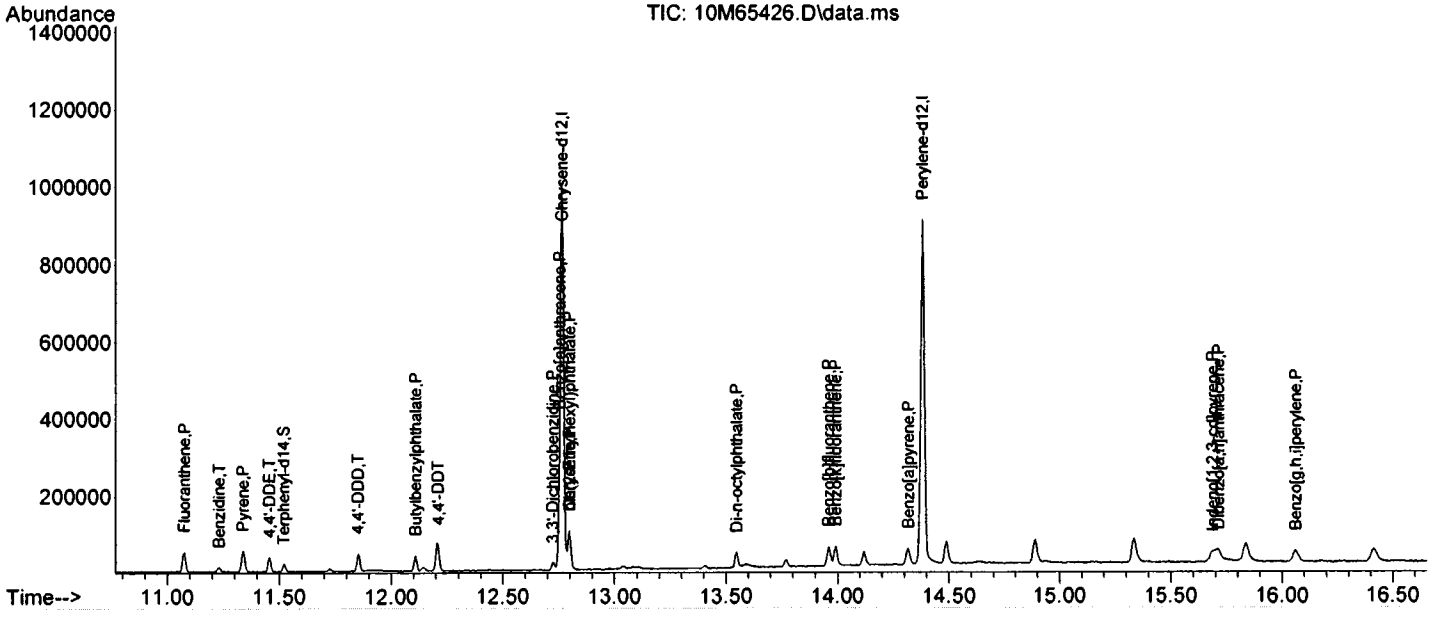
Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.209	138	2722	1.9354	ng	65
67)	2,4-Dinitrophenol	0.000		0	N.D.		
68)	Dibenzofuran	8.445	168	17681	2.1377	ng	89
69)	2,4-Dinitrotoluene	8.418	165	3215	1.6668	ng	62
70)	4-Nitrophenol	8.327	65	1899	1.6190	ng	95
71)	2,3,4,6-Tetrachlorophenol	8.552	232	3167	1.9081	ng	80
72)	Fluorene	8.771	166	14283	2.1959	ng	98
73)	4-Chlorophenyl-phenyle...	8.760	204	6257	1.9648	ng	84
74)	Diethylphthalate	8.632	149	15150	2.4061	ng	93
75)	4-Nitroaniline	8.766	138	3370	1.8938	ng	78
76)	Atrazine	9.391	200	3306	2.5806	ng	94
78)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
79)	n-Nitrosodiphenylamine	8.867	169	12324	2.1570	ng	98
81)	1,2-Diphenylhydrazine	8.910	77	11924	2.0040	ng	85
82)	4-Bromophenyl-phenylether	9.247	248	4103	2.0788	ng	77
83)	Hexachlorobenzene	9.311	284	4133	1.9203	ng	61
84)	N-Octadecane	9.579	57	8549	2.3558	ng	95
85)	Pentachlorophenol	0.000		0	N.D. d		
86)	Phenanthrene	9.750	178	23266	2.3138	ng	95
87)	Anthracene	9.803	178	22289	2.2153	ng	99
88)	Carbazole	9.969	167	20391	2.1656	ng	96
89)	Di-n-butylphthalate	10.349	149	22029	1.9775	ng	97
90)	Fluoranthene	11.076	202	22774	2.1062	ng	92
92)	Pyrene	11.338	202	24327	2.1613	ng	87
93)	Benzidine	11.231	184	5923	0.9835	ng	89
95)	4,4'-DDE	11.456	246	4745	1.8917	ng	91
96)	4,4'-DDD	11.852	235	8431	1.8385	ng	93
97)	Butylbenzylphthalate	12.109	149	9782	1.9472	ng	70
98)	4,4'-DDT	12.210	235	6234	1.5901	ng	99
99)	3,3'-Dichlorobenzidine	12.724	252	5177	1.4779	ng	96
100)	Benzo[a]anthracene	12.756	228	23755	2.2118	ng	99
101)	Chrysene	12.799	228	22233	2.1238	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.799	149	13261	2.1208	ng	98
104)	Di-n-octylphthalate	13.547	149	21117	1.7612	ng	98
105)	Benzo[b]fluoranthene	13.959	252	21542	2.0177	ng	96
106)	Benzo[k]fluoranthene	13.991	252	22012m	2.0898	ng	
107)	Benzo[a]pyrene	14.318	252	20545	1.9890	ng	90
108)	Indeno[1,2,3-cd]pyrene	15.687	276	22172	1.8849	ng	81
109)	Dibenzo[a,h]anthracene	15.714	278	18451	1.8460	ng	86
110)	Benzo[g,h,i]perylene	16.061	276	20285	2.0158	ng	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65426.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@2PPM
Data File: 10M65426.D
Acq On : 10/11/17 12:48
Operator : AH/JB
Sam Mult : 1 Vial# : 3
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 14:04
Qt Upd On: 10/11/17 14:04
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 10M65426.D\data.ms
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
bis(2-Chloroethoxy)methane,P
2,4-Dichlorophenol,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
Dimethylphthalate,P
Diethylphthalate,P
2,3,4,6-Tetrachlorophenol,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
N-Octadecane,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 10M65426.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
3,3'-Dichlorobenzidine,P
Chrysene-d12,I
Di-n-octylphthalate,P
Benzo[b]fluoranthene,P
Benzo[k]fluoranthene,P
Benzo[a]pyrene,P
Perylene-d12,I
Indeno[1,2,3-cd]pyrene,P
Dibenz[a,h]anthracene,P
Benzo[g,h,i]perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM
Data File: 10M65434.D
Acq On : 10/11/17 15:51

Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA

Qt Meth : 10M_1011.M
Qt On : 10/11/17 16:10
Qt Upd On: 10/11/17 15:27

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	34604	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.829	152	82858	40.00	ng	0.00
31) Naphthalene-d8	6.835	136	312202	40.00	ng	0.00
50) Acenaphthene-d10	8.263	164	188948	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	329666	40.00	ng	0.00
91) Chrysene-d12	12.767	240	377792	40.00	ng	0.00
103) Perylene-d12	14.382	264	341767	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.626	112	19319	8.68	ng	0.00
Spiked Amount 100.000			Recovery = 8.68%			
16) Phenol-d5	5.503	99	24038	8.09	ng	0.00
Spiked Amount 100.000			Recovery = 8.09%			
32) Nitrobenzene-d5	6.279	128	5086	3.80	ng	0.00
Spiked Amount 50.000			Recovery = 7.60%			
55) 2-Fluorobiphenyl	7.675	172	26035	4.04	ng	0.00
Spiked Amount 50.000			Recovery = 8.08%			
80) 2,4,6-Tribromophenol	9.001	330	7246	7.95	ng	0.00
Spiked Amount 100.000			Recovery = 7.95%			
94) Terphenyl-d14	11.520	244	24531	4.22	ng	0.00
Spiked Amount 50.000			Recovery = 8.44%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.636	88	8538	9.6319	ng	73
9) Pyridine	3.134	79	18943	8.2185	ng	85
10) N-Nitrosodimethylamine	3.048	74	10753	8.3274	ng	95
12) Benzaldehyde	5.455	77	10423	26.3381	ng	74
13) Aniline	5.551	93	19515	6.0331	ng	34
14) Pentachloroethane	5.594	117	6862	7.7022	ng	70
15) bis(2-Chloroethyl)ether	5.605	93	21433	8.6834	ng	83
17) Phenol	5.514	94	27719	8.3475	ng	85
18) 2-Chlorophenol	5.648	128	23833	9.0138	ng	78
19) N-Decane	5.690	57	24855	9.9654	ng	95
20) 1,3-Dichlorobenzene	5.781	146	26078	8.9302	ng	97
22) 1,4-Dichlorobenzene	5.845	146	27483	8.1684	ng	96
23) 1,2-Dichlorobenzene	5.968	146	25648	8.0986	ng	96
24) Benzyl alcohol	5.942	108	15055	8.1343	ng	65
25) bis(2-chloroisopropyl)...	6.054	45	36722	10.2716	ng	96
26) 2-Methylphenol	6.027	108	20501	7.5260	ng	92
27) Acetophenone	6.156	105	33253	9.1738	ng	66
28) Hexachloroethane	6.247	117	9313	7.7730	ng	91
29) N-Nitroso-di-n-propyla...	6.156	70	14844	8.0899	ng	89
30) 3&4-Methylphenol	6.150	108	21502	8.0492	ng	97
33) Nitrobenzene	6.295	77	20686	7.6860	ng	73
34) Isophorone	6.477	82	38492	7.8956	ng	82
35) 2-Nitrophenol	6.541	139	11522	7.7557	ng	86
36) 2,4-Dimethylphenol	6.562	107	21441	7.6188	ng	86
37) Benzoic Acid	6.605	105	4192m	1.4183	ng	
38) bis(2-Chloroethoxy)met...	6.642	93	25666	8.1868	ng	97
39) 2,4-Dichlorophenol	6.723	162	19147	7.3710	ng	84
40) 1,2,4-Trichlorobenzene	6.792	180	21836	8.2261	ng	96
41) Naphthalene	6.851	128	72582	8.1895	ng	99
42) 4-Chloroaniline	6.888	127	17291	4.8852	ng	93
43) Hexachlorobutadiene	6.942	225	12207	8.0622	ng	97
44) Caprolactam	7.145	113	7663	8.7296	ng	70
45) 4-Chloro-3-methylphenol	7.241	107	17533	7.3851	ng	78
46) 2-Methylnaphthalene	7.386	142	48031	8.1193	ng	97
47) 1-Methylnaphthalene	7.466	142	48413	8.4712	ng	96
48) Methylnaphthalenes (To...	7.466	142	96263m	16.5860	ng	
49) 1,1'-Biphenyl	7.760	154	57732	7.4470	ng	93
51) 1,2,4,5-Tetrachloroben...	7.520	216	23385	9.0240	ng	97
52) Hexachlorocyclopentadiene	7.509	237	11971	7.9466	ng	98
53) 2,4,6-Trichlorophenol	7.605	196	13913m	8.1942	ng	
54) 2,4,5-Trichlorophenol	7.632	196	15071m	8.4505	ng	
56) 2-Chloronaphthalene	7.782	162	44129m	8.2399	ng	
57) 1,4-Dimethylnaphthalene	8.065	156	36000	7.8617	ng	84
58) Dimethylnaphthalenes (...	8.065	156	36000	7.8617	ng	84
59) Diphenyl Ether	7.846	170	34197	9.0150	ng	73
60) 2-Nitroaniline	7.856	65	14063	8.5825	ng	48
61) Coumarin	8.044	146	18295	7.5464	ng	84
62) Acenaphthylene	8.140	152	71414	8.6261	ng	99
63) Dimethylphthalate	8.001	163	49827	8.1148	ng	98
64) 2,6-Dinitrotoluene	8.060	165	11400	8.5271	ng	57
65) Acenaphthene	8.295	153	47932	8.8933	ng	97

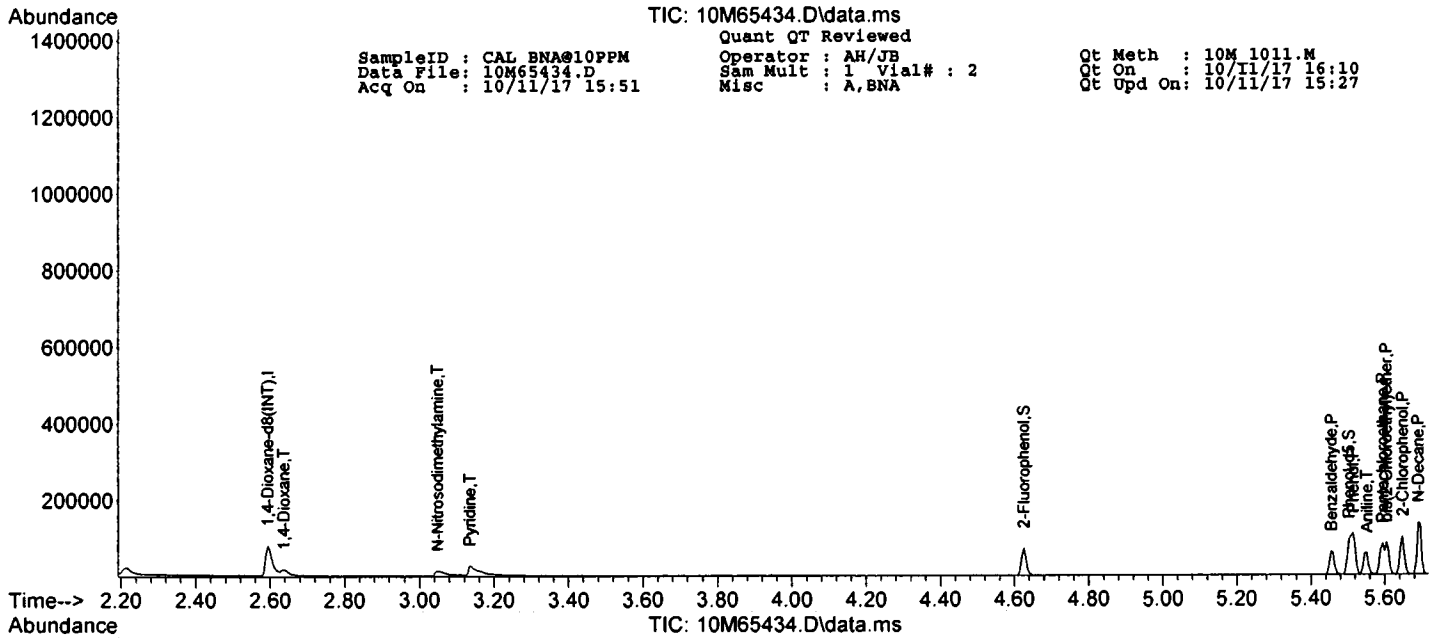
Quantitation Report (QT Reviewed)

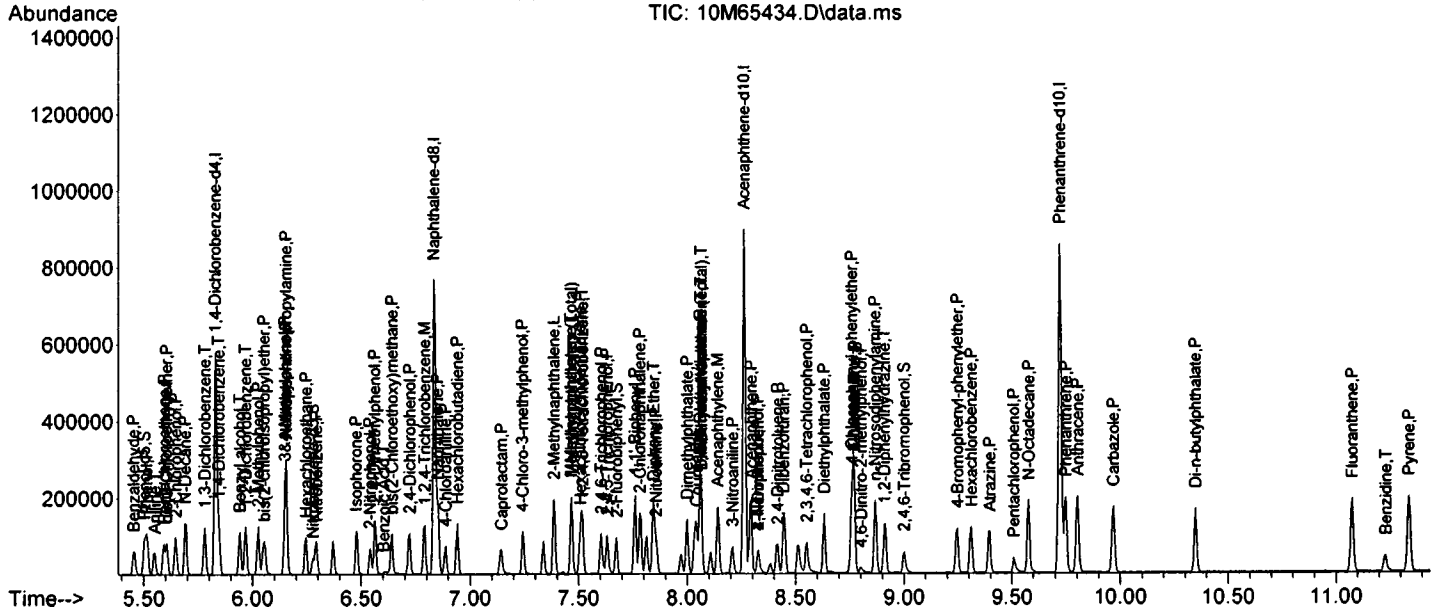
SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65434.D Sam Mult : 1 Vial# : 2 Qt On : 10/11/17 16:10
Acq On : 10/11/17 15:51 Misc : A,BNA Qt Upd On: 10/11/17 15:27

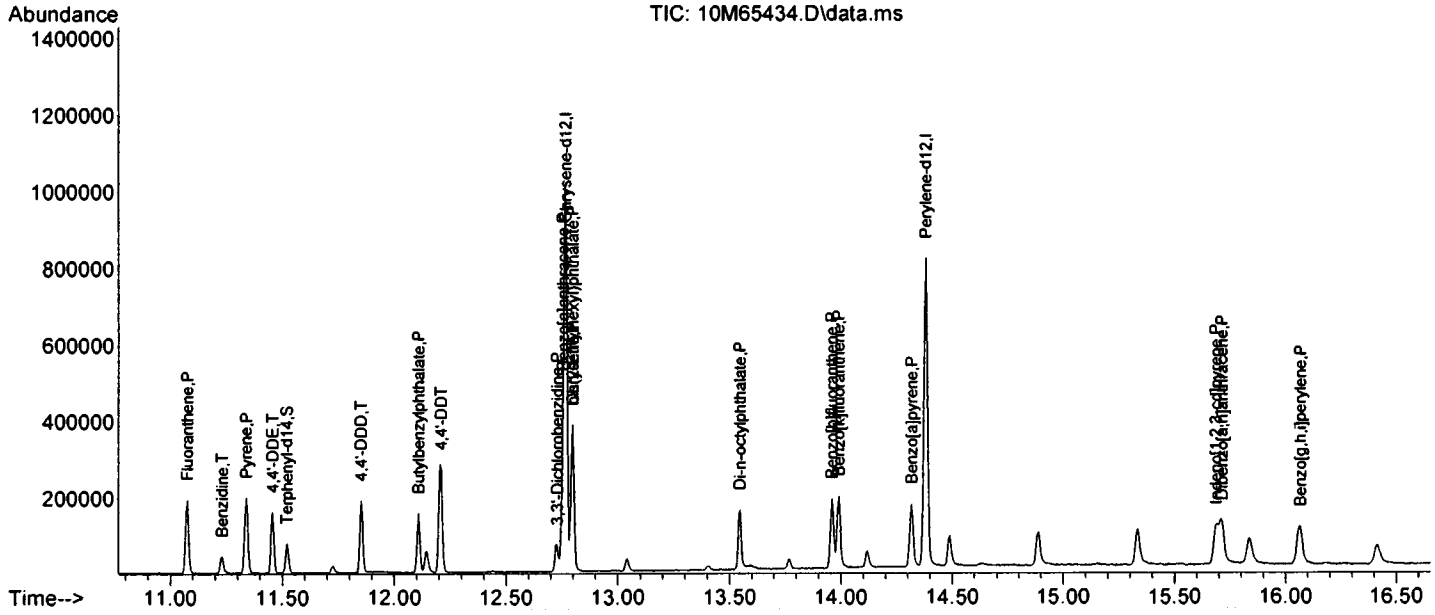
Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) 3-Nitroaniline	8.210	138	10770	7.9759	ng	73
67) 2,4-Dinitrophenol	8.327	184	597	0.8994	ng	1
68) Dibenzofuran	8.445	168	65750	8.3043	ng	86
69) 2,4-Dinitrotoluene	8.418	165	13852	7.4802	ng	55
70) 4-Nitrophenol	8.327	65	7792	6.9254	ng	92
71) 2,3,4,6-Tetrachlorophenol	8.552	232	12797	8.0307	ng	81
72) Fluorene	8.771	166	53711	8.6011	ng	97
73) 4-Chlorophenyl-phenyle...	8.760	204	24801	8.1117	ng	82
74) Diethylphthalate	8.632	149	50896	8.4193	ng	96
75) 4-Nitroaniline	8.771	138	14509	8.4925	ng	66
76) Atrazine	9.397	200	12901	10.4889	ng	92
78) 4,6-Dinitro-2-methylph...	8.803	198	3151	3.0658	ng	79
79) n-Nitrosodiphenylamine	8.867	169	44670	8.2952	ng	97
81) 1,2-Diphenylhydrazine	8.910	77	47356	8.4445	ng	80
82) 4-Bromophenyl-phenylether	9.247	248	14460	7.7733	ng	85
83) Hexachlorobenzene	9.311	284	16056	7.9152	ng	64
84) N-Octadecane	9.579	57	32146	9.3989	ng	93
85) Pentachlorophenol	9.509	266	6098	5.7813	ng	94
86) Phenanthrene	9.750	178	81631	8.6134	ng	99
87) Anthracene	9.803	178	81574	8.6022	ng	100
88) Carbazole	9.969	167	75067	8.4587	ng	97
89) Di-n-butylphthalate	10.349	149	82870	7.9104	ng	97
90) Fluoranthene	11.076	202	84610	8.3025	ng	88
92) Pyrene	11.338	202	89759	8.2956	ng	86
93) Benzidine	11.231	184	21818	3.7808	ng	91
95) 4,4'-DDE	11.456	246	17721	7.3491	ng	92
96) 4,4'-DDD	11.852	235	34004	7.7136	ng	95
97) Butylbenzylphthalate	12.109	149	36461	7.5567	ng	70
98) 4,4'-DDT	12.210	235	27863	7.3929	ng	98
99) 3,3'-Dichlorobenzidine	12.729	252	18912	5.6437	ng	98
100) Benzo[a]anthracene	12.756	228	83098	8.0484	ng	98
101) Chrysene	12.799	228	82624	8.2101	ng	99
102) bis(2-Ethylhexyl)phtha...	12.799	149	53664	8.9275	ng	95
104) Di-n-octylphthalate	13.547	149	82721	7.4703	ng	100
105) Benzo[b]fluoranthene	13.959	252	75554m	7.6570	ng	
106) Benzo[k]fluoranthene	13.991	252	83492	8.5766	ng	93
107) Benzo[a]pyrene	14.318	252	74334	7.7863	ng	93
108) Indeno[1,2,3-cd]pyrene	15.687	276	81812	7.5253	ng	80
109) Dibenzo[a,h]anthracene	15.714	278	69224	7.4934	ng	91
110) Benzo[g,h,i]perylene	16.067	276	72041	7.7458	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 10M65434.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@10PPM
Data File: 10M65434.D
Acq On : 10/11/17 15:51
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 16:10
Qt Upd On: 10/11/17 15:27
Abundance
Time-->


TIC: 10M65434.D\data.ms
Abundance
Time-->


TIC: 10M65434.D\data.ms
Abundance
Time-->

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65432.D Sam Mult : 1 Vial# : 9 Qt On : 10/11/17 15:28
Acq On : 10/11/17 15:01 Misc : A,BNA Qt Upd On: 10/11/17 15:27

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.599	96	34701	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	79941	40.00	ng	0.00
31) Naphthalene-d8	6.835	136	312842	40.00	ng	0.00
50) Acenaphthene-d10	8.263	164	183746	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	327149	40.00	ng	0.00
91) Chrysene-d12	12.766	240	364074	40.00	ng	0.00
103) Perylene-d12	14.382	264	344269	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.626	112	43714	19.59	ng	0.00
Spiked Amount 100.000			Recovery = 19.59%			
16) Phenol-d5	5.508	99	53746	18.04	ng	0.00
Spiked Amount 100.000			Recovery = 18.04%			
32) Nitrobenzene-d5	6.279	128	11379	8.48	ng	0.00
Spiked Amount 50.000			Recovery = 16.96%			
55) 2-Fluorobiphenyl	7.675	172	58088	9.27	ng	0.00
Spiked Amount 50.000			Recovery = 18.54%			
80) 2,4,6-Tribromophenol	9.001	330	17664	19.37	ng	0.00
Spiked Amount 100.000			Recovery = 19.37%			
94) Terphenyl-d14	11.520	244	55065	9.83	ng	0.00
Spiked Amount 50.000			Recovery = 19.66%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.636	88	18539	20.8634	ng	78
9) Pyridine	3.118	79	42966	18.5890	ng	91
10) N-Nitrosodimethylamine	3.043	74	24225	18.6014	ng	86
12) Benzaldehyde	5.455	77	23612	59.4988	ng	69
13) Aniline	5.551	93	55228	17.0261	ng	36
14) Pentachloroethane	5.594	117	15828	17.7164	ng	70
15) bis(2-Chloroethyl)ether	5.610	93	45783	18.4967	ng	82
17) Phenol	5.519	94	61667	18.5188	ng	85
18) 2-Chlorophenol	5.647	128	53100	20.0267	ng	77
19) N-Decane	5.696	57	53961	21.5747	ng	94
20) 1,3-Dichlorobenzene	5.781	146	56886	19.4258	ng	96
22) 1,4-Dichlorobenzene	5.845	146	59256	18.2545	ng	97
23) 1,2-Dichlorobenzene	5.968	146	56005	18.3294	ng	98
24) Benzyl alcohol	5.942	108	32555	18.2315	ng	67
25) bis(2-chloroisopropyl)...	6.054	45	80120	23.2284	ng	97
26) 2-Methylphenol	6.027	108	44518	16.9928	ng	99
27) Acetophenone	6.156	105	73399	20.9882	ng	68
28) Hexachloroethane	6.247	117	21263	18.3945	ng	91
29) N-Nitroso-di-n-propyla...	6.156	70	33257	18.7864	ng	89
30) 3&4-Methylphenol	6.150	108	48547	18.8364	ng	98
33) Nitrobenzene	6.295	77	46637	17.2927	ng	74
34) Isophorone	6.482	82	86404	17.6873	ng	76
35) 2-Nitrophenol	6.541	139	27802	18.6758	ng	84
36) 2,4-Dimethylphenol	6.567	107	48543	17.2829	ng	84
37) Benzoic Acid	6.616	105	30682	10.2401	ng	83
38) bis(2-Chloroethoxy)met...	6.642	93	58036	18.4740	ng	96
39) 2,4-Dichlorophenol	6.723	162	43910	16.9699	ng	79
40) 1,2,4-Trichlorobenzene	6.792	180	48649	18.2897	ng	95
41) Naphthalene	6.856	128	163306	18.5365	ng	99
42) 4-Chloroaniline	6.888	127	46855	13.4608	ng	95
43) Hexachlorobutadiene	6.942	225	26483	17.4551	ng	98
44) Caprolactam	7.150	113	17685	19.9691	ng	70
45) 4-Chloro-3-methylphenol	7.247	107	40445	17.0011	ng	60
46) 2-Methylnaphthalene	7.386	142	111187	18.7569	ng	98
47) 1-Methylnaphthalene	7.466	142	104017	18.1635	ng	91
48) Methylnaphthalenes (To...	7.386	142	216154m	37.1669	ng	
49) 1,1'-Biphenyl	7.760	154	127821	16.4542	ng	93
51) 1,2,4,5-Tetrachloroben...	7.519	216	51361	20.3808	ng	97
52) Hexachlorocyclopentadiene	7.509	237	28681	19.4909	ng	100
53) 2,4,6-Trichlorophenol	7.605	196	31596m	19.1355	ng	
54) 2,4,5-Trichlorophenol	7.632	196	33556m	19.3480	ng	
56) 2-Chloronaphthalene	7.782	162	98071m	18.8306	ng	
57) 1,4-Dimethylnaphthalene	8.065	156	80884	18.1636	ng	82
58) Dimethylnaphthalenes (...	8.065	156	80884	18.1636	ng	82
59) Diphenyl Ether	7.846	170	75222	20.3913	ng	74
60) 2-Nitroaniline	7.856	65	32814	20.5930	ng	56
61) Coumarin	8.044	146	41693	17.6846	ng	86
62) Acenaphthylene	8.140	152	155925	19.3674	ng	99
63) Dimethylphthalate	8.001	163	111286	18.6371	ng	98
64) 2,6-Dinitrotoluene	8.060	165	26321	20.2451	ng	58
65) Acenaphthene	8.295	153	102208	19.5005	ng	96

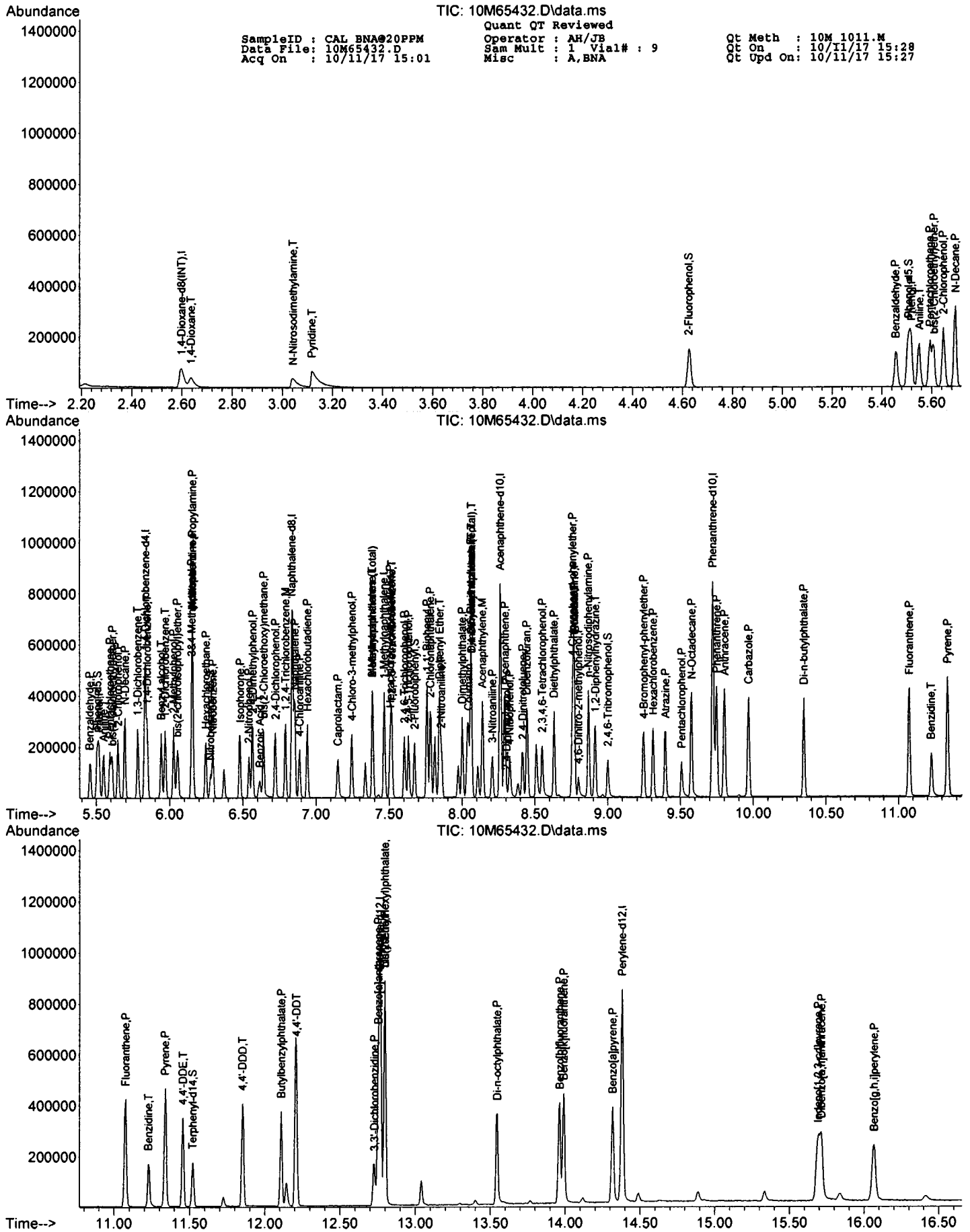
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65432.D Sam Mult : 1 Vial# : 9 Qt On : 10/11/17 15:28
Acq On : 10/11/17 15:01 Misc : A,BNA Qt Upd On: 10/11/17 15:27

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) 3-Nitroaniline	8.209	138	25902	19.7252	ng	66
67) 2,4-Dinitrophenol	8.306	184	5923	9.0385	ng	30
68) Dibenzofuran	8.445	168	146156	19.0815	ng	85
69) 2,4-Dinitrotoluene	8.418	165	33458	18.5791	ng	57
70) 4-Nitrophenol	8.327	65	20025	18.3382	ng	84
71) 2,3,4,6-Tetrachlorophenol	8.552	232	29653	19.1354	ng	79
72) Fluorene	8.771	166	117499	19.3486	ng	99
73) 4-Chlorophenyl-phenyle...	8.760	204	54563	18.3512	ng	80
74) Diethylphthalate	8.632	149	113057	19.2315	ng	97
75) 4-Nitroaniline	8.771	138	32924	19.8168	ng	68
76) Atrazine	9.397	200	30350	25.3741	ng	94
78) 4,6-Dinitro-2-methylph...	8.798	198	12994	12.5902	ng	60
79) n-Nitrosodiphenylamine	8.867	169	102076	19.1014	ng	99
81) 1,2-Diphenylhydrazine	8.915	77	102321	18.3862	ng	75
82) 4-Bromophenyl-phenylether	9.247	248	33247	18.0102	ng	81
83) Hexachlorobenzene	9.311	284	34126	16.9526	ng	66
84) N-Octadecane	9.579	57	73492	21.6531	ng	92
85) Pentachlorophenol	9.509	266	17466	16.4540	ng	95
86) Phenanthrene	9.750	178	177850	18.9106	ng	99
87) Anthracene	9.803	178	180150	19.1434	ng	99
88) Carbazole	9.969	167	168097	19.0872	ng	97
89) Di-n-butylphthalate	10.349	149	191998	18.5415	ng	97
90) Fluoranthene	11.076	202	188538	18.6430	ng	90
92) Pyrene	11.338	202	201614	19.3353	ng	86
93) Benzidine	11.226	184	73963	13.4494	ng	87
95) 4,4'-DDE	11.456	246	38695	16.6519	ng	91
96) 4,4'-DDD	11.852	235	78060	18.3746	ng	95
97) Butylbenzylphthalate	12.109	149	88122	18.9867	ng	69
98) 4,4'-DDT	12.210	235	64737	17.8239	ng	98
99) 3,3'-Dichlorobenzidine	12.729	252	41690	13.0227	ng	96
100) Benzo[a]anthracene	12.756	228	180461	18.1370	ng	97
101) Chrysene	12.799	228	181790	18.7447	ng	96
102) bis(2-Ethylhexyl)phtha...	12.799	149	124951	21.5700	ng	96
104) Di-n-octylphthalate	13.547	149	200433	17.9941	ng	100
105) Benzo[b]fluoranthene	13.965	252	170925m	17.1965	ng	
106) Benzo[k]fluoranthene	13.991	252	182067	18.5667	ng	93
107) Benzo[a]pyrene	14.318	252	170388	17.7179	ng	94
108) Indeno[1,2,3-cd]pyrene	15.692	276	185149	16.9068	ng	82
109) Dibenzo[a,h]anthracene	15.714	278	155573	16.7182	ng	90
110) Benzo[g,h,i]perylene	16.067	276	157519	16.8132	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65432.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@20PPM
Data File: 10M65432.D
Acq On : 10/11/17 15:01
Operator : AH/JB
Sam Mult : 1 Vial# : 9
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 15:28
Qt Upd On: 10/11/17 15:27
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time-->
Abundance
TIC: 10M65432.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Acenaphthene-d10,I
Phenanthrene-d10,I
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->
Abundance
TIC: 10M65432.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Perylene-d12,I
Benzo[a]pyrene,P
Benzo[g,h,i]perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65430.D Sam Mult : 1 Vial# : 7 Qt On : 10/11/17 14:35
Acq On : 10/11/17 14:17 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	37964	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	88373	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	332936	40.00	ng	0.00
50) Acenaphthene-d10	8.268	164	199190	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	334028	40.00	ng	0.00
91) Chrysene-d12	12.772	240	376074	40.00	ng	0.00
103) Perylene-d12	14.382	264	329816	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.631	112	202626	82.99	ng	0.00
Spiked Amount 100.000			Recovery = 82.99%			
16) Phenol-d5	5.514	99	251212	77.08	ng	0.00
Spiked Amount 100.000			Recovery = 77.08%			
32) Nitrobenzene-d5	6.284	128	52879	37.02	ng	0.00
Spiked Amount 50.000			Recovery = 74.04%			
55) 2-Fluorobiphenyl	7.675	172	247621	36.46	ng	0.00
Spiked Amount 50.000			Recovery = 72.92%			
80) 2,4,6-Tribromophenol	9.006	330	75422	77.71	ng	0.00
Spiked Amount 100.000			Recovery = 77.71%			
94) Terphenyl-d14	11.526	244	233490	40.34	ng	0.00
Spiked Amount 50.000			Recovery = 80.68%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.631	88	77689	80.0673	ng	78
9) Pyridine	3.096	79	205171	81.1365	ng	87
10) N-Nitrosodimethylamine	3.032	74	114352	77.7103	ng	89
12) Benzaldehyde	5.460	77	96228	221.6395	ng	66
13) Aniline	5.551	93	317219	89.3890	ng	33
14) Pentachloroethane	5.594	117	73596	75.2963	ng	75
15) bis(2-Chloroethyl)ether	5.610	93	203334	75.0878	ng	84
17) Phenol	5.524	94	283633	77.8552	ng	84
18) 2-Chlorophenol	5.653	128	233345	80.4419	ng	75
19) N-Decane	5.696	57	236262	86.3435	ng	94
20) 1,3-Dichlorobenzene	5.787	146	254582	79.4641	ng	96
22) 1,4-Dichlorobenzene	5.845	146	263554	73.4442	ng	97
23) 1,2-Dichlorobenzene	5.968	146	248668	73.6191	ng	96
24) Benzyl alcohol	5.947	108	145541	73.7294	ng	67
25) bis(2-chloroisopropyl)...	6.054	45	344312	90.2984	ng	99
26) 2-Methylphenol	6.033	108	199870	70.2685	ng	96
27) Acetophenone	6.161	105	304642	78.7998	ng	67
28) Hexachloroethane	6.247	117	95011	74.3513	ng	87
29) N-Nitroso-di-n-propyla...	6.161	70	140329	71.7062	ng	83
30) 3&4-Methylphenol	6.156	108	209930	73.6819	ng	98
33) Nitrobenzene	6.300	77	206857	72.0719	ng	68
34) Isophorone	6.482	82	373717	71.8844	ng	82
35) 2-Nitrophenol	6.546	139	127088	80.2181	ng	80
36) 2,4-Dimethylphenol	6.567	107	207493	70.9987	ng	86
37) Benzoic Acid	6.664	105	216991	63.6117	ng	79
38) bis(2-Chloroethoxy)met...	6.642	93	241605	72.2661	ng	95
39) 2,4-Dichlorophenol	6.723	162	196750	74.0768	ng	85
40) 1,2,4-Trichlorobenzene	6.792	180	210977	74.5302	ng	97
41) Naphthalene	6.856	128	674178m	75.2302	ng	
42) 4-Chloroaniline	6.888	127	241917m	75.6972	ng	
43) Hexachlorobutadiene	6.942	225	116512	72.1589	ng	97
44) Caprolactam	7.177	113	79182	81.0308	ng	68
45) 4-Chloro-3-methylphenol	7.252	107	185142	73.1275	ng	66
46) 2-Methylnaphthalene	7.391	142	474242	75.1746	ng	98
47) 1-Methylnaphthalene	7.471	142	466121	76.4820	ng	94
48) Methylnaphthalenes (To...	7.391	142	935438m	151.1377	ng	
49) 1,1'-Biphenyl	7.760	154	534809	64.6901	ng	93
51) 1,2,4,5-Tetrachloroben...	7.519	216	229352	83.9537	ng	97
52) Hexachlorocyclopentadiene	7.509	237	143636	87.7355	ng	98
53) 2,4,6-Trichlorophenol	7.605	196	141627	79.1233	ng	100
54) 2,4,5-Trichlorophenol	7.637	196	152549	81.1383	ng	98
56) 2-Chloronaphthalene	7.787	162	424471	75.1833	ng	89
57) 1,4-Dimethylnaphthalene	8.065	156	348958	72.2876	ng	88
58) Dimethylnaphthalenes (...	8.065	156	348958	72.2876	ng	88
59) Diphenyl Ether	7.846	170	333101	83.2965	ng	77
60) 2-Nitroaniline	7.862	65	146572	84.8521	ng	51
61) Coumarin	8.049	146	172891	67.6479	ng	85
62) Acenaphthylene	8.145	152	683339	78.2966	ng	100
63) Dimethylphthalate	8.006	163	481037	74.3135	ng	98
64) 2,6-Dinitrotoluene	8.065	165	115933	82.2576	ng	59
65) Acenaphthene	8.295	153	442272	77.8395	ng	98

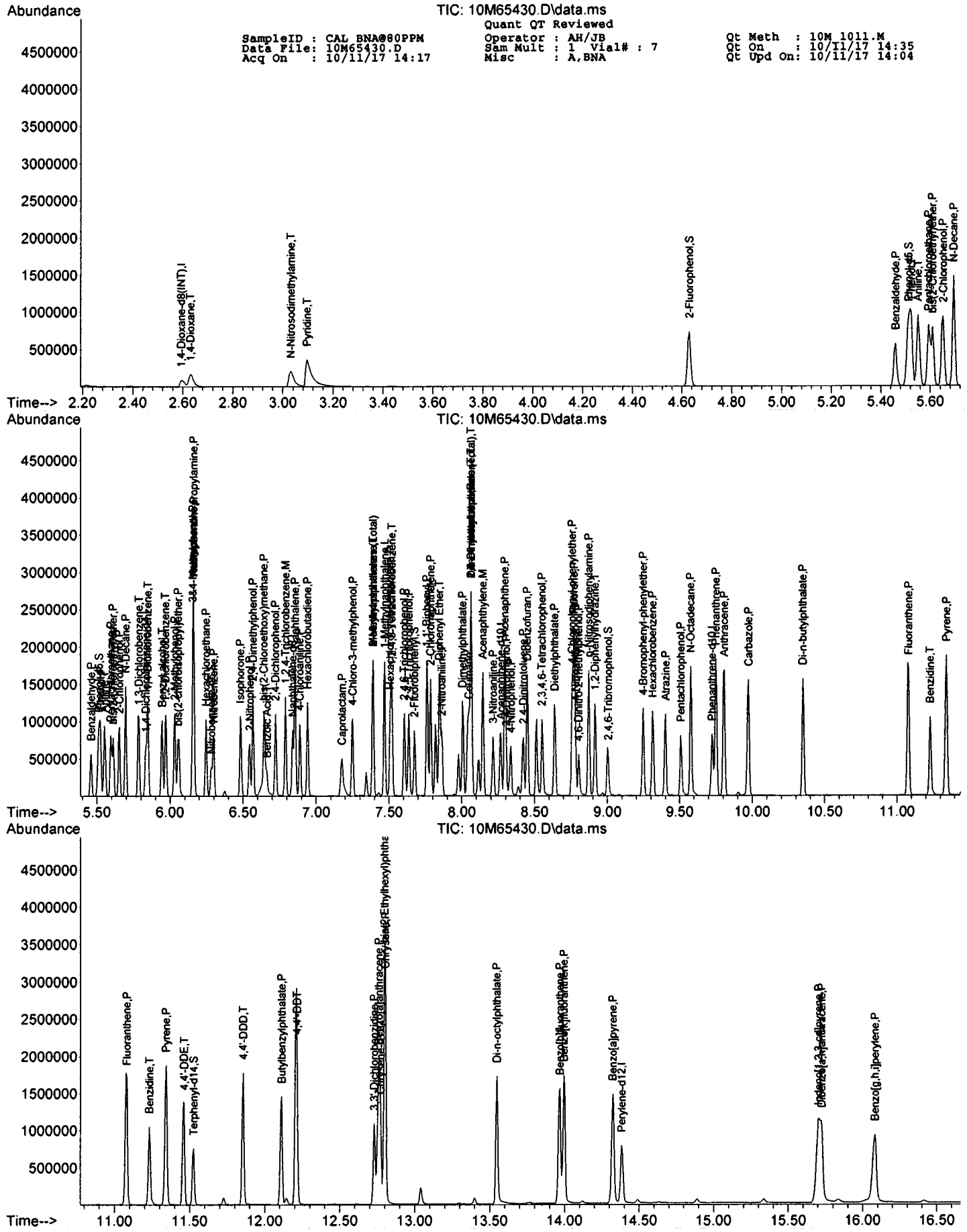
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65430.D Sam Mult : 1 Vial# : 7 Qt On : 10/11/17 14:35
Acq On : 10/11/17 14:17 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.215	138	125140	87.9094	ng	68
67)	2,4-Dinitrophenol	8.306	184	58846	74.0140	ng	37
68)	Dibenzofuran	8.450	168	631943	78.3557	ng	85
69)	2,4-Dinitrotoluene	8.423	165	151871	77.7947	ng	58
70)	4-Nitrophenol	8.338	65	91941m	78.4891	ng	
71)	2,3,4,6-Tetrachlorophenol	8.552	232	127855	76.1091	ng	82
72)	Fluorene	8.771	166	506533	76.9437	ng	98
73)	4-Chlorophenyl-phenyle...	8.760	204	235985	73.2153	ng	82
74)	Diethylphthalate	8.637	149	470909	73.8930	ng	96
75)	4-Nitroaniline	8.782	138	143600	79.7308	ng	70
76)	Atrazine	9.402	200	129061	99.5352	ng	94
78)	4,6-Dinitro-2-methylph...	8.803	198	82223	72.6425	ng	63
79)	n-Nitrosodiphenylamine	8.873	169	425600	78.0020	ng	97
81)	1,2-Diphenylhydrazine	8.915	77	424245	74.6630	ng	78
82)	4-Bromophenyl-phenylether	9.247	248	141654	75.1551	ng	83
83)	Hexachlorobenzene	9.311	284	150308	73.1300	ng	67
84)	N-Octadecane	9.579	57	308248	88.9494	ng	95
85)	Pentachlorophenol	9.509	266	97703	82.9487	ng	99
86)	Phenanthrene	9.750	178	744836	77.5664	ng	99
87)	Anthracene	9.809	178	760927	79.1938	ng	100
88)	Carbazole	9.975	167	696822	77.4939	ng	97
89)	Di-n-butylphthalate	10.349	149	832997	80.6549	ng	97
90)	Fluoranthene	11.082	202	809317	78.3788	ng	87
92)	Pyrene	11.344	202	874962	81.2336	ng	85
93)	Benzidine	11.231	184	436819	83.7502	ng	85
95)	4,4'-DDE	11.461	246	174728	72.7928	ng	92
96)	4,4'-DDD	11.857	235	328359	74.8263	ng	95
97)	Butylbenzylphthalate	12.114	149	383893	80.8819	ng	65
98)	4,4'-DDT	12.216	235	298646	79.6019	ng	98
99)	3,3'-Dichlorobenzidine	12.729	252	241206	79.1335	ng	95
100)	Benzo[a]anthracene	12.761	228	779679	75.8602	ng	99
101)	Chrysene	12.804	228	750545	74.9205	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.799	149	552382	92.3135	ng	95
104)	Di-n-octylphthalate	13.547	149	877080	82.9078	ng	100
105)	Benzo[b]fluoranthene	13.970	252	768851	80.7427	ng	93
106)	Benzo[k]fluoranthene	13.997	252	750387	79.8757	ng	94
107)	Benzo[a]pyrene	14.323	252	705803	76.6096	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.703	276	758837	72.3294	ng	96
109)	Dibenzo[a,h]anthracene	15.724	278	648119	72.7003	ng	90
110)	Benzo[g,h,i]perylene	16.083	276	642137	71.5436	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65430.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@80PPM
Data File: 10M65430.D
Acq On : 10/11/17 14:17
Operator : AH/JB
Sam Mult : 1 Vial# : 7
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 14:35
Qt Upd On: 10/11/17 14:04
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65429.D Sam Mult : 1 Vial# : 6 Qt On : 10/11/17 14:22
Acq On : 10/11/17 13:55 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.599	96	35608	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	82961	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	315332	40.00	ng	0.00
50) Acenaphthene-d10	8.268	164	193828	40.00	ng	0.00
77) Phenanthrene-d10	9.729	188	333927	40.00	ng	0.00
91) Chrysene-d12	12.772	240	367703	40.00	ng	0.00
103) Perylene-d12	14.387	264	327547	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.631	112	280981	122.70	ng	0.00
Spiked Amount 100.000			Recovery = 122.70%			
16) Phenol-d5	5.514	99	343150	112.26	ng	0.00
Spiked Amount 100.000			Recovery = 112.26%			
32) Nitrobenzene-d5	6.284	128	75790	56.02	ng	0.00
Spiked Amount 50.000			Recovery = 112.04%			
55) 2-Fluorobiphenyl	7.675	172	353769	53.53	ng	0.00
Spiked Amount 50.000			Recovery = 107.06%			
80) 2,4,6-Tribromophenol	9.006	330	115532	115.97	ng	0.00
Spiked Amount 100.000			Recovery = 115.97%			
94) Terphenyl-d14	11.526	244	329961	58.31	ng	0.00
Spiked Amount 50.000			Recovery = 116.62%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.631	88	110487	121.5659	ng	77
9) Pyridine	3.091	79	279482	117.8362	ng	87
10) N-Nitrosodimethylamine	3.032	74	161013	114.4039	ng	92
12) Benzaldehyde	5.460	77	113460	278.6204	ng	63
13) Aniline	5.551	93	432148	129.8320	ng	33
14) Pentachloroethane	5.594	117	101624	110.8512	ng	74
15) bis(2-Chloroethyl)ether	5.610	93	279128	109.8974	ng	84
17) Phenol	5.525	94	388274	113.6302	ng	87
18) 2-Chlorophenol	5.653	128	328656	120.7952	ng	76
19) N-Decane	5.696	57	319275	124.4014	ng	92
20) 1,3-Dichlorobenzene	5.787	146	354004	117.8083	ng	96
22) 1,4-Dichlorobenzene	5.845	146	366379	108.7587	ng	96
23) 1,2-Dichlorobenzene	5.974	146	346193	109.1778	ng	98
24) Benzyl alcohol	5.947	108	207852	112.1645	ng	66
25) bis(2-chloroisopropyl)...	6.059	45	471199	131.6370	ng	99
26) 2-Methylphenol	6.033	108	282393	107.1057	ng	95
27) Acetophenone	6.161	105	419963	115.7156	ng	75
28) Hexachloroethane	6.247	117	133903	111.6222	ng	87
29) N-Nitroso-di-n-propyla...	6.161	70	191070	104.0034	ng	82
30) 3&4-Methylphenol	6.161	108	289918	108.3944	ng	98
33) Nitrobenzene	6.300	77	280653	103.2425	ng	69
34) Isophorone	6.487	82	523483	106.3131	ng	77
35) 2-Nitrophenol	6.546	139	181122	120.7069	ng	80
36) 2,4-Dimethylphenol	6.568	107	291588	106.9778	ng	88
37) Benzoic Acid	6.674	105	323336	96.2414	ng	82
38) bis(2-Chloroethoxy)met...	6.648	93	336518	106.2747	ng	95
39) 2,4-Dichlorophenol	6.728	162	276496	112.7181	ng	82
40) 1,2,4-Trichlorobenzene	6.792	180	295277	110.1335	ng	97
41) Naphthalene	6.856	128	949754m	115.7184	ng	
42) 4-Chloroaniline	6.888	127	307630m	112.0476	ng	
43) Hexachlorobutadiene	6.942	225	163740	107.0697	ng	96
44) Caprolactam	7.188	113	108025	114.4919	ng	72
45) 4-Chloro-3-methylphenol	7.252	107	249240	103.9408	ng	70
46) 2-Methylnaphthalene	7.391	142	666540	111.5553	ng	99
47) 1-Methylnaphthalene	7.471	142	641439	111.1241	ng	94
48) Methylnaphthalenes (To...	7.391	142	1300929m	221.9239	ng	
49) 1,1'-Biphenyl	7.766	154	785390	100.3037	ng	92
51) 1,2,4,5-Tetrachloroben...	7.520	216	320539	120.5783	ng	98
52) Hexachlorocyclopentadiene	7.509	237	200766	124.3161	ng	99
53) 2,4,6-Trichlorophenol	7.605	196	198495	113.9617	ng	99
54) 2,4,5-Trichlorophenol	7.637	196	218308	119.3265	ng	97
56) 2-Chloronaphthalene	7.787	162	594217	108.1607	ng	90
57) 1,4-Dimethylnaphthalene	8.070	156	491564	104.6457	ng	86
58) Dimethylnaphthalenes (...	8.070	156	491564	104.6457	ng	86
59) Diphenyl Ether	7.846	170	469910	120.7582	ng	76
60) 2-Nitroaniline	7.867	65	202054	120.2071	ng	35
61) Coumarin	8.054	146	248692	99.9988	ng	85
62) Acenaphthylene	8.145	152	1000588	117.8184	ng	99
63) Dimethylphthalate	8.012	163	687782	109.1920	ng	98
64) 2,6-Dinitrotoluene	8.065	165	166711	121.5582	ng	66
65) Acenaphthene	8.300	153	627869	113.5614	ng	98

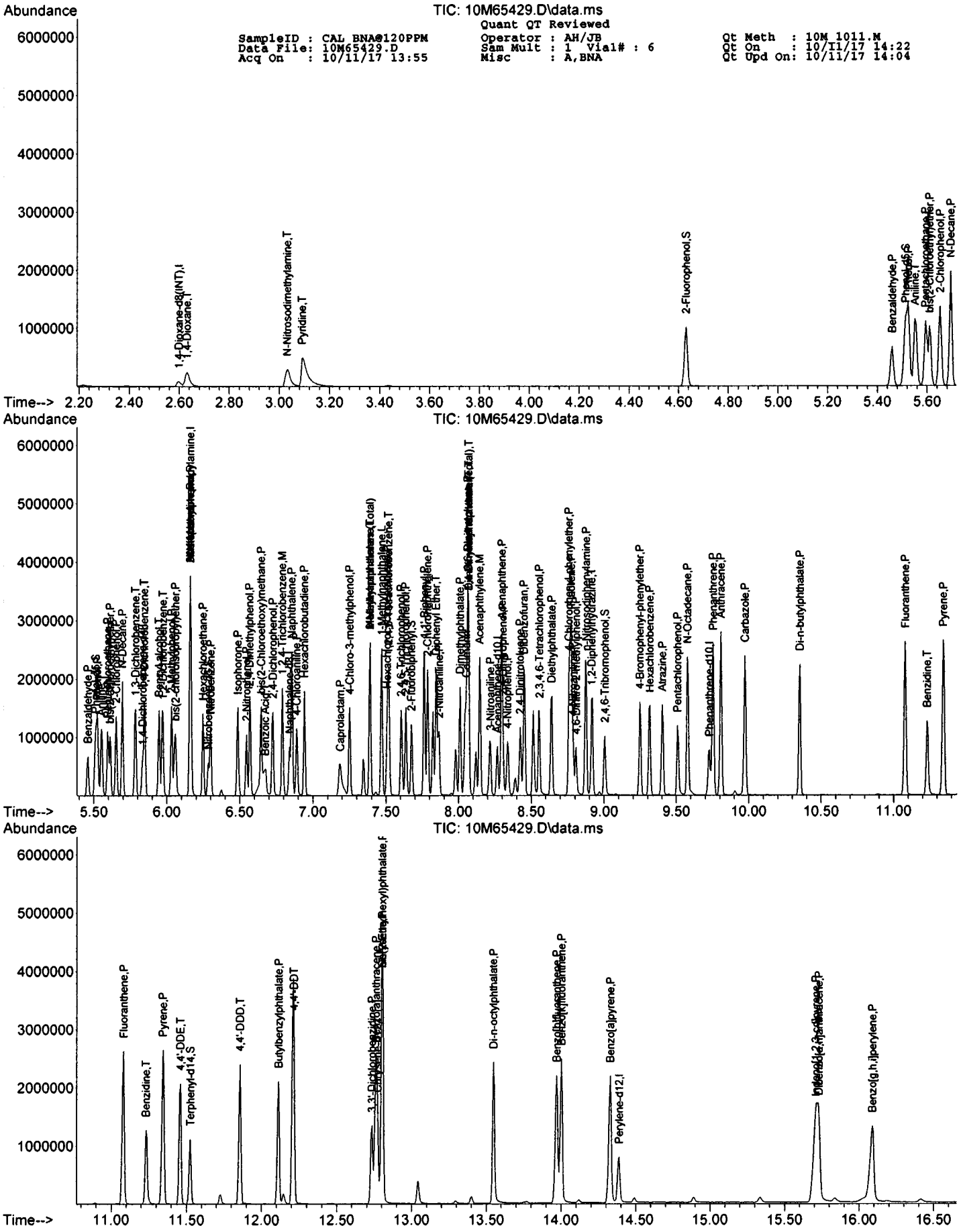
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65429.D Sam Mult : 1 Vial# : 6 Qt On : 10/11/17 14:22
Acq On : 10/11/17 13:55 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.220	138	166997	120.5588	ng	65
67)	2,4-Dinitrophenol	8.306	184	94702	114.7462	ng	41
68)	Dibenzofuran	8.450	168	906849	117.8747	ng	85
69)	2,4-Dinitrotoluene	8.423	165	217060	114.2631	ng	62
70)	4-Nitrophenol	8.338	65	132275m	116.8327	ng	
71)	2,3,4,6-Tetrachlorophenol	8.557	232	192493	117.7564	ng	82
72)	Fluorene	8.777	166	750570	117.1676	ng	98
73)	4-Chlorophenyl-phenyle...	8.760	204	355422	113.3216	ng	85
74)	Diethylphthalate	8.643	149	702788	113.3291	ng	96
75)	4-Nitroaniline	8.787	138	216660	123.6237	ng	71
76)	Atrazine	9.402	200	191251	151.5780	ng	96
78)	4,6-Dinitro-2-methylph...	8.809	198	129034	109.4109	ng	68
79)	n-Nitrosodiphenylamine	8.878	169	638268	117.0142	ng	97
81)	1,2-Diphenylhydrazine	8.916	77	691590	121.7500	ng	81
82)	4-Bromophenyl-phenylether	9.247	248	202880	107.6714	ng	85
83)	Hexachlorobenzene	9.317	284	217574	105.8892	ng	62
84)	N-Octadecane	9.579	57	437968	126.4202	ng	92
85)	Pentachlorophenol	9.509	266	145894	118.7878	ng	97
86)	Phenanthrene	9.755	178	1108534	115.4765	ng	99
87)	Anthracene	9.809	178	1139844	118.6656	ng	99
88)	Carbazole	9.975	167	1058548	117.7573	ng	97
89)	Di-n-butylphthalate	10.354	149	1191419	117.0183	ng	97
90)	Fluoranthene	11.082	202	1150892	111.4925	ng	88
92)	Pyrene	11.344	202	1250257	118.7195	ng	86
93)	Benzidine	11.232	184	554317	112.8632	ng	86
95)	4,4'-DDE	11.462	246	250668	106.8073	ng	93
96)	4,4'-DDD	11.857	235	465634	108.5241	ng	95
97)	Butylbenzylphthalate	12.114	149	545382	118.2417	ng	66
98)	4,4'-DDT	12.216	235	408241	111.2908	ng	99
99)	3,3'-Dichlorobenzidine	12.734	252	316372	110.6310	ng	95
100)	Benzo[a]anthracene	12.761	228	1102492	109.7109	ng	99
101)	Chrysene	12.804	228	1025499	104.6973	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.804	149	761268	130.1186	ng	92
104)	Di-n-octylphthalate	13.547	149	1281180	122.5984	ng	100
105)	Benzo[b]fluoranthene	13.970	252	1047722m	110.7911	ng	
106)	Benzo[k]fluoranthene	14.002	252	1028090	110.1942	ng	94
107)	Benzo[a]pyrene	14.328	252	1040946	113.7696	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.708	276	1128416	108.3013	ng	98
109)	Dibenzo[a,h]anthracene	15.730	278	952274	107.5577	ng	89
110)	Benzo[g,h,i]perylene	16.088	276	934519	104.8405	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65429.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@120PPM
Data File: 10M65429.D
Acq On : 10/11/17 13:55
Operator : AH/JB
Sam Mult : 1 Vial# : 6
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 14:22
Qt Upd On: 10/11/17 14:04
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time--> 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60
Abundance
TIC: 10M65429.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
Naphthalene,P
Hexachlorobutadiene,P
Diethylphthalate,P
2,3,4,6-Tetrachlorophenol,P
2,4,6-Tribromophenol,S
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time--> 5.50 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00 10.50 11.00
Abundance
TIC: 10M65429.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time--> 11.00 11.50 12.00 12.50 13.00 13.50 14.00 14.50 15.00 15.50 16.00 16.50

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65428.D Sam Mult : 1 Vial# : 5 Qt On : 10/11/17 14:08
Acq On : 10/11/17 13:33 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.599	96	36197	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	81920	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	310531	40.00	ng	0.00
50) Acenaphthene-d10	8.268	164	190542	40.00	ng	0.00
77) Phenanthrene-d10	9.728	188	323755	40.00	ng	0.00
91) Chrysene-d12	12.777	240	359216	40.00	ng	0.00
103) Perylene-d12	14.387	264	319956	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.631	112	375778	161.43	ng	0.00
Spiked Amount 100.000			Recovery = 161.43%			
16) Phenol-d5	5.514	99	476284	153.28	ng	0.00
Spiked Amount 100.000			Recovery = 153.28%			
32) Nitrobenzene-d5	6.284	128	100288	75.27	ng	0.00
Spiked Amount 50.000			Recovery = 150.54%			
55) 2-Fluorobiphenyl	7.675	172	473822	72.94	ng	0.00
Spiked Amount 50.000			Recovery = 145.88%			
80) 2,4,6-Tribromophenol	9.006	330	152552	153.96	ng	0.00
Spiked Amount 100.000			Recovery = 153.96%			
94) Terphenyl-d14	11.526	244	456332	82.54	ng	0.00
Spiked Amount 50.000			Recovery = 165.08%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.631	88	147702	160.0669	ng	78
9) Pyridine	3.091	79	382427	158.6165	ng	86
10) N-Nitrosodimethylamine	3.032	74	214386	147.2953	ng	91
12) Benzaldehyde	5.460	77	135748	327.9280	ng	67
13) Aniline	5.556	93	598665	176.9327	ng	34
14) Pentachloroethane	5.594	117	138426	148.5377	ng	74
15) bis(2-Chloroethyl)ether	5.615	93	393140	152.2671	ng	81
17) Phenol	5.530	94	542346	156.1374	ng	84
18) 2-Chlorophenol	5.653	128	452098	163.4616	ng	78
19) N-Decane	5.696	57	440990	169.0301	ng	93
20) 1,3-Dichlorobenzene	5.786	146	469134	153.5818	ng	96
22) 1,4-Dichlorobenzene	5.851	146	476080	143.1190	ng	98
23) 1,2-Dichlorobenzene	5.974	146	454530	145.1652	ng	98
24) Benzyl alcohol	5.947	108	273228	149.3174	ng	68
25) bis(2-chloroisopropyl)...	6.059	45	600408	169.8651	ng	99
26) 2-Methylphenol	6.032	108	370789	144.2749	ng	96
27) Acetophenone	6.166	105	535726	149.4884	ng	66
28) Hexachloroethane	6.246	117	174653	147.4416	ng	87
29) N-Nitroso-di-n-propyla...	6.166	70	242370	133.6035	ng	78
30) 3&4-Methylphenol	6.161	108	367010	138.9612	ng	99
33) Nitrobenzene	6.300	77	372457	139.1323	ng	72
34) Isophorone	6.487	82	702000	144.7720	ng	80
35) 2-Nitrophenol	6.546	139	240438	162.7148	ng	82
36) 2,4-Dimethylphenol	6.573	107	389119	147.5477	ng	85
37) Benzoic Acid	6.690	105	446717	129.8864	ng	81
38) bis(2-Chloroethoxy)met...	6.648	93	444576	142.5708	ng	94
39) 2,4-Dichlorophenol	6.728	162	374277	159.9254	ng	84
40) 1,2,4-Trichlorobenzene	6.792	180	393627	149.0863	ng	98
41) Naphthalene	6.856	128	1243872m	159.8453	ng	
42) 4-Chloroaniline	6.894	127	360212m	148.4743	ng	
43) Hexachlorobutadiene	6.942	225	221504	147.0810	ng	97
44) Caprolactam	7.193	113	161753	168.8533	ng	69
45) 4-Chloro-3-methylphenol	7.257	107	339469	143.7579	ng	66
46) 2-Methylnaphthalene	7.391	142	876526	148.9676	ng	98
47) 1-Methylnaphthalene	7.471	142	844243	148.5196	ng	95
48) Methylnaphthalenes (To...	7.391	142	1714050m	296.9183	ng	
49) 1,1'-Biphenyl	7.765	154	1012553	131.3144	ng	93
51) 1,2,4,5-Tetrachloroben...	7.525	216	419234	160.4245	ng	98
52) Hexachlorocyclopentadiene	7.509	237	274212	169.8569	ng	98
53) 2,4,6-Trichlorophenol	7.610	196	270162	157.7827	ng	99
54) 2,4,5-Trichlorophenol	7.642	196	292620	162.7036	ng	98
56) 2-Chloronaphthalene	7.787	162	784177	145.1993	ng	92
57) 1,4-Dimethylnaphthalene	8.070	156	631563	136.7678	ng	87
58) Dimethylnaphthalenes (...	8.070	156	631563	136.7678	ng	87
59) Diphenyl Ether	7.851	170	613537	160.3867	ng	72
60) 2-Nitroaniline	7.867	65	261212	158.0818	ng	38
61) Coumarin	8.060	146	329666	134.8445	ng	86
62) Acenaphthylene	8.151	152	1277085	152.9690	ng	100
63) Dimethylphthalate	8.017	163	920338	148.6323	ng	98
64) 2,6-Dinitrotoluene	8.070	165	215246	159.6544	ng	62
65) Acenaphthene	8.300	153	822548	151.3382	ng	99

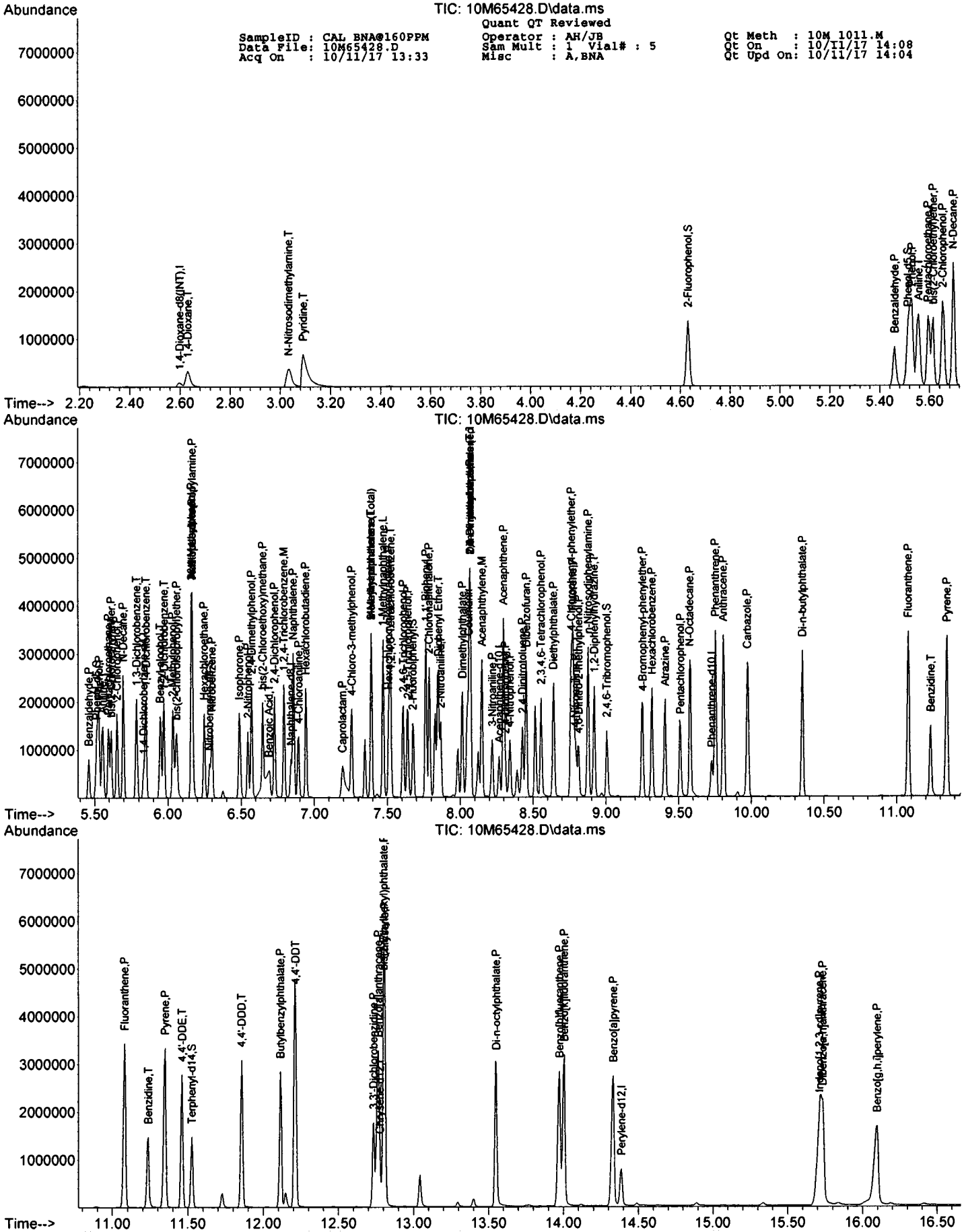
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65428.D Sam Mult : 1 Vial# : 5 Qt On : 10/11/17 14:08
Acq On : 10/11/17 13:33 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.220	138	203581	149.5042	ng	67
67)	2,4-Dinitrophenol	8.311	184	134543	155.9559	ng	32
68)	Dibenzofuran	8.455	168	1181915	159.6720	ng	84
69)	2,4-Dinitrotoluene	8.429	165	290663	155.6473	ng	58
70)	4-Nitrophenol	8.343	65	169935m	153.6866	ng	
71)	2,3,4,6-Tetrachlorophenol	8.557	232	250309	155.7657	ng	83
72)	Fluorene	8.776	166	968681	153.8235	ng	98
73)	4-Chlorophenyl-phenyle...	8.766	204	464287	150.5846	ng	79
74)	Diethylphthalate	8.643	149	928365	152.2866	ng	95
75)	4-Nitroaniline	8.792	138	282826	164.1603	ng	71
76)	Atrazine	9.407	200	255736	206.1818	ng	95
78)	4,6-Dinitro-2-methylph...	8.814	198	181411	151.6031	ng	71
79)	n-Nitrosodiphenylamine	8.878	169	819258	154.9142	ng	98
81)	1,2-Diphenylhydrazine	8.921	77	887580	161.1621	ng	72
82)	4-Bromophenyl-phenylether	9.252	248	275131	150.6037	ng	79
83)	Hexachlorobenzene	9.317	284	296080	148.6239	ng	65
84)	N-Octadecane	9.579	57	555693	165.4414	ng	91
85)	Pentachlorophenol	9.514	266	202588	162.0583	ng	94
86)	Phenanthrene	9.755	178	1432665	153.9303	ng	99
87)	Anthracene	9.809	178	1466259	157.4436	ng	99
88)	Carbazole	9.974	167	1360249	156.0740	ng	98
89)	Di-n-butylphthalate	10.354	149	1613859	166.6950	ng	97
90)	Fluoranthene	11.082	202	1534319	153.3069	ng	89
92)	Pyrene	11.349	202	1611074	156.5957	ng	84
93)	Benzidine	11.237	184	651765	141.0804	ng	83
95)	4,4'-DDE	11.461	246	339911	148.2548	ng	93
96)	4,4'-DDD	11.857	235	642712	153.3343	ng	96
97)	Butylbenzylphthalate	12.114	149	752249	168.3276	ng	69
98)	4,4'-DDT	12.216	235	553285	154.3949	ng	99
99)	3,3'-Dichlorobenzidine	12.734	252	394277	148.7083	ng	95
100)	Benzo[a]anthracene	12.766	228	1482437	151.0053	ng	99
101)	Chrysene	12.809	228	1363738	142.5189	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.804	149	1014017	177.4143	ng	91
104)	Di-n-octylphthalate	13.553	149	1766738	174.2894	ng	99
105)	Benzo[b]fluoranthene	13.975	252	1529589	165.5835	ng	93
106)	Benzo[k]fluoranthene	14.007	252	1453817	159.5221	ng	92
107)	Benzo[a]pyrene	14.334	252	1395830	156.1758	ng	91
108)	Indeno[1,2,3-cd]pyrene	15.714	276	1533324	150.6544	ng	99
109)	Dibenzo[a,h]anthracene	15.735	278	1308558	151.3059	ng	90
110)	Benzo[g,h,i]perylene	16.099	276	1301590	149.4854	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65428.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@160PPM
Data File: 10M65428.D
Acq On : 10/11/17 13:33
Operator : AH/JB
Sam Mult : 1 Vial# : 5
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 14:08
Qt Upd On: 10/11/17 14:04
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time--> 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60
Abundance
TIC: 10M65428.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Acenaphthylene,M
Acenaphthene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time--> 5.50 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00 10.50 11.00
Abundance
TIC: 10M65428.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time--> 11.00 11.50 12.00 12.50 13.00 13.50 14.00 14.50 15.00 15.50 16.00 16.50

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65427.D Sam Mult : 1 Vial# : 4 Qt On : 10/11/17 14:06
Acq On : 10/11/17 13:10 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.593	96	33418	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.835	152	80231	40.00	ng	0.00
31) Naphthalene-d8	6.840	136	298751	40.00	ng	0.00
50) Acenaphthene-d10	8.268	164	179421	40.00	ng	0.00
77) Phenanthrene-d10	9.728	188	308588	40.00	ng	0.00
91) Chrysene-d12	12.777	240	350214	40.00	ng	0.00
103) Perylene-d12	14.387	264	309769	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.631	112	459485	213.80	ng	0.00
Spiked Amount 100.000			Recovery = 213.80%			
16) Phenol-d5	5.519	99	570644	198.92	ng	0.00
Spiked Amount 100.000			Recovery = 198.92%			
32) Nitrobenzene-d5	6.284	128	124872	97.42	ng	0.00
Spiked Amount 50.000			Recovery = 194.84%			
55) 2-Fluorobiphenyl	7.680	172	563746	92.16	ng	0.00
Spiked Amount 50.000			Recovery = 184.32%			
80) 2,4,6-Tribromophenol	9.012	330	181140	187.61	ng	0.00
Spiked Amount 100.000			Recovery = 187.61%			
94) Terphenyl-d14	11.526	244	546926	101.47	ng	0.00
Spiked Amount 50.000			Recovery = 202.94%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.631	88	177681	208.8976	ng	77
9) Pyridine	3.091	79	447304	200.9531	ng	87
10) N-Nitrosodimethylamine	3.037	74	258746	188.5300	ng	87
12) Benzaldehyde	5.460	77	147411	385.7155	ng	68
13) Aniline	5.556	93	676451	216.5472	ng	34
14) Pentachloroethane	5.594	117	161502	187.7107	ng	74
15) bis(2-Chloroethyl)ether	5.615	93	435701	182.7846	ng	83
17) Phenol	5.530	94	622671	194.1696	ng	86
18) 2-Chlorophenol	5.658	128	528393	206.9343	ng	74
19) N-Decane	5.696	57	491002	203.8499	ng	92
20) 1,3-Dichlorobenzene	5.786	146	570211	202.1950	ng	96
22) 1,4-Dichlorobenzene	5.851	146	593369	182.1335	ng	98
23) 1,2-Dichlorobenzene	5.974	146	546551	178.2290	ng	98
24) Benzyl alcohol	5.952	108	330466	184.3994	ng	65
25) bis(2-chloroisopropyl)...	6.059	45	751013	216.9466	ng	99
26) 2-Methylphenol	6.038	108	452565	182.2249	ng	96
27) Acetophenone	6.166	105	639045	182.0723	ng	71
28) Hexachloroethane	6.246	117	215666	185.8975	ng	87
29) N-Nitroso-di-n-propyla...	6.166	70	294393	165.6969	ng	79
30) 3&4-Methylphenol	6.161	108	437900	169.2928	ng	97
33) Nitrobenzene	6.300	77	463072	179.8026	ng	72
34) Isophorone	6.492	82	879882	188.6112	ng	76
35) 2-Nitrophenol	6.546	139	296109	208.2913	ng	83
36) 2,4-Dimethylphenol	6.573	107	477336	191.8661	ng	86
37) Benzoic Acid	6.701	105	528900	155.3697	ng	81
38) bis(2-Chloroethoxy)met...	6.648	93	540821	180.2743	ng	94
39) 2,4-Dichlorophenol	6.728	162	457183	210.2699	ng	84
40) 1,2,4-Trichlorobenzene	6.792	180	499527	196.6561	ng	97
41) Naphthalene	6.856	128	1448515m	200.6556	ng	
43) Hexachlorobutadiene	6.942	225	262423	181.1225	ng	96
44) Caprolactam	7.199	113	189922	202.3304	ng	69
45) 4-Chloro-3-methylphenol	7.257	107	402984	177.3842	ng	69
46) 2-Methylnaphthalene	7.391	142	1009798	178.3845	ng	98
47) 1-Methylnaphthalene	7.471	142	976931	178.6387	ng	94
48) Methylnaphthalenes (To...	7.391	142	1979779m	356.4723	ng	
49) 1,1'-Biphenyl	7.765	154	1184676	159.6944	ng	93
51) 1,2,4,5-Tetrachloroben...	7.525	216	493914	200.7165	ng	98
52) Hexachlorocyclopentadiene	7.509	237	320610	208.0152	ng	99
53) 2,4,6-Trichlorophenol	7.610	196	322903	200.2741	ng	98
54) 2,4,5-Trichlorophenol	7.642	196	347478	205.1814	ng	98
56) 2-Chloronaphthalene	7.792	162	932924	183.4485	ng	89
57) 1,4-Dimethylnaphthalene	8.070	156	718125	165.1524	ng	90
58) Dimethylnaphthalenes (...	8.070	156	718125	165.1524	ng	90
59) Diphenyl Ether	7.851	170	732349	203.3121	ng	72
60) 2-Nitroaniline	7.867	65	307208	197.4416	ng	42
61) Coumarin	8.060	146	377521	163.9901	ng	83
62) Acenaphthylene	8.151	152	1514386	192.6361	ng	100
63) Dimethylphthalate	8.017	163	1079613	185.1618	ng	98
64) 2,6-Dinitrotoluene	8.070	165	244208	192.3637	ng	73
65) Acenaphthene	8.300	153	964518	188.4582	ng	98
66) 3-Nitroaniline	8.220	138	220755	172.1647	ng	69

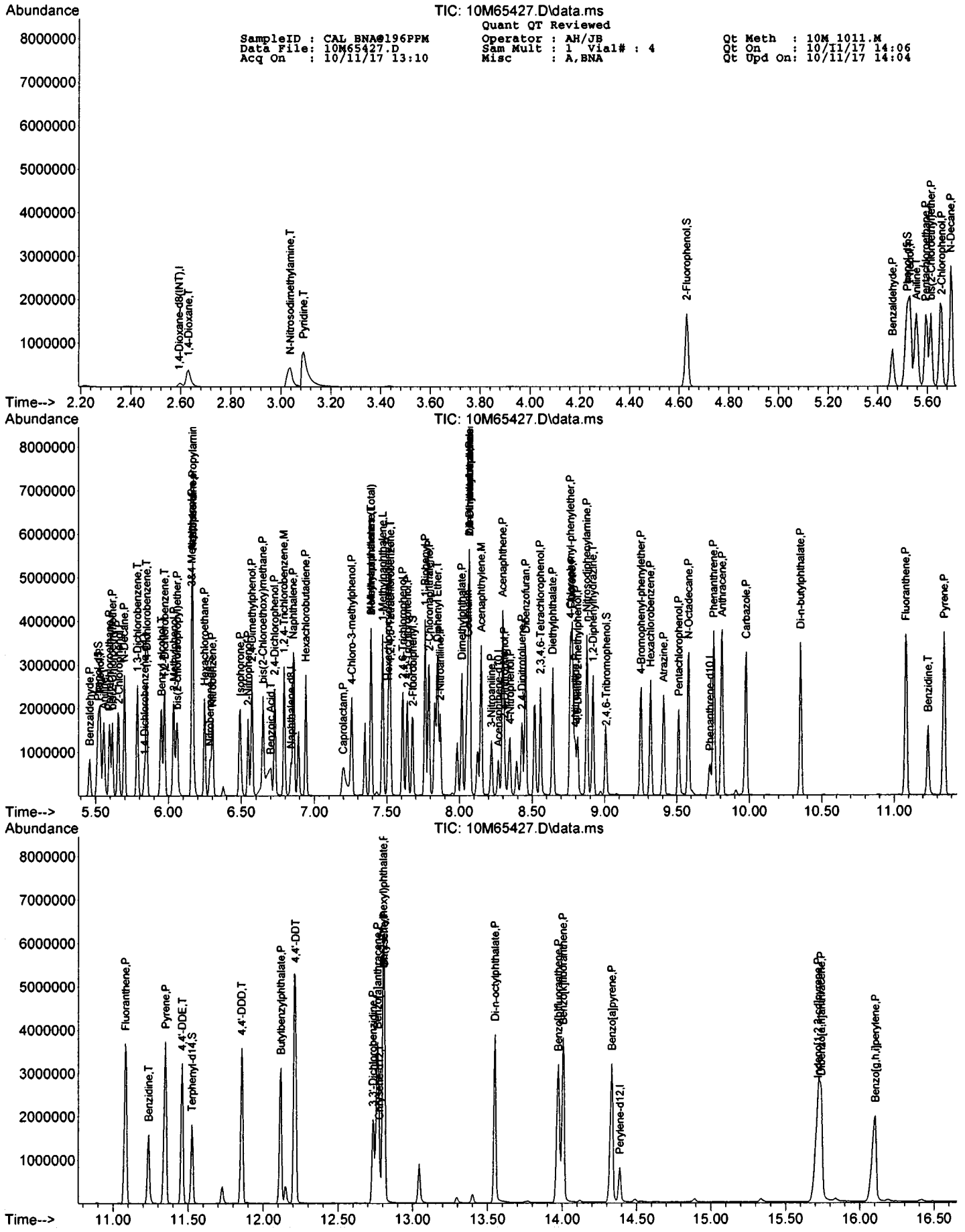
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65427.D Sam Mult : 1 Vial# : 4 Qt On : 10/11/17 14:06
Acq On : 10/11/17 13:10 Misc : A,BNA Qt Upd On: 10/11/17 14:04

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	2,4-Dinitrophenol	8.311	184	159120	187.3709	ng	34
68)	Dibenzofuran	8.455	168	1390561	204.2320	ng	85
69)	2,4-Dinitrotoluene	8.429	165	342761	194.9220	ng	61
70)	4-Nitrophenol	8.348	65	197629m	191.0833	ng	
71)	2,3,4,6-Tetrachlorophenol	8.557	232	305438	201.8534	ng	83
72)	Fluorene	8.776	166	1124310	189.6031	ng	99
73)	4-Chlorophenyl-phenyle...	8.766	204	548760	189.0140	ng	81
74)	Diethylphthalate	8.643	149	1106998	192.8445	ng	95
75)	4-Nitroaniline	8.798	138	336081	207.1620	ng	69
76)	Atrazine	9.408	200	308334	263.9959	ng	96
78)	4,6-Dinitro-2-methylph...	8.814	198	213785	181.6815	ng	68
79)	n-Nitrosodiphenylamine	8.878	169	982868	194.9859	ng	98
81)	1,2-Diphenylhydrazine	8.921	77	1036769	197.5035	ng	72
82)	4-Bromophenyl-phenylether	9.252	248	332012	190.6722	ng	82
83)	Hexachlorobenzene	9.317	284	352674	185.7336	ng	66
84)	N-Octadecane	9.584	57	638526	199.4460	ng	88
85)	Pentachlorophenol	9.514	266	246030	198.5399	ng	97
86)	Phenanthrene	9.755	178	1681182	189.5098	ng	100
87)	Anthracene	9.814	178	1751504	197.3163	ng	99
88)	Carbazole	9.980	167	1586222	190.9473	ng	97
89)	Di-n-butylphthalate	10.354	149	1881132	207.1599	ng	97
90)	Fluoranthene	11.082	202	1816874	190.4620	ng	90
92)	Pyrene	11.349	202	1886252	188.0556	ng	85
93)	Benzidine	11.237	184	684213	154.8191	ng	84
95)	4,4'-DDE	11.461	246	397495	177.8268	ng	93
96)	4,4'-DDD	11.857	235	755766	184.9407	ng	95
97)	Butylbenzylphthalate	12.119	149	882796	203.8131	ng	64
98)	4,4'-DDT	12.216	235	649817	185.9933	ng	98
99)	3,3'-Dichlorobenzidine	12.734	252	456206	186.3934	ng	96
100)	Benzo[a]anthracene	12.766	228	1750423	182.8862	ng	99
101)	Chrysene	12.809	228	1632138	174.9527	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.804	149	1190898	213.7175	ng	92
104)	Di-n-octylphthalate	13.553	149	2086531	213.7528	ng	99
105)	Benzo[b]fluoranthene	13.975	252	1766412	197.5089	ng	94
106)	Benzo[k]fluoranthene	14.007	252	1661799m	188.3397	ng	
107)	Benzo[a]pyrene	14.334	252	1668686	192.8449	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.719	276	1878405	190.6292	ng	86
109)	Dibenzo[a,h]anthracene	15.740	278	1601564	191.2756	ng	88
110)	Benzo[g,h,i]perylene	16.104	276	1576896	187.0595	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M65427.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@196PPM
Data File: 10M65427.D
Acq On : 10/11/17 13:10
Operator : AH/JB
Sam Mult : 1 Vial# : 4
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 14:06
Qt Upd On: 10/11/17 14:04
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65433.D Sam Mult : 1 Vial# : 10 Qt On : 10/11/17 15:49
Acq On : 10/11/17 15:24 Misc : A,BNA Qt Upd On: 10/11/17 15:27

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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)	2.599	96	36149	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.829	152	83752	40.00	ng	0.00
31) Naphthalene-d8	6.835	136	318277	40.00	ng	0.00
50) Acenaphthene-d10	8.263	164	195240	40.00	ng	0.00
77) Phenanthrene-d10	9.723	188	345745	40.00	ng	0.00
91) Chrysene-d12	12.767	240	386495	40.00	ng	0.00
103) Perylene-d12	14.382	264	364714	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						Qvalue
8) 1,4-Dioxane	2.663	88	990m	1.0688	ng	
9) Pyridine	0.000		0	N.D. d		
10) N-Nitrosodimethylamine	0.000		0	N.D.		
12) Benzaldehyde	0.000		0	N.D. d		
13) Aniline	5.551	93	1270	0.3758	ng	49
14) Pentachloroethane	0.000		0	N.D. d		
15) bis(2-Chloroethyl)ether	5.605	93	1495	0.5798	ng	78
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	6.027	108	1501	0.5439	ng	89
27) Acetophenone	0.000		0	N.D. d		
28) Hexachloroethane	0.000		0	N.D. d		
29) N-Nitroso-di-n-propyla...	6.156	70	971	0.5235	ng	94
30) 3&4-Methylphenol	6.150	108	1444	0.5348	ng	81
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	6.562	107	1481	0.5147	ng	98
37) Benzoic Acid	0.000		0	N.D.		
38) bis(2-Chloroethoxy)met...	0.000		0	N.D. d		
39) 2,4-Dichlorophenol	6.723	162	1195	0.4493	ng	85
40) 1,2,4-Trichlorobenzene	0.000		0	N.D. d		
41) Naphthalene	6.851	128	5651	0.6218	ng	98
42) 4-Chloroaniline	6.888	127	1354	0.3716	ng	91
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. 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		

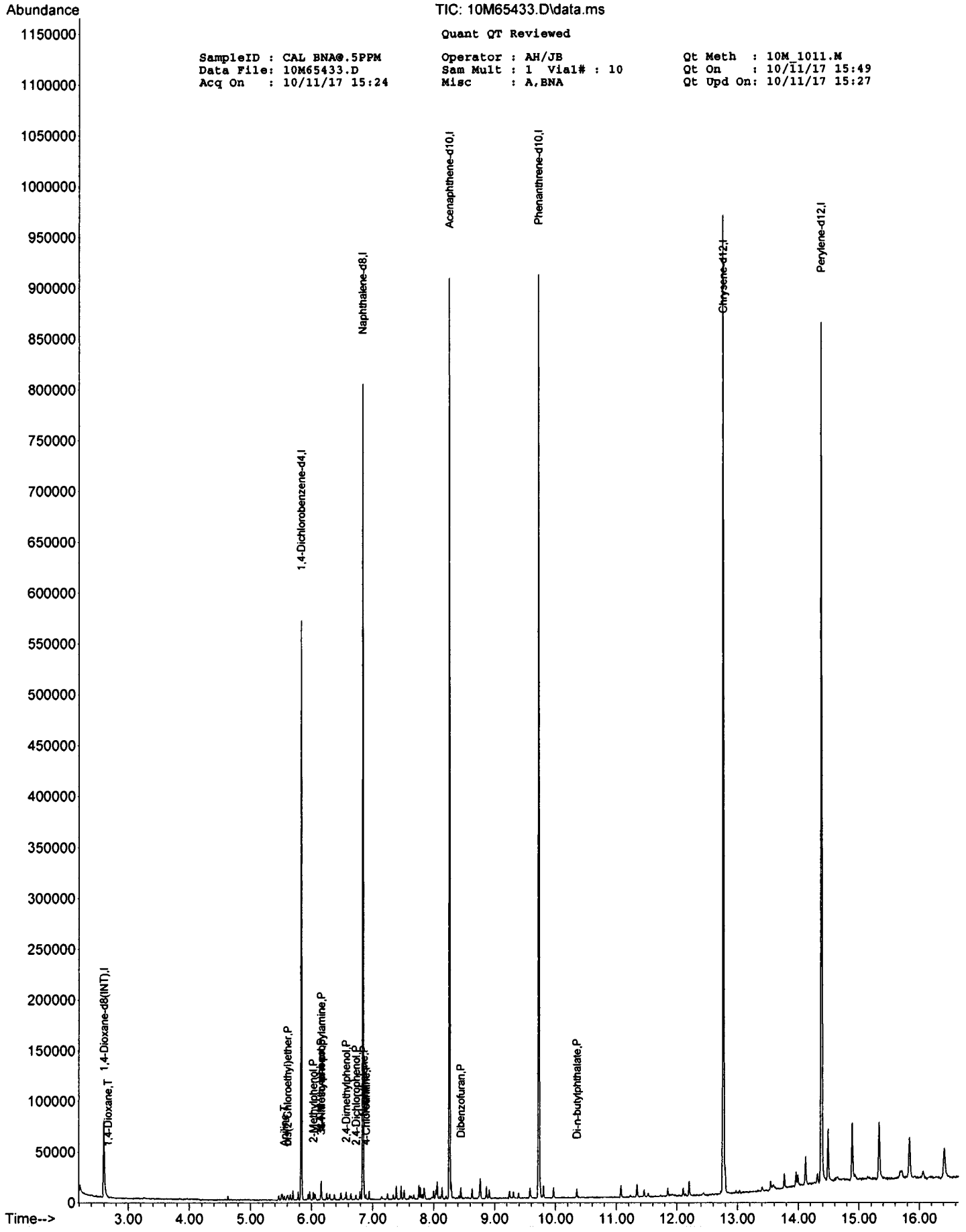
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M65433.D Sam Mult : 1 Vial# : 10 Qt On : 10/11/17 15:49
Acq On : 10/11/17 15:24 Misc : A,BNA Qt Upd On: 10/11/17 15:27

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Qt Path : G:\GCMSDATA\2017\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. d		
67)	2,4-Dinitrophenol	0.000		0	N.D.		
68)	Dibenzofuran	8.445	168	4784	0.5826	ng	91
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. 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	10.349	149	5226	0.4743	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


Abundance
TIC: 10M65433.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@.5PPM
Data File: 10M65433.D
Acq On : 10/11/17 15:24
Operator : AH/JB
Sam Mult : 1 Vial# : 10
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 10/11/17 15:49
Qt Upd On: 10/11/17 15:27
1,4-Dioxane,T
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Chrysene-d12,I
Perylene-d12,I
Dibenzofuran,P
Di-n-butylphthalate,P
Time-->

7111017 0170

Form 6
Initial Calibration

Method: EPA 8270D

Instrument: GCMS_7

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	7M87278.D	CAL BNA@50PPM	10/19/17 13:35	2	7M87270.D	CAL BNA@2PPM	10/19/17 10:27
3	7M87271.D	CAL BNA@10PPM	10/19/17 10:51	4	7M87276.D	CAL BNA@20PPM	10/19/17 12:48
5	7M87275.D	CAL BNA@80PPM	10/19/17 12:25	6	7M87274.D	CAL BNA@120PPM	10/19/17 12:02
7	7M87273.D	CAL BNA@160PPM	10/19/17 11:38	8	7M87272.D	CAL BNA@196PPM	10/19/17 11:15
9	7M87277.D	CAL BNA@.5PPM	10/19/17 13:11				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
1,4-Dioxane	1	0	Qua	1.0923	1.3063	1.1581	1.0889	1.0643	1.0658	1.0119	1.1027	1.6513	1.17	2.60	0.997	0.998	17		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pyridine	1	0	Avg	2.7887	2.8652	2.6218	2.6276	2.9927	3.0072	2.7592	2.9642	-----	2.83	3.07	0.997	0.997	5.5		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitrosodimethylamin	1	0	Avg	1.6573	1.7220	1.5402	1.5714	1.7584	1.7767	1.6325	1.7961	-----	1.68	3.00	0.996	0.996	5.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Fluorophenol	1	0	Avg	2.4008	2.2871	2.1368	2.2841	2.6257	2.6402	2.3929	2.6028	-----	2.42	4.61	0.995	0.997	7.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzaldehyde	1	0	Qua	1.3321	1.5181	1.3438	1.2917	1.3710	1.2779	1.0644	1.1062	-----	1.29	5.45	0.984	0.994	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Aniline	1	0	Qua	3.4325	2.4698	2.1437	2.4437	3.7632	3.8441	3.4517	3.6944	2.9387	3.13	5.54	0.996	0.996	21		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pentachloroethane	1	0	Avg	0.7950	0.8998	0.7717	0.7719	0.8475	0.8175	0.7514	0.8054	-----	0.808	5.58	0.997	0.997	5.9	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethyl)ether	1	0	Avg	2.5993	2.9852	2.6114	2.5674	2.6998	2.5994	2.2897	2.4855	3.5189	2.71	5.60	0.995	0.995	13	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	3.1606	3.0720	2.8289	2.8689	3.3558	3.3456	2.9311	3.2247	-----	3.10	5.49	0.994	0.994	6.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Phenol	1	0	Avg	3.7161	3.7177	3.3678	3.4021	3.9126	3.8163	3.3551	3.6576	-----	3.62	5.51	0.994	0.994	6.0	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Chlorophenol	1	0	Avg	2.6243	2.4740	2.3956	2.4245	2.7780	2.7238	2.4214	2.6243	-----	2.56	5.63	0.995	0.995	5.8	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Decane	1	0	Avg	2.3754	2.8980	2.4423	2.4439	2.3474	2.2578	2.0156	2.1016	-----	2.36	5.68	0.995	0.997	11	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,3-Dichlorobenzene	1	0	Avg	2.5823	3.0458	2.6215	2.5413	2.6456	2.5933	2.3102	2.4816	-----	2.60	5.77	0.995	0.996	8.0		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,4-Dichlorobenzene	1	0	Avg	1.3971	1.6515	1.4453	1.4386	1.3769	1.3991	1.3236	1.3897	-----	1.43	5.83	0.999	0.999	6.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Dichlorobenzene	1	0	Avg	1.3440	1.6287	1.3999	1.3719	1.3235	1.3304	1.2629	1.3242	-----	1.37	5.96	0.999	0.999	8.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzyl alcohol	1	0	Avg	0.9243	0.9086	0.8474	0.8708	0.9445	0.9894	0.9045	0.9659	-----	0.919	5.93	0.998	0.999	5.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-chloroisopropyl)e	1	0	Avg	1.6856	2.0466	1.7767	1.6529	1.6470	1.6785	1.5210	1.6383	-----	1.71	6.04	0.997	0.997	9.1	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylphenol	1	0	Avg	1.2875	1.2781	1.2382	1.2525	1.3090	1.3379	1.2270	1.3136	1.3507	1.29	6.02	0.998	0.998	3.4	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Acetophenone	1	0	Avg	2.0040	2.3332	2.1629	2.0378	1.9567	1.9138	1.6935	1.7683	-----	1.98	6.15	0.995	0.997	10	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachloroethane	1	0	Avg	0.5365	0.6255	0.5579	0.5490	0.5430	0.5562	0.5295	0.5593	-----	0.557	6.23	0.999	0.999	5.3	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitroso-di-n-propyla	1	0	Qua	0.9450	1.1000	0.9947	0.9535	0.9304	0.9059	0.8067	0.8661	1.1590	0.962	6.15	0.996	0.996	11	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
3&4-Methylphenol	1	0	Avg	1.3115	1.3069	1.2895	1.2843	1.3327	1.2924	1.1316	1.1774	1.3443	1.27	6.14	0.994	0.997	5.6		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Nitrobenzene-d5	1	0	Avg	0.1615	0.1623	0.1518	0.1564	0.1615	0.1641	0.1603	0.1710	-----	0.161	6.27	0.998	0.999	3.5		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
Nitrobenzene	1	0	Avg	0.3641	0.3808	0.3564	0.3624	0.3509	0.3536	0.3326	0.3567	-----	0.357	6.29	0.998	0.998	3.8	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Isophorone	1	0	Avg	0.6858	0.6721	0.6470	0.6638	0.6696	0.6733	0.6328	0.6877	-----	0.667	6.47	0.997	0.997	2.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitrophenol	1	0	Qua	0.1762	0.1401	0.1436	0.1664	0.1808	0.1882	0.1788	0.1897	-----	0.171	6.54	0.998	0.999	11	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dimethylphenol	1	0	Avg	0.3447	0.3362	0.3334	0.3411	0.3435	0.3448	0.3235	0.3483	0.3213	0.337	6.56	0.998	0.998	2.9	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	0.3001	-----	0.0657	0.1873	0.3774	0.4148	0.4032	0.4292	-----	0.311	6.63	0.998	0.998	44		50.00		10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethoxy)me	1	0	Avg	0.4228	0.4650	0.4263	0.4318	0.4139	0.4121	0.3840	0.4114	-----	0.421	6.63	0.998	0.998	5.4	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dichlorophenol	1	0	Avg	0.2738	0.2328	0.2419	0.2677	0.2757	0.2786	0.2619	0.2791	0.2139	0.258	6.72	0.998	0.998	9.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,2,4-Trichlorobenzen	1	0	Avg	0.2906	0.3331	0.2976	0.2975	0.2832	0.2845	0.2685	0.2870	-----	0.293	6.79	0.998	0.998	6.4		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Naphthalene	1	0	Qua	1.0120	1.2420	1.0644	1.0601	0.9805	0.9713	0.8974	0.9623	1.4272	1.07	6.85	0.998	0.998	16	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	0.3619	0.2561	0.2370	0.2702	0.3553	0.3195	0.2562	0.2540	0.3013	0.290	6.88	0.967	0.993	16	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Hexachlorobutadiene	1	0	Avg	0.1465	0.1678	0.1498	0.1531	0.1451	0.1469	0.1401	0.1482	-----	0.150	6.94	0.999	0.999	5.5	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Caprolactam	1	0	Qua	0.1374	0.1091	0.1048	0.1187	0.1431	0.1458	0.1444	0.1625	-----	0.133	7.16	0.994	0.997	15	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chloro-3-methylphe	1	0	Avg	0.3077	0.2703	0.2805	0.2833	0.3134	0.3174	0.2920	0.3212	-----	0.298	7.24	0.996	0.996	6.4	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylnaphthalene	1	0	Avg	0.6950	0.7869	0.7051	0.7085	0.6781	0.6729	0.6230	0.6651	-----	0.692	7.39	0.998	0.998	6.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1-Methylnaphthalene	1	0	Avg	0.6646	0.7513	0.6920	0.6554	0.6517	0.6509	0.5937	0.6391	-----	0.662	7.47	0.997	0.997	6.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Methylnaphthalenes (	1	0	Avg	0.6795	0.7692	0.6985	0.6818	0.6645	0.6620	0.6081	0.6518	-----	0.677	7.39	0.997	0.997	6.8		100.0	4.00	20.00	40.00	160.0	240.0	320.0	392.0	
1,1'-Biphenyl	1	0	Avg	0.8091	0.9254	0.8326	0.7928	0.8035	0.8015	0.7363	0.8020	-----	0.813	7.76	0.997	0.997	6.5	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2,4,5-Tetrachloroben	1	0	Avg	0.4983	0.5992	0.5136	0.5198	0.4831	0.4827	0.4593	0.4745	-----	0.504	7.51	0.999	1.00	8.6	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	

Avg Rsd: 9.32

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.

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Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_7

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	7M87278.D	CAL BNA@50PPM	10/19/17 13:35	2	7M87270.D	CAL BNA@2PPM	10/19/17 10:27
3	7M87271.D	CAL BNA@10PPM	10/19/17 10:51	4	7M87276.D	CAL BNA@20PPM	10/19/17 12:48
5	7M87275.D	CAL BNA@80PPM	10/19/17 12:25	6	7M87274.D	CAL BNA@120PPM	10/19/17 12:02
7	7M87273.D	CAL BNA@160PPM	10/19/17 11:38	8	7M87272.D	CAL BNA@196PPM	10/19/17 11:15
9	7M87277.D	CAL BNA@.5PPM	10/19/17 13:11				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
Hexachlorocyclopenta	1	0	Avg	0.2794	0.2732	0.2565	0.2791	0.2872	0.2957	0.2920	0.2972	-----	0.283	7.50	1.00	1.00	4.8	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	0.3257	0.2311	0.2994	0.3130	0.3215	0.3523	0.3323	0.3458	-----	0.315	7.60	0.998	0.999	12	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	0.3393	0.2778	0.2879	0.3443	0.3093	0.3360	0.3363	0.3541	-----	0.323	7.63	0.997	0.999	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	1.2294	1.4543	1.2428	1.2621	1.1836	1.1901	1.1659	1.2219	-----	1.24	7.67	1.00	1.00	7.3		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
2-Chloronaphthalene	1	0	Avg	1.1363	1.1959	1.0739	1.0997	1.0455	1.0136	0.9583	1.0022	-----	1.07	7.78	0.998	0.998	7.3	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,4-Dimethylnaphthale	1	0	Avg	0.8347	0.9951	0.8972	0.8724	0.7968	0.7690	0.7140	0.7314	-----	0.826	8.06	0.997	0.999	11		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylnaphthalenes	1	0	Avg	0.8347	0.9951	0.8972	0.8724	0.7968	0.7690	0.7140	0.7314	-----	0.826	8.06	0.997	0.999	11		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diphenyl Ether	1	0	Avg	0.7804	0.9236	0.8255	0.8290	0.7567	0.7555	0.7210	0.7551	-----	0.793	7.85	0.999	0.999	8.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitroaniline	1	0	Avg	0.3871	0.3546	0.3552	0.3794	0.3788	0.3839	0.3573	0.3825	-----	0.372	7.86	0.998	0.998	3.8	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Coumarin	1	0	Avg	0.4532	0.4820	0.4627	0.4558	0.4404	0.4318	0.3976	0.4146	-----	0.442	8.04	0.997	0.998	6.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthylene	1	0	Avg	1.6634	1.7748	1.7033	1.7184	1.6269	1.6184	1.5293	1.6199	-----	1.66	8.14	0.999	0.999	4.6	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylphthalate	1	0	Avg	1.2274	1.3358	1.2475	1.2428	1.2178	1.2012	1.1446	1.2125	-----	1.23	8.00	0.998	0.998	4.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,6-Dinitrotoluene	1	0	Avg	0.2808	0.2700	0.2765	0.2835	0.2736	0.2644	0.2388	0.2487	-----	0.267	8.06	0.996	0.998	5.9	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthene	1	0	Avg	1.0842	1.2750	1.1281	1.1048	1.0458	1.0314	0.9784	1.0295	-----	1.08	8.29	0.998	0.998	8.3	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3-Nitroaniline	1	0	Qua	0.3059	0.2343	0.2474	0.2678	0.3180	0.3061	0.2776	0.2915	-----	0.281	8.21	0.996	0.997	11	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dinitrophenol	1	0	Qua	0.1159	-----	0.0291	0.0665	0.1449	0.1682	0.1638	0.1777	-----	0.124	8.30	0.996	0.998	46	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzofuran	1	0	Qua	1.5664	1.8362	1.6291	1.5826	1.5185	1.5064	1.4118	1.5049	2.1485	1.63	8.44	0.998	0.998	14	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	0.3904	0.2962	0.3331	0.3633	0.4036	0.4095	0.3868	0.4178	-----	0.375	8.42	0.998	0.998	11	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitrophenol	1	0	Qua	0.2507	0.1264	0.1932	0.2198	0.2656	0.2648	0.2440	0.2730	-----	0.230	8.33	0.995	0.995	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	0.2963	0.2155	0.2463	0.2711	0.3098	0.3155	0.3023	0.3233	-----	0.285	8.55	0.998	0.999	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Fluorene	1	0	Avg	1.2600	1.3902	1.3101	1.2680	1.2211	1.2140	1.1238	1.2023	-----	1.25	8.77	0.997	0.997	6.3	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chlorophenyl-phenyl	1	0	Avg	0.5730	0.6379	0.5923	0.5828	0.5741	0.5766	0.5334	0.5704	-----	0.580	8.76	0.998	0.998	5.0	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diethylphthalate	1	0	Avg	1.2791	1.3248	1.2405	1.2753	1.2775	1.2866	1.2060	1.3120	-----	1.28	8.64	0.997	0.997	3.0	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitroaniline	1	0	Qua	0.3726	0.2447	0.3227	0.3437	0.3786	0.3831	0.3583	0.3968	-----	0.350	8.77	0.996	0.997	14	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Atrazine	1	0	Avg	0.3244	0.2612	0.2769	0.3056	0.3338	0.3388	0.3235	0.3542	-----	0.315	9.39	0.997	0.998	10	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	0.1021	-----	0.0489	0.0755	0.1173	0.1240	0.1215	0.1321	-----	0.103	8.80	0.997	0.998	29	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
n-Nitrosodiphenylamin	1	0	Avg	0.6121	0.6129	0.6165	0.6316	0.5957	0.5928	0.5601	0.5921	-----	0.602	8.87	0.999	0.999	3.6	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	0.0824	0.0465	0.0640	0.0768	0.0857	0.0906	0.0881	0.0939	-----	0.0786	9.00	0.998	0.999	20		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Diphenylhydrazine	1	0	Avg	0.7245	0.7885	0.7697	0.7587	0.6847	0.6754	0.7017	0.6794	-----	0.723	8.91	0.999	0.999	6.2		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Bromophenyl-phenyl	1	0	Avg	0.1886	0.1980	0.1802	0.1876	0.1870	0.1898	0.1825	0.1943	-----	0.189	9.24	0.998	0.999	3.1	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachlorobenzene	1	0	Avg	0.1921	0.2277	0.1986	0.2006	0.1912	0.1950	0.1866	0.1980	-----	0.199	9.31	1.00	1.00	6.3	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Octadecane	1	0	Avg	0.4158	0.4160	0.4321	0.4373	0.3903	0.3787	0.3526	0.3636	-----	0.398	9.58	0.997	0.998	7.9	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pentachlorophenol	1	0	Qua	0.1129	-----	0.0676	0.0867	0.1252	0.1332	0.1304	0.1395	-----	0.114	9.51	0.998	0.999	24	0.05	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Phenanthrene	1	0	Avg	1.0419	1.2304	1.1071	1.0852	1.0181	0.9953	0.9355	1.0044	-----	1.05	9.75	0.999	0.999	8.5	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Anthracene	1	0	Avg	1.0697	1.1298	1.0759	1.0966	1.0430	1.0333	0.9553	1.0341	-----	1.05	9.80	0.997	0.997	4.9	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Carbazole	1	0	Avg	1.0453	0.9632	1.0289	1.0460	1.0235	1.0109	0.9448	1.0139	-----	1.01	9.97	0.997	0.997	3.7	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-butylphthalate	1	0	Avg	1.2268	1.0134	1.1054	1.1862	1.2271	1.2230	1.1462	1.2312	0.9647	1.15	10.35	0.998	0.998	8.7	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Fluoranthene	1	0	Avg	1.1987	1.1743	1.1595	1.1974	1.1790	1.1691	1.0852	1.1733	-----	1.17	11.07	0.997	0.997	3.1	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pyrene	1	0	Avg	1.1063	1.1446	1.1316	1.1296	1.0903	1.1031	1.0624	1.1408	-----	1.11	11.34	0.998	0.998	2.5	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzidine	1	0	Qua	0.4004	0.0716	0.0816	0.1880	0.4832	0.4946	0.4285	0.4243	-----	0.322	11.23	0.987	0.993	55		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Terphenyl-d14	1	0	Avg	0.6020	0.5710	0.5724	0.6005	0.6181	0.6414	0.6338	0.7086	-----	0.619	11.52	0.996	0.999	7.2		25.00	1.00	5.00	10.00	40.00	60.00	80.00	96.00	

Flags	*Note:* Avg Rsd: 9.32
a - failed the min rf criteria	*Corr 1 = Correlation Coefficient for linear Eq.*
c - failed the minimum correlation coeff criteria(if applicable)	*Corr 2 = Correlation Coefficient for quad Eq.*
	Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_7

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	7M87278.D	CAL BNA@50PPM	10/19/17 13:35	2	7M87270.D	CAL BNA@2PPM	10/19/17 10:27
3	7M87271.D	CAL BNA@10PPM	10/19/17 10:51	4	7M87276.D	CAL BNA@20PPM	10/19/17 12:48
5	7M87275.D	CAL BNA@80PPM	10/19/17 12:25	6	7M87274.D	CAL BNA@120PPM	10/19/17 12:02
7	7M87273.D	CAL BNA@160PPM	10/19/17 11:38	8	7M87272.D	CAL BNA@196PPM	10/19/17 11:15
9	7M87277.D	CAL BNA@.5PPM	10/19/17 13:11				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
4,4'-DDE	1	0	Avg	0.2042	0.2158	0.2049	0.2093	0.2091	0.2205	0.2150	0.2321	-----	0.214	11.46	0.997	0.999	4.3		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDD	1	0	Avg	0.4175	0.3539	0.3849	0.4166	0.4223	0.4306	0.4194	0.4473	-----	0.412	11.85	0.999	1.00	7.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Butylbenzylphthalate	1	0	Qua	0.5234	0.3514	0.4434	0.4967	0.5348	0.5504	0.5355	0.5801	-----	0.502	12.11	0.997	0.999	15	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDT	1	0	Avg	0.3423	0.2404	0.2950	0.3255	0.3494	0.3512	0.3390	0.3595	-----	0.325	12.21	0.999	0.999	12		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3,3'-Dichlorobenzidine	1	0	Qua	0.3023	0.1467	0.1930	0.2385	0.3168	0.3102	0.2746	0.2851	-----	0.258	12.73	0.994	0.997	24	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]anthracene	1	0	Avg	1.0385	1.0903	1.0591	1.0580	1.0319	1.0421	0.9912	1.0797	-----	1.05	12.76	0.997	0.998	2.9	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Chrysene	1	0	Avg	0.9844	1.1113	1.0485	1.0233	0.9460	0.9167	0.8499	0.9176	-----	0.975	12.80	0.998	0.998	8.6	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Ethylhexyl)phthal	1	0	Avg	0.7000	0.4647	0.6166	0.6988	0.6925	0.6769	0.6454	0.6894	-----	0.648	12.80	0.998	0.998	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-octylphthalate	1	0	Qua	1.2329	0.6583	0.9456	1.1463	1.2859	1.3421	1.3389	1.4285	-----	1.17	13.56	0.998	0.999	22	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[b]fluoranthene	1	0	Avg	1.0629	0.9497	1.0063	1.0846	1.0659	1.0534	1.0520	1.1310	-----	1.05	13.98	0.999	0.999	5.1	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[k]fluoranthene	1	0	Avg	1.0662	1.0404	1.1169	1.1024	1.0344	1.0593	0.9859	1.0726	-----	1.06	14.02	0.997	0.997	3.9	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]pyrene	1	0	Avg	1.0452	0.9242	0.9776	1.0516	1.0430	1.0508	1.0016	1.0918	-----	1.02	14.34	0.997	0.998	5.2	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Indeno[1,2,3-cd]pyren	1	0	Avg	1.1022	0.9939	1.0316	1.0710	1.1125	1.1016	1.0130	1.0877	-----	1.06	15.72	0.999	0.999	4.3	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzo[a,h]anthracen	1	0	Avg	0.9136	0.8034	0.8546	0.8834	0.9237	0.9091	0.8451	0.9089	-----	0.880	15.74	0.997	0.997	4.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[g,h,i]perylene	1	0	Avg	0.9236	0.8930	0.9035	0.9130	0.9463	0.9284	0.8479	0.9045	-----	0.908	16.10	0.997	0.997	3.2	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	

Flags	*Note:* Avg Rsd: 9.32
a - failed the min rf criteria	*Corr 1 = Correlation Coefficient for linear Eq.*
c - failed the minimum correlation coeff criteria(if applicable)	*Corr 2 = Correlation Coefficient for quad Eq.*
	Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM
Data File: 7M87278.D
Acq On : 10/19/17 13:35

Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA

Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:27
Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	47969	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.821	152	90204	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	354748	40.00	ng	0.00
50) Acenaphthene-d10	8.262	164	215271	40.00	ng	0.00
77) Phenanthrene-d10	9.720	188	396811	40.00	ng	0.00
91) Chrysene-d12	12.771	240	450319	40.00	ng	0.00
103) Perylene-d12	14.405	264	446458	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	143960	49.88	ng	0.00
Spiked Amount 100.000			Recovery = 49.88%			
16) Phenol-d5	5.495	99	189515	52.43	ng	0.00
Spiked Amount 100.000			Recovery = 52.43%			
32) Nitrobenzene-d5	6.269	128	35812	24.84	ng	0.00
Spiked Amount 50.000			Recovery = 49.68%			
55) 2-Fluorobiphenyl	7.674	172	165410	24.64	ng	0.00
Spiked Amount 50.000			Recovery = 49.28%			
80) 2,4,6-Tribromophenol	8.999	330	40887	48.82	ng	0.00
Spiked Amount 100.000			Recovery = 48.82%			
94) Terphenyl-d14	11.521	244	169441	23.61	ng	0.00
Spiked Amount 50.000			Recovery = 47.22%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	65499	47.3167	ng	99
9) Pyridine	3.075	79	167219	48.9404	ng	71
10) N-Nitrosodimethylamine	3.000	74	99375	50.6547	ng	72
12) Benzaldehyde	5.447	77	79876	69.9776	ng	71
13) Aniline	5.537	93	205818m	48.3236	ng	
14) Pentachloroethane	5.580	117	47670	48.7966	ng	85
15) bis(2-Chloroethyl)ether	5.596	93	155859	52.1251	ng	79
17) Phenol	5.505	94	222823	52.2663	ng	82
18) 2-Chlorophenol	5.634	128	157358	51.9144	ng	82
19) N-Decane	5.682	57	142432	50.0777	ng	93
20) 1,3-Dichlorobenzene	5.767	146	154841	51.6687	ng	99
22) 1,4-Dichlorobenzene	5.831	146	157534	50.2201	ng	97
23) 1,2-Dichlorobenzene	5.959	146	151549	51.5237	ng	99
24) Benzyl alcohol	5.933	108	104223	50.0461	ng	67
25) bis(2-chloroisopropyl)...	6.045	45	190060	51.4685	ng	97
26) 2-Methylphenol	6.018	108	145176	48.8661	ng	98
27) Acetophenone	6.146	105	225964	50.2940	ng	66
28) Hexachloroethane	6.232	117	60494	47.4458	ng	81
29) N-Nitroso-di-n-propyla...	6.146	70	106560	49.3143	ng	83
30) 3&4-Methylphenol	6.141	108	147886	50.8409	ng	97
33) Nitrobenzene	6.285	77	161484	50.6410	ng	77
34) Isophorone	6.472	82	304107	50.8005	ng	87
35) 2-Nitrophenol	6.536	139	78162	49.0524	ng	82
36) 2,4-Dimethylphenol	6.558	107	152886	49.0280	ng	91
37) Benzoic Acid	6.627	105	133111	44.9424	ng	41
38) bis(2-Chloroethoxy)met...	6.633	93	187515	50.0534	ng	97
39) 2,4-Dichlorophenol	6.718	162	121449	51.5187	ng	87
40) 1,2,4-Trichlorobenzene	6.787	180	128872	49.4985	ng	96
41) Naphthalene	6.852	128	448787	50.9416	ng	99
42) 4-Chloroaniline	6.884	127	160504	51.9515	ng	94
43) Hexachlorobutadiene	6.937	225	64984	47.9182	ng	95
44) Caprolactam	7.156	113	60964	52.0666	ng	70
45) 4-Chloro-3-methylphenol	7.242	107	136476	51.8659	ng	84
46) 2-Methylnaphthalene	7.386	142	308200	50.3823	ng	99
47) 1-Methylnaphthalene	7.466	142	294741	50.5426	ng	91
48) Methylnaphthalenes (To...	7.386	142	602656m	100.8910	ng	
49) 1,1'-Biphenyl	7.760	154	358793	50.3037	ng	95
51) 1,2,4,5-Tetrachloroben...	7.514	216	134110	48.7503	ng	97
52) Hexachlorocyclopentadiene	7.503	237	75198	51.6329	ng	99
53) 2,4,6-Trichlorophenol	7.605	196	87653	49.9819	ng	98
54) 2,4,5-Trichlorophenol	7.632	196	91315	51.0270	ng	98
56) 2-Chloronaphthalene	7.781	162	305788	50.4663	ng	93
57) 1,4-Dimethylnaphthalene	8.064	156	224624	50.2351	ng	84
58) Dimethylnaphthalenes (...	8.064	156	224624	50.2351	ng	84
59) Diphenyl Ether	7.845	170	210002	48.5728	ng	77
60) 2-Nitroaniline	7.856	65	104169	51.3481	ng	60
61) Coumarin	8.043	146	121967	51.6809	ng	75
62) Acenaphthylene	8.139	152	447610	49.7434	ng	99
63) Dimethylphthalate	8.000	163	330297	49.8358	ng	98
64) 2,6-Dinitrotoluene	8.059	165	75573	52.7863	ng	66
65) Acenaphthene	8.289	153	291761	50.0184	ng	96

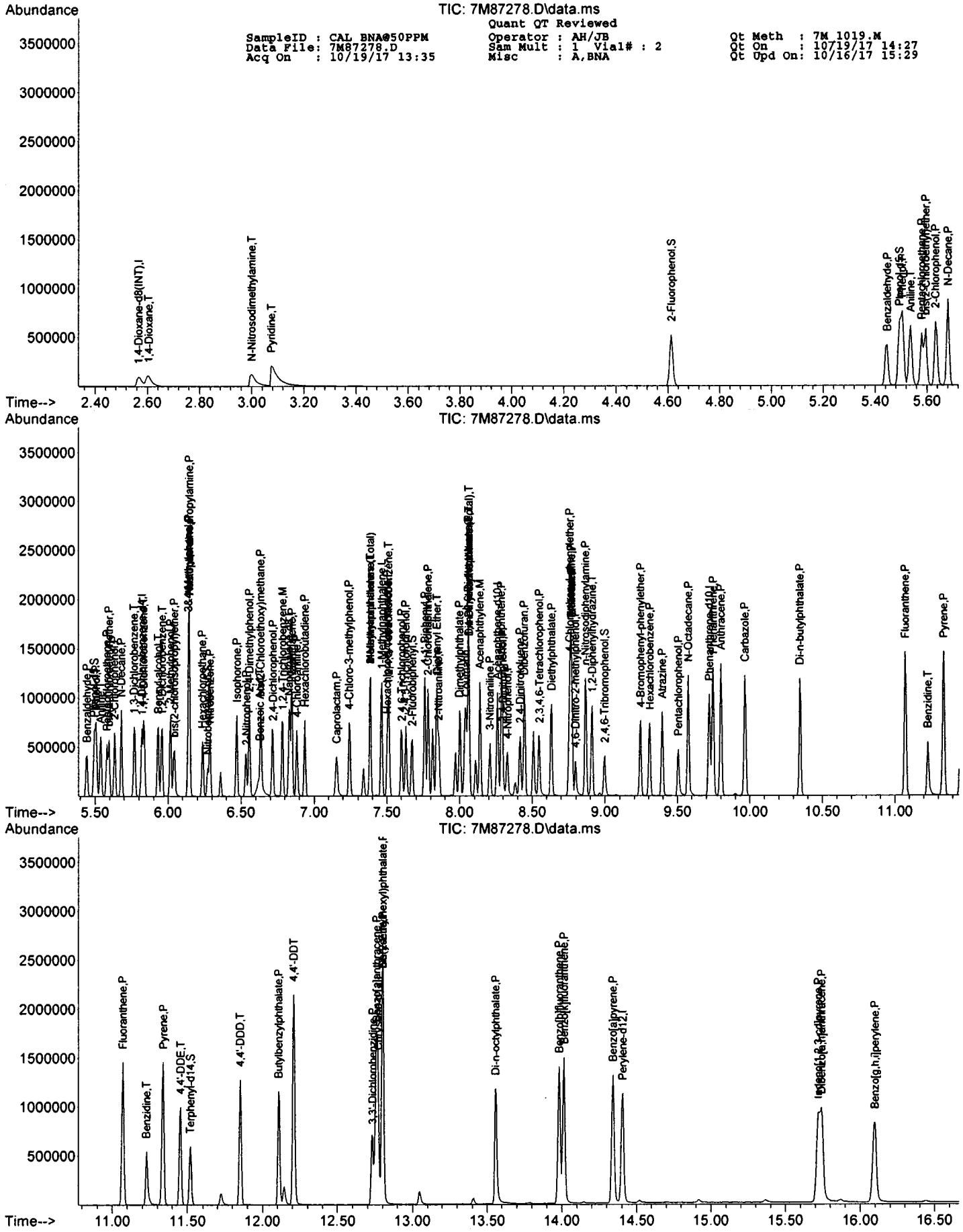
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87278.D Sam Mult : 1 Vial# : 2 Qt On : 10/19/17 14:27
Acq On : 10/19/17 13:35 Misc : A,BNA Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.208	138	82339	45.1902	ng	77
67)	2,4-Dinitrophenol	8.299	184	31202	43.8131	ng	52
68)	Dibenzofuran	8.444	168	421525	51.0774	ng	85
69)	2,4-Dinitrotoluene	8.417	165	105074	50.3109	ng	64
70)	4-Nitrophenol	8.331	65	67467	49.8285	ng	84
71)	2,3,4,6-Tetrachlorophenol	8.550	232	79741	51.1603	ng	82
72)	Fluorene	8.769	166	339072	50.3890	ng	97
73)	4-Chlorophenyl-phenyle...	8.759	204	154190	49.5639	ng	83
74)	Diethylphthalate	8.636	149	344205	50.0120	ng	97
75)	4-Nitroaniline	8.769	138	100268	51.1160	ng	75
76)	Atrazine	9.394	200	87301	51.3681	ng	95
78)	4,6-Dinitro-2-methylph...	8.796	198	50670	47.9152	ng	56
79)	n-Nitrosodiphenylamine	8.866	169	303614	49.4796	ng	98
81)	1,2-Diphenylhydrazine	8.914	77	359380	47.6460	ng	82
82)	4-Bromophenyl-phenylether	9.245	248	93569	49.5157	ng	81
83)	Hexachlorobenzene	9.309	284	95314	48.5790	ng	67
84)	N-Octadecane	9.576	57	206245	49.8885	ng	78
85)	Pentachlorophenol	9.507	266	56014	46.3798	ng	99
86)	Phenanthrene	9.747	178	516841	48.9881	ng	98
87)	Anthracene	9.800	178	530603	50.5686	ng	99
88)	Carbazole	9.966	167	518510	51.0175	ng	97
89)	Di-n-butylphthalate	10.345	149	608508	51.6174	ng	97
90)	Fluoranthene	11.072	202	594572	51.7233	ng	96
92)	Pyrene	11.339	202	622778	47.9398	ng	91
93)	Benzidine	11.227	184	225394	44.9007	ng	90
95)	4,4'-DDE	11.457	246	114967	45.1348	ng	95
96)	4,4'-DDD	11.852	235	235056	48.7182	ng	95
97)	Butylbenzylphthalate	12.108	149	294631	48.2135	ng	76
98)	4,4'-DDT	12.210	235	192700	51.2565	ng	98
99)	3,3'-Dichlorobenzidine	12.733	252	170187	42.7772	ng	96
100)	Benzo[a]anthracene	12.760	228	584592	48.2583	ng	99
101)	Chrysene	12.803	228	554154	50.5484	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.803	149	394047	50.0554	ng	95
104)	Di-n-octylphthalate	13.556	149	688067	44.2281	ng	99
105)	Benzo[b]fluoranthene	13.983	252	593228	48.2122	ng	97
106)	Benzo[k]fluoranthene	14.015	252	595049m	49.2269	ng	
107)	Benzo[a]pyrene	14.341	252	583305	49.6642	ng	94
108)	Indeno[1,2,3-cd]pyrene	15.720	276	615120	51.5032	ng	91
109)	Dibenzo[a,h]anthracene	15.741	278	509882	51.6808	ng	93
110)	Benzo[g,h,i]perylene	16.099	276	515479	50.8641	ng	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87278.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 7M87278.D
Acq On : 10/19/17 13:35
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:27
Qt Upd On: 10/16/17 15:29
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Aniline,P
2-Chlorophenol,P
N-Decane,P
Time-->
Abundance
TIC: 7M87278.D\data.ms
Benzaldehyde,P
Isophorone,P
Caprolactam,P
4-Chloro-3-methylphenol,P
Acenaphthylene,P
3-Nitroaniline,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->
Abundance
TIC: 7M87278.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87270.D Sam Mult : 1 Vial# : 3 Qt On : 10/19/17 10:44
Acq On : 10/19/17 10:27 Misc : A,BNA Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	48164	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	90071	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	367923	40.00	ng	0.00
50) Acenaphthene-d10	8.256	164	221522	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	400067	40.00	ng	0.00
91) Chrysene-d12	12.765	240	432992	40.00	ng	0.00
103) Perylene-d12	14.389	264	407354	40.00	ng	-0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	5508m	1.90	ng	0.00
Spiked Amount 100.000			Recovery = 1.90%			
16) Phenol-d5	5.495	99	7398	2.04	ng	0.00
Spiked Amount 100.000			Recovery = 2.04%			
32) Nitrobenzene-d5	6.269	128	1493	1.00	ng	0.00
Spiked Amount 50.000			Recovery = 2.00%			
55) 2-Fluorobiphenyl	7.669	172	8054	1.17	ng	0.00
Spiked Amount 50.000			Recovery = 2.34%			
80) 2,4,6-Tribromophenol	8.994	330	932	1.14	ng	0.00
Spiked Amount 100.000			Recovery = 1.14%			
94) Terphenyl-d14	11.515	244	6181	0.90	ng	0.00
Spiked Amount 50.000			Recovery = 1.80%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.615	88	3146	2.2635	ng	98
9) Pyridine	3.171	79	6900	2.0113	ng	67
10) N-Nitrosodimethylamine	3.058	74	4147	2.1053	ng	60
12) Benzaldehyde	5.446	77	3656	2.0463	ng	72
13) Aniline	5.537	93	5948m	1.3909	ng	
14) Pentachloroethane	5.580	117	2167	2.2092	ng	83
15) bis(2-Chloroethyl)ether	5.596	93	7189	2.3417	ng	79
17) Phenol	5.505	94	8953	2.0916	ng	81
18) 2-Chlorophenol	5.633	128	5958	1.9577	ng	83
19) N-Decane	5.682	57	6979	2.4438	ng	96
20) 1,3-Dichlorobenzene	5.767	146	7335	2.3862	ng	99
22) 1,4-Dichlorobenzene	5.831	146	7438	2.3515	ng	97
23) 1,2-Dichlorobenzene	5.954	146	7335	2.4873	ng	90
24) Benzyl alcohol	5.927	108	4092	1.9678	ng	64
25) bis(2-chloroisopropyl)...	6.039	45	9217	2.4666	ng	99
26) 2-Methylphenol	6.018	108	5756	1.9403	ng	86
27) Acetophenone	6.146	105	10508	2.3423	ng	63
28) Hexachloroethane	6.232	117	2817	2.2127	ng	80
29) N-Nitroso-di-n-propyla...	6.141	70	4954	2.2960	ng	80
30) 3&4-Methylphenol	6.136	108	5886	2.0265	ng	98
33) Nitrobenzene	6.280	77	7007	2.1187	ng	83
34) Isophorone	6.467	82	12365	1.9916	ng	93
35) 2-Nitrophenol	6.531	139	2578	1.5781	ng	90
36) 2,4-Dimethylphenol	6.552	107	6185	1.9124	ng	87
37) Benzoic Acid	0.000		0	N.D.	d	
38) bis(2-Chloroethoxy)met...	6.632	93	8555	2.2018	ng	96
39) 2,4-Dichlorophenol	6.713	162	4284	1.7522	ng	87
40) 1,2,4-Trichlorobenzene	6.782	180	6128	2.2694	ng	100
41) Naphthalene	6.846	128	22848	2.4386	ng	98
42) 4-Chloroaniline	6.884	127	4712	1.4706	ng	92
43) Hexachlorobutadiene	6.932	225	3087	2.1948	ng	97
44) Caprolactam	7.129	113	2007	1.6527	ng	69
45) 4-Chloro-3-methylphenol	7.236	107	4974	1.8226	ng	84
46) 2-Methylnaphthalene	7.380	142	14477	2.2818	ng	95
47) 1-Methylnaphthalene	7.460	142	13821	2.2852	ng	91
48) Methylnaphthalenes (To...	7.380	142	28302m	4.5684	ng	
49) 1,1'-Biphenyl	7.754	154	17024	2.3013	ng	95
51) 1,2,4,5-Tetrachloroben...	7.509	216	6637	2.3445	ng	96
52) Hexachlorocyclopentadiene	7.498	237	3026	2.0191	ng	90
53) 2,4,6-Trichlorophenol	7.599	196	2560	1.4186	ng	87
54) 2,4,5-Trichlorophenol	7.626	196	3077	1.6709	ng	94
56) 2-Chloronaphthalene	7.776	162	13246m	2.1244	ng	
57) 1,4-Dimethylnaphthalene	8.053	156	11022	2.3954	ng	87
58) Dimethylnaphthalenes (...	8.053	156	11022	2.3954	ng	87
59) Diphenyl Ether	7.840	170	10230	2.2994	ng	76
60) 2-Nitroaniline	7.850	65	3928	1.8816	ng	61
61) Coumarin	8.032	146	5339	2.1984	ng	72
62) Acenaphthylene	8.134	152	19658	2.1230	ng	96
63) Dimethylphthalate	7.995	163	14796	2.1694	ng	96
64) 2,6-Dinitrotoluene	8.053	165	2991	2.0302	ng	67
65) Acenaphthene	8.283	153	14123	2.3529	ng	93

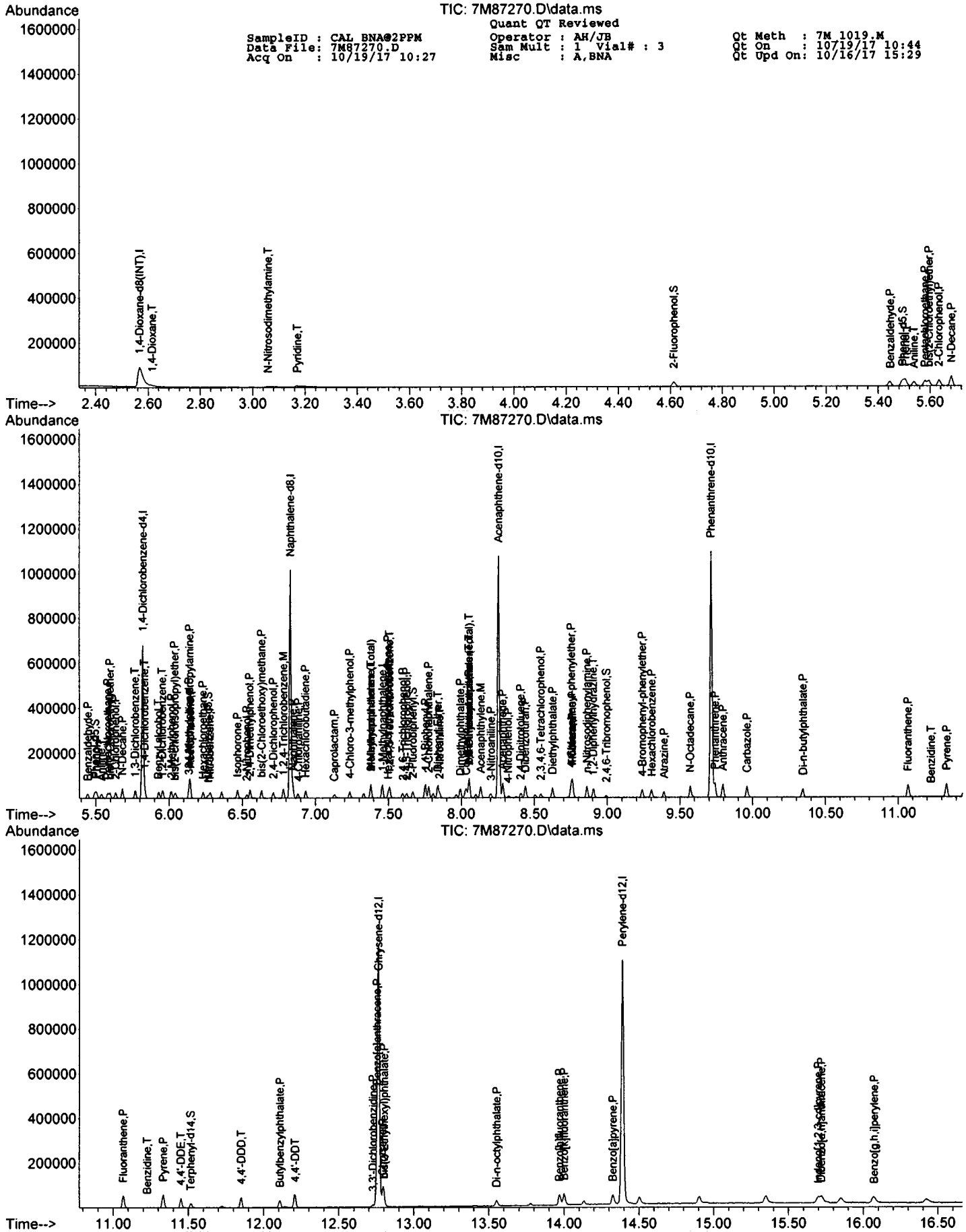
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87270.D Sam Mult : 1 Vial# : 3 Qt On : 10/19/17 10:44
Acq On : 10/19/17 10:27 Misc : A,BNA Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.203	138	2596	1.3309	ng	74
67)	2,4-Dinitrophenol	0.000		0	N.D.		
68)	Dibenzofuran	8.438	168	20338	2.3378	ng	84
69)	2,4-Dinitrotoluene	8.406	165	3281	1.5340	ng	69
70)	4-Nitrophenol	8.321	65	1401	1.0215	ng	87
71)	2,3,4,6-Tetrachlorophenol	8.545	232	2387	1.4882	ng	86
72)	Fluorene	8.759	166	15398	2.2237	ng	96
73)	4-Chlorophenyl-phenyle...	8.753	204	7066	2.2073	ng	82
74)	Diethylphthalate	8.625	149	14674	2.0719	ng	97
75)	4-Nitroaniline	8.759	138	2711	1.3440	ng	74
76)	Atrazine	9.389	200	2894	1.6548	ng	92
78)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
79)	n-Nitrosodiphenylamine	8.860	169	12261	1.9819	ng	93
81)	1,2-Diphenylhydrazine	8.903	77	15774	2.0743	ng	89
82)	4-Bromophenyl-phenylether	9.239	248	3962	2.0796	ng	86
83)	Hexachlorobenzene	9.304	284	4556	2.3032	ng	70
84)	N-Octadecane	9.571	57	8323	1.9969	ng	78
85)	Pentachlorophenol	0.000		0	N.D. d		
86)	Phenanthrene	9.742	178	24614	2.3140	ng	97
87)	Anthracene	9.795	178	22600	2.1363	ng	98
88)	Carbazole	9.961	167	19268	1.8804	ng	96
89)	Di-n-butylphthalate	10.345	149	20272	1.7056	ng	96
90)	Fluoranthene	11.067	202	23491	2.0269	ng	95
92)	Pyrene	11.334	202	24782	1.9840	ng	94
93)	Benzidine	11.227	184	1552	0.2926	ng	64
95)	4,4'-DDE	11.451	246	4674	1.9084	ng	95
96)	4,4'-DDD	11.852	235	7662	1.6516	ng	93
97)	Butylbenzylphthalate	12.108	149	7609	1.2950	ng	73
98)	4,4'-DDT	12.210	235	5205	1.4399	ng	93
99)	3,3'-Dichlorobenzidine	12.728	252	3178	0.7967	ng	93
100)	Benzo[a]anthracene	12.755	228	23605	2.0266	ng	95
101)	Chrysene	12.792	228	24061	2.2826	ng	97
102)	bis(2-Ethylhexyl)phtha...	12.803	149	10062	1.3293	ng	95
104)	Di-n-octylphthalate	13.551	149	13408	0.9620	ng	97
105)	Benzo[b]fluoranthene	13.967	252	19344	1.7230	ng	100
106)	Benzo[k]fluoranthene	13.999	252	21192	1.9215	ng	96
107)	Benzo[a]pyrene	14.325	252	18824	1.7566	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.698	276	20244	1.8577	ng	95
109)	Dibenzo[a,h]anthracene	15.720	278	16365	1.8180	ng	92
110)	Benzo[g,h,i]perylene	16.072	276	18190	1.9672	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87270.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@2PPM
Data File: 7M87270.D
Acq On : 10/19/17 10:27
Operator : AH/JB
Sam Mult : 1 Vial# : 3
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 10:44
Qt Upd On: 10/16/17 15:29
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Phenol-d5,S
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Isophorone,P
bis(2-Chloroethoxy)methane,P
2,4-Dichlorophenol,P
1,2,4-Trichlorobenzene,M
Hexachlorobutadiene,P
Caprolactam,P
4-Chloro-3-methylphenol,P
3-Nitroaniline,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
2,4,6-Tribromophenol,S
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Perylene-d12,I
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Chrysene-d12,I
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Benzo(g,h,i)perylene,P

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM
Data File: 7M87271.D
Acq On : 10/19/17 10:51

Operator : AH/JB
Sam Mult : 1 Vial# : 4
Misc : A,BNA

Qt Meth : 7M_1019.M
Qt On : 10/19/17 11:10
Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	45704	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	83537	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	337736	40.00	ng	0.00
50) Acenaphthene-d10	8.262	164	201429	40.00	ng	0.00
77) Phenanthrene-d10	9.720	188	361587	40.00	ng	0.00
91) Chrysene-d12	12.765	240	397913	40.00	ng	0.00
103) Perylene-d12	14.389	264	375050	40.00	ng	-0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	24416	8.88	ng	0.00
Spiked Amount 100.000			Recovery =	8.88%		
16) Phenol-d5	5.494	99	32324	9.38	ng	0.00
Spiked Amount 100.000			Recovery =	9.38%		
32) Nitrobenzene-d5	6.269	128	6410	4.67	ng	0.00
Spiked Amount 50.000			Recovery =	9.34%		
55) 2-Fluorobiphenyl	7.674	172	31293	4.98	ng	0.00
Spiked Amount 50.000			Recovery =	9.96%		
80) 2,4,6-Tribromophenol	8.999	330	5789	7.81	ng	0.00
Spiked Amount 100.000			Recovery =	7.81%		
94) Terphenyl-d14	11.520	244	28475	4.49	ng	0.00
Spiked Amount 50.000			Recovery =	8.98%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.610	88	13233	10.0333	ng	98
9) Pyridine	3.117	79	29957	9.2021	ng	67
10) N-Nitrosodimethylamine	3.021	74	17599	9.4154	ng	72
12) Benzaldehyde	5.446	77	15355	9.4238	ng	69
13) Aniline	5.537	93	24495m	6.0362	ng	
14) Pentachloroethane	5.580	117	8818	9.4737	ng	83
15) bis(2-Chloroethyl)ether	5.596	93	29838	10.2785	ng	81
17) Phenol	5.505	94	38481	9.4736	ng	80
18) 2-Chlorophenol	5.633	128	27373	9.4782	ng	81
19) N-Decane	5.681	57	27906	10.2977	ng	94
20) 1,3-Dichlorobenzene	5.767	146	29954	10.3040	ng	98
22) 1,4-Dichlorobenzene	5.831	146	30184	10.3056	ng	100
23) 1,2-Dichlorobenzene	5.959	146	29236	10.6966	ng	96
24) Benzyl alcohol	5.927	108	17699	9.1770	ng	73
25) bis(2-chloroisopropyl)...	6.045	45	37107	10.7308	ng	96
26) 2-Methylphenol	6.018	108	25859	9.3988	ng	96
27) Acetophenone	6.146	105	45172	10.8566	ng	61
28) Hexachloroethane	6.232	117	11652	9.8681	ng	78
29) N-Nitroso-di-n-propyla...	6.141	70	20774	10.3812	ng	81
30) 3&4-Methylphenol	6.141	108	26931	9.9974	ng	97
33) Nitrobenzene	6.285	77	30096	9.9134	ng	77
34) Isophorone	6.467	82	54630	9.5855	ng	90
35) 2-Nitrophenol	6.531	139	12129	8.0756	ng	88
36) 2,4-Dimethylphenol	6.558	107	28155	9.4836	ng	94
37) Benzoic Acid	6.595	105	5552	2.1412	ng	57
38) bis(2-Chloroethoxy)met...	6.632	93	36000	10.0935	ng	95
39) 2,4-Dichlorophenol	6.712	162	20425	9.1007	ng	92
40) 1,2,4-Trichlorobenzene	6.782	180	25133	10.1396	ng	96
41) Naphthalene	6.846	128	89873m	10.4929	ng	
42) 4-Chloroaniline	6.883	127	20017	6.8054	ng	90
43) Hexachlorobutadiene	6.937	225	12656	9.8024	ng	98
44) Caprolactam	7.140	113	8851	7.9400	ng	65
45) 4-Chloro-3-methylphenol	7.241	107	23691	9.4570	ng	84
46) 2-Methylnaphthalene	7.386	142	59541	10.2236	ng	98
47) 1-Methylnaphthalene	7.466	142	58432	10.5247	ng	95
48) Methylnaphthalenes (To...	7.386	142	117955m	20.7416	ng	
49) 1,1'-Biphenyl	7.760	154	70301	10.3529	ng	95
51) 1,2,4,5-Tetrachloroben...	7.514	216	25868	10.0495	ng	97
52) Hexachlorocyclopentadiene	7.503	237	12921	9.4816	ng	94
53) 2,4,6-Trichlorophenol	7.605	196	15079	9.1893	ng	98
54) 2,4,5-Trichlorophenol	7.631	196	14499	8.6588	ng	98
56) 2-Chloronaphthalene	7.781	162	54082m	9.5389	ng	
57) 1,4-Dimethylnaphthalene	8.059	156	45181	10.7987	ng	85
58) Dimethylnaphthalenes (...	8.059	156	45181	10.7987	ng	85
59) Diphenyl Ether	7.845	170	41570	10.2757	ng	76
60) 2-Nitroaniline	7.856	65	17888	9.4235	ng	59
61) Coumarin	8.043	146	23305	10.5536	ng	76
62) Acenaphthylene	8.139	152	85775	10.1873	ng	100
63) Dimethylphthalate	8.000	163	62824	10.1304	ng	97
64) 2,6-Dinitrotoluene	8.059	165	13924	10.3940	ng	66
65) Acenaphthene	8.288	153	56809	10.4084	ng	95

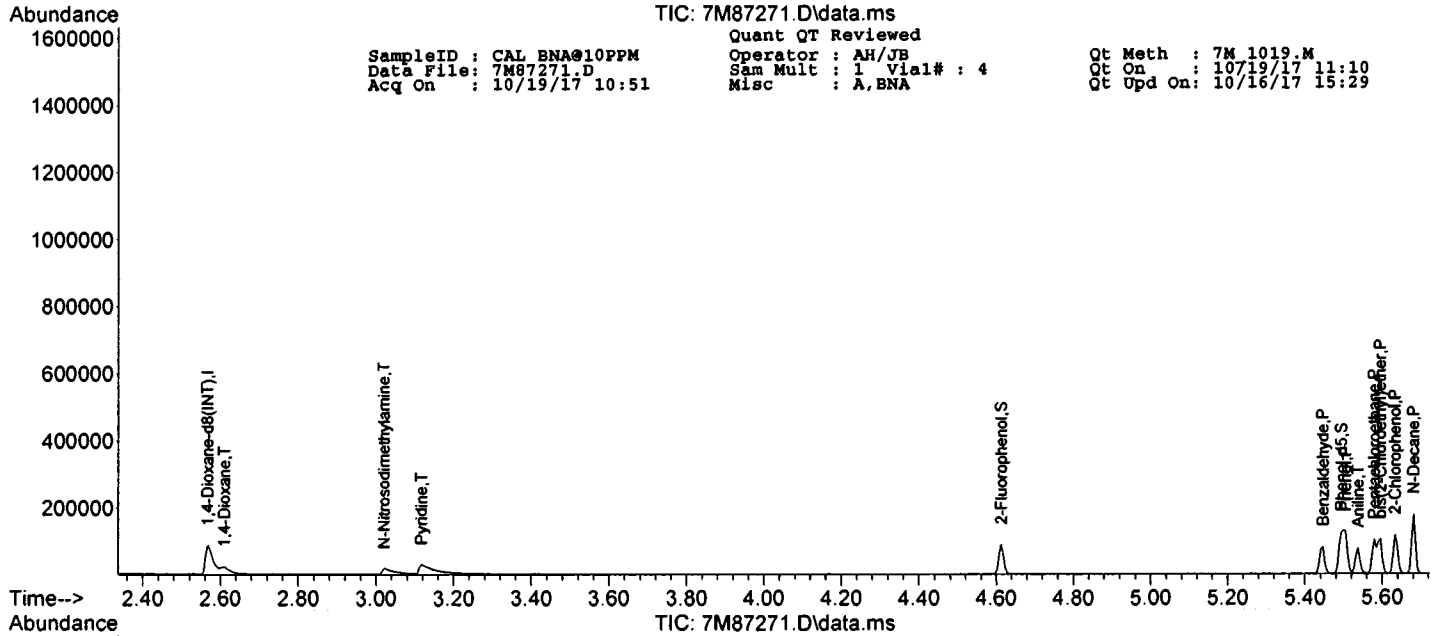
Quantitation Report (QT Reviewed)

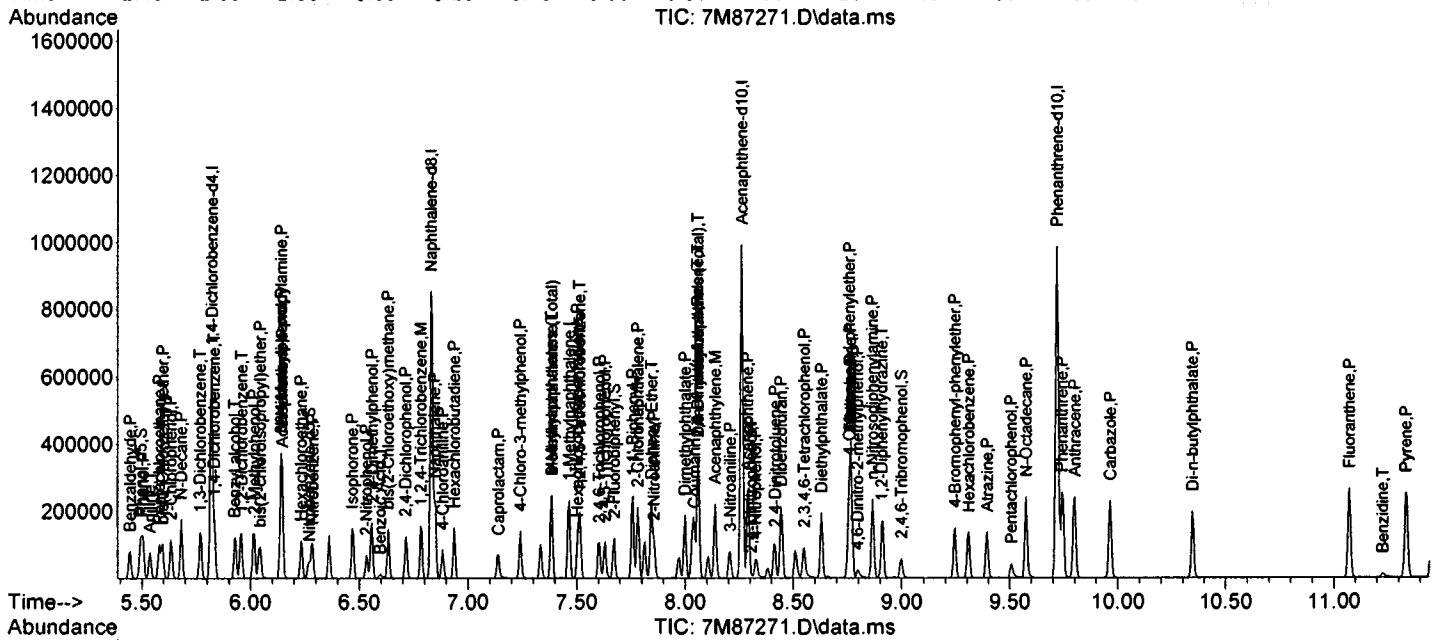
SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87271.D Sam Mult : 1 Vial# : 4 Qt On : 10/19/17 11:10
Acq On : 10/19/17 10:51 Misc : A,BNA Qt Upd On: 10/16/17 15:29

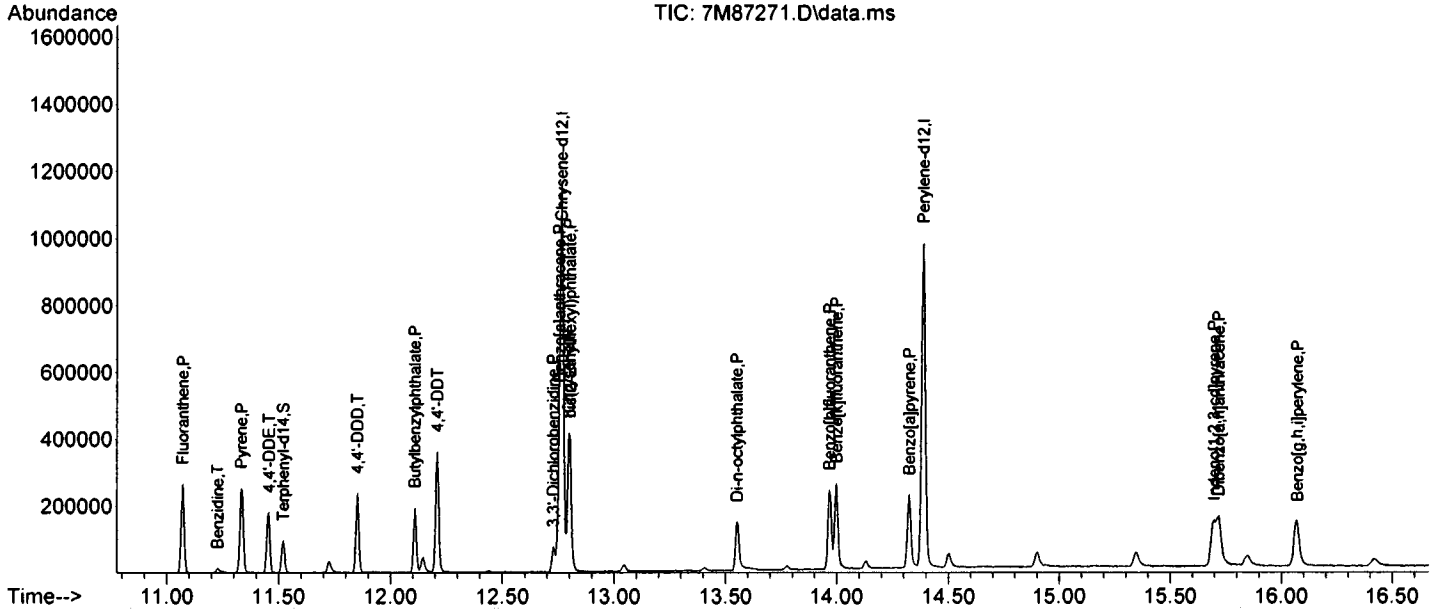
Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.208	138	12463	7.0626	ng	73
67)	2,4-Dinitrophenol	8.304	184	1466	2.4157	ng	36
68)	Dibenzofuran	8.443	168	82038	10.4117	ng	84
69)	2,4-Dinitrotoluene	8.417	165	16777	8.6202	ng	58
70)	4-Nitrophenol	8.326	65	9732	7.7868	ng	94
71)	2,3,4,6-Tetrachlorophenol	8.550	232	12403	8.5044	ng	87
72)	Fluorene	8.764	166	65974	10.4780	ng	97
73)	4-Chlorophenyl-phenyle...	8.759	204	29831	10.2480	ng	82
74)	Diethylphthalate	8.630	149	62468	9.7001	ng	98
75)	4-Nitroaniline	8.764	138	16255	8.8616	ng	75
76)	Atrazine	9.394	200	13948	8.7710	ng	90
78)	4,6-Dinitro-2-methylph...	8.796	198	4421	4.8806	ng	57
79)	n-Nitrosodiphenylamine	8.865	169	55737	9.9683	ng	97
81)	1,2-Diphenylhydrazine	8.908	77	69580	10.1234	ng	91
82)	4-Bromophenyl-phenylether	9.245	248	16298	9.4649	ng	86
83)	Hexachlorobenzene	9.309	284	17961	10.0460	ng	64
84)	N-Octadecane	9.576	57	39064	10.3697	ng	77
85)	Pentachlorophenol	9.506	266	6114	5.7540	ng	93
86)	Phenanthrene	9.742	178	100080	10.4100	ng	99
87)	Anthracene	9.800	178	97260	10.1722	ng	99
88)	Carbazole	9.966	167	93012	10.0432	ng	96
89)	Di-n-butylphthalate	10.345	149	99925	9.3020	ng	97
90)	Fluoranthene	11.072	202	104821	10.0069	ng	97
92)	Pyrene	11.333	202	112572	9.8068	ng	95
93)	Benzidine	11.227	184	8123	1.6713	ng	89
95)	4,4'-DDE	11.456	246	20392	9.0600	ng	97
96)	4,4'-DDD	11.852	235	38295	8.9824	ng	93
97)	Butylbenzylphthalate	12.108	149	44115	8.1698	ng	77
98)	4,4'-DDT	12.210	235	29350	8.8350	ng	95
99)	3,3'-Dichlorobenzidine	12.728	252	19202	5.2613	ng	97
100)	Benzo[a]anthracene	12.755	228	105357	9.8427	ng	98
101)	Chrysene	12.797	228	104303	10.7673	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.803	149	61338	8.8179	ng	95
104)	Di-n-octylphthalate	13.551	149	88667	6.8925	ng	100
105)	Benzo[b]fluoranthene	13.967	252	94357	9.1285	ng	99
106)	Benzo[k]fluoranthene	13.999	252	104724m	10.3131	ng	
107)	Benzo[a]pyrene	14.325	252	91668	9.2909	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.698	276	96730	9.6411	ng	89
109)	Dibenzo[a,h]anthracene	15.719	278	80138	9.6692	ng	94
110)	Benzo[g,h,i]perylene	16.072	276	84720	9.9513	ng	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87271.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@10PPM
Data File: 7M87271.D
Acq On : 10/19/17 10:51
Operator : AH/JB
Sam Mult : 1 Vial# : 4
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 11:10
Qt Upd On: 10/16/17 15:29
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Phenol-d5,S
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 7M87271.D\data.ms
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2,4-Dichlorophenol,P
1,2,4-Trichlorobenzene,M
Hexachlorobutadiene,P
Dimethylphthalate,P
Acenaphthylene,M
3-Nitroaniline,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
2,4,6-Tribromophenol,S
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 7M87271.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
3,3'-Dichlorobenzidine,P
Chrysene-d12,I
Di-n-octylphthalate,P
Benzo(b)fluoranthene,P
Benzo(k)fluoranthene,P
Perylene-d12,I
Benzo(a)pyrene,P
Indeno(1,2,3-cd)pyrene,P
Dibenz(a,h)anthracene,P
Benzo(g,h,i)perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87276.D Sam Mult : 1 Vial# : 9 Qt On : 10/19/17 14:16
Acq On : 10/19/17 12:48 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	50976	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	92669	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	353750	40.00	ng	0.00
50) Acenaphthene-d10	8.256	164	204711	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	363279	40.00	ng	0.00
91) Chrysene-d12	12.765	240	405369	40.00	ng	0.00
103) Perylene-d12	14.389	264	384315	40.00	ng	-0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	58218	18.98	ng	0.00
Spiked Amount 100.000			Recovery = 18.98%			
16) Phenol-d5	5.495	99	73124	19.03	ng	0.00
Spiked Amount 100.000			Recovery = 19.03%			
32) Nitrobenzene-d5	6.269	128	13836	9.62	ng	0.00
Spiked Amount 50.000			Recovery = 19.24%			
55) 2-Fluorobiphenyl	7.669	172	64595	10.12	ng	0.00
Spiked Amount 50.000			Recovery = 20.24%			
80) 2,4,6-Tribromophenol	8.994	330	13959	19.11	ng	0.00
Spiked Amount 100.000			Recovery = 19.11%			
94) Terphenyl-d14	11.521	244	60859	9.42	ng	0.00
Spiked Amount 50.000			Recovery = 18.84%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	27755	18.8676	ng	99
9) Pyridine	3.096	79	66974	18.4452	ng	69
10) N-Nitrosodimethylamine	3.010	74	40053	19.2120	ng	70
12) Benzaldehyde	5.446	77	32923	22.0842	ng	70
13) Aniline	5.537	93	62285m	13.7611	ng	
14) Pentachloroethane	5.580	117	19676	18.9529	ng	84
15) bis(2-Chloroethyl)ether	5.596	93	65438	19.3835	ng	78
17) Phenol	5.505	94	86714	19.1402	ng	80
18) 2-Chlorophenol	5.633	128	61796	19.1847	ng	81
19) N-Decane	5.681	57	62292	20.6093	ng	92
20) 1,3-Dichlorobenzene	5.767	146	64775	19.8772	ng	98
22) 1,4-Dichlorobenzene	5.831	146	66658	19.9337	ng	97
23) 1,2-Dichlorobenzene	5.959	146	63570	20.0742	ng	98
24) Benzyl alcohol	5.927	108	40351	18.8605	ng	74
25) bis(2-chloroisopropyl)...	6.039	45	76587	19.2542	ng	96
26) 2-Methylphenol	6.018	108	58036	19.0152	ng	99
27) Acetophenone	6.146	105	94422	20.4570	ng	62
28) Hexachloroethane	6.232	117	25440	19.4220	ng	80
29) N-Nitroso-di-n-propyla...	6.141	70	44184	19.9038	ng	82
30) 3&4-Methylphenol	6.141	108	59511	19.9148	ng	100
33) Nitrobenzene	6.280	77	64110	20.1614	ng	82
34) Isophorone	6.467	82	117421	19.6703	ng	88
35) 2-Nitrophenol	6.531	139	29437	19.5000	ng	86
36) 2,4-Dimethylphenol	6.552	107	60343	19.4056	ng	92
37) Benzoic Acid	6.600	105	33128	11.9286	ng	45
38) bis(2-Chloroethoxy)met...	6.632	93	76382	20.4462	ng	97
39) 2,4-Dichlorophenol	6.713	162	47362	20.1477	ng	86
40) 1,2,4-Trichlorobenzene	6.782	180	52634	20.2733	ng	97
41) Naphthalene	6.846	128	187520	19.9132	ng	99
42) 4-Chloroaniline	6.878	127	47805	15.5171	ng	94
43) Hexachlorobutadiene	6.932	225	27092	20.0336	ng	98
44) Caprolactam	7.140	113	21001	17.9866	ng	66
45) 4-Chloro-3-methylphenol	7.236	107	50108	19.0966	ng	82
46) 2-Methylnaphthalene	7.380	142	125330	20.5458	ng	97
47) 1-Methylnaphthalene	7.460	142	115935	19.9368	ng	91
48) Methylnaphthalenes (To...	7.380	142	241218m	40.4964	ng	
49) 1,1'-Biphenyl	7.749	154	140239	19.7173	ng	96
51) 1,2,4,5-Tetrachloroben...	7.509	216	53206	20.3386	ng	98
52) Hexachlorocyclopentadiene	7.498	237	28572	20.6303	ng	97
53) 2,4,6-Trichlorophenol	7.594	196	32042	19.2136	ng	98
54) 2,4,5-Trichlorophenol	7.626	196	35246	20.7115	ng	98
56) 2-Chloronaphthalene	7.776	162	112561m	19.5350	ng	
57) 1,4-Dimethylnaphthalene	8.053	156	89299	21.0011	ng	86
58) Dimethylnaphthalenes (...	8.053	156	89299	21.0011	ng	86
59) Diphenyl Ether	7.840	170	84854	20.6389	ng	74
60) 2-Nitroaniline	7.850	65	38836	20.1310	ng	52
61) Coumarin	8.032	146	46655	20.7888	ng	76
62) Acenaphthylene	8.134	152	175890	20.5552	ng	99
63) Dimethylphthalate	7.995	163	127217	20.1849	ng	98
64) 2,6-Dinitrotoluene	8.053	165	29020	21.3155	ng	64
65) Acenaphthene	8.283	153	113085	20.3869	ng	98

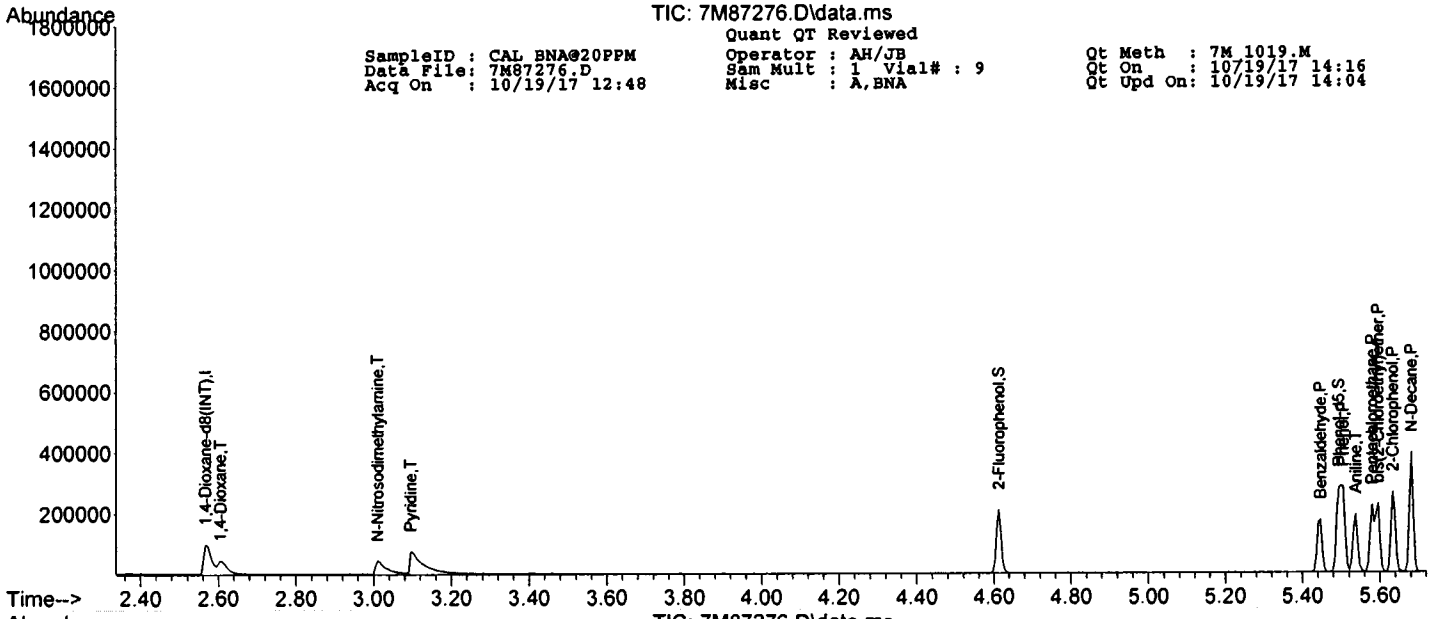
Quantitation Report (QT Reviewed)

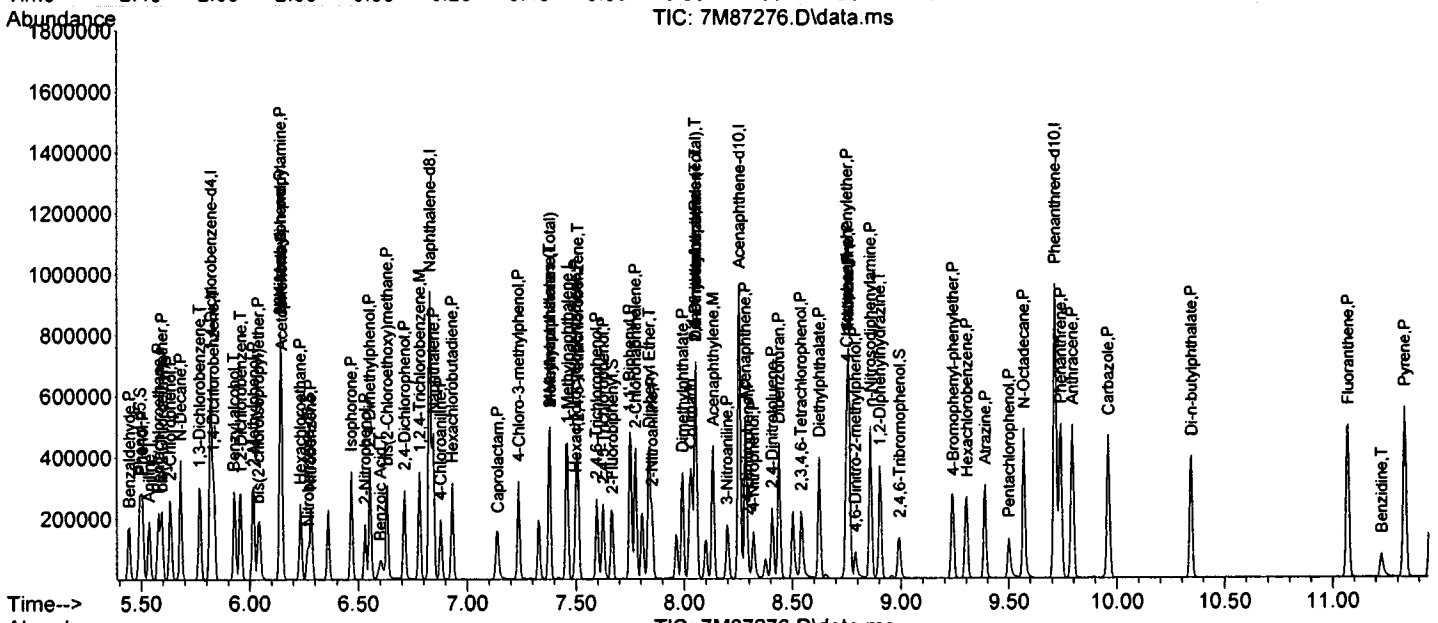
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Data File: 7M87276.D Sam Mult : 1 Vial# : 9 Qt On : 10/19/17 14:16
Acq On : 10/19/17 12:48 Misc : A,BNA Qt Upd On: 10/19/17 14:04

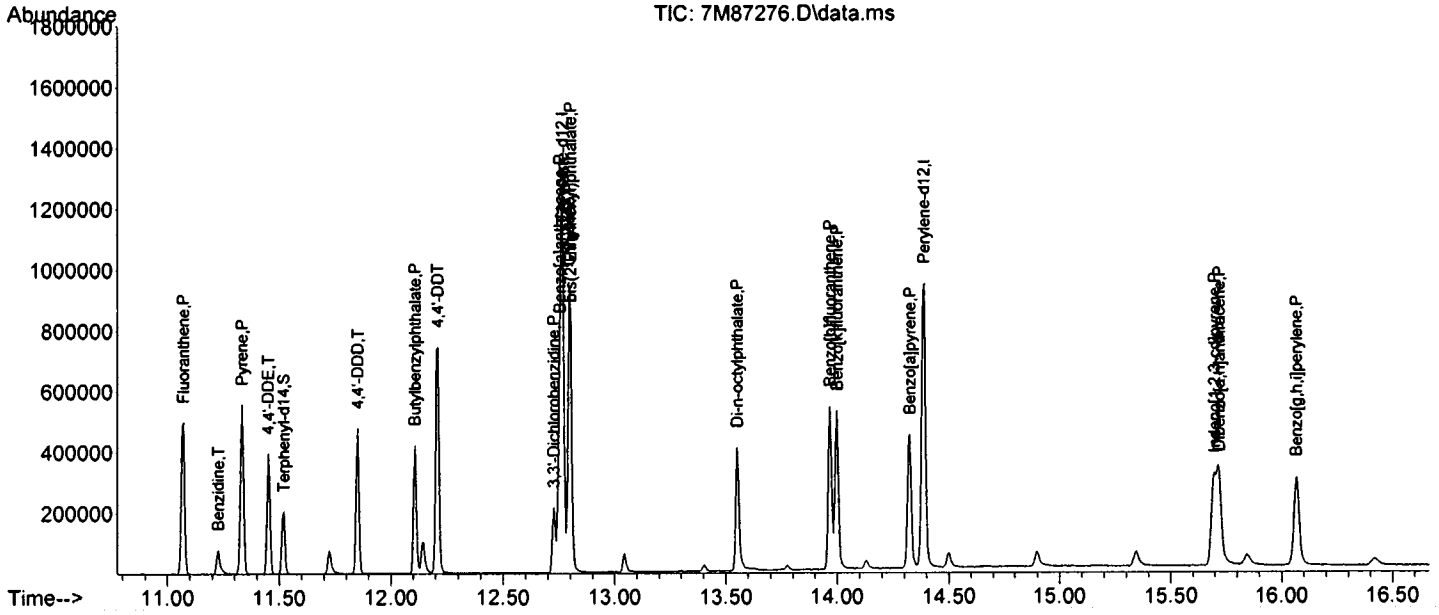
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Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.198	138	27420	17.6531	ng	83
67)	2,4-Dinitrophenol	8.294	184	6812	10.5380	ng	57
68)	Dibenzofuran	8.438	168	161993	19.4308	ng	84
69)	2,4-Dinitrotoluene	8.406	165	37194	19.8851	ng	68
70)	4-Nitrophenol	8.321	65	22500	19.0880	ng	85
71)	2,3,4,6-Tetrachlorophenol	8.540	232	27749	18.7216	ng	82
72)	Fluorene	8.759	166	129791	20.2830	ng	97
73)	4-Chlorophenyl-phenyle...	8.753	204	59659	20.1665	ng	80
74)	Diethylphthalate	8.625	149	130535	19.9447	ng	98
75)	4-Nitroaniline	8.759	138	35186	19.7778	ng	78
76)	Atrazine	9.389	200	31281	19.3553	ng	97
78)	4,6-Dinitro-2-methylph...	8.791	198	13726	14.8182	ng	60
79)	n-Nitrosodiphenylamine	8.860	169	114733	20.4238	ng	95
81)	1,2-Diphenylhydrazine	8.903	77	137825	19.9592	ng	87
82)	4-Bromophenyl-phenylether	9.239	248	34092	19.7064	ng	83
83)	Hexachlorobenzene	9.304	284	36444	20.2890	ng	65
84)	N-Octadecane	9.571	57	79431	20.9870	ng	78
85)	Pentachlorophenol	9.501	266	15753	14.8640	ng	94
86)	Phenanthrene	9.742	178	197128	20.4092	ng	99
87)	Anthracene	9.795	178	199191	20.7360	ng	99
88)	Carbazole	9.961	167	189996	20.4197	ng	96
89)	Di-n-butylphthalate	10.345	149	215468	19.9644	ng	97
90)	Fluoranthene	11.072	202	217498	20.6672	ng	96
92)	Pyrene	11.334	202	228958	19.5789	ng	94
93)	Benzidine	11.227	184	38105	10.3241	ng	87
95)	4,4'-DDE	11.451	246	42439	18.5086	ng	97
96)	4,4'-DDD	11.852	235	84452	19.4446	ng	95
97)	Butylbenzylphthalate	12.108	149	100688	18.3037	ng	73
98)	4,4'-DDT	12.210	235	65978	19.4956	ng	99
99)	3,3'-Dichlorobenzidine	12.728	252	48343	15.8976	ng	97
100)	Benzo[a]anthracene	12.755	228	214450	19.6659	ng	100
101)	Chrysene	12.797	228	207412	21.0175	ng	97
102)	bis(2-Ethylhexyl)phtha...	12.803	149	141643	19.9879	ng	93
104)	Di-n-octylphthalate	13.551	149	220284	17.6196	ng	99
105)	Benzo[b]fluoranthene	13.967	252	208414	19.6768	ng	96
106)	Benzo[k]fluoranthene	13.999	252	211847m	20.3594	ng	
107)	Benzo[a]pyrene	14.325	252	202083	19.9881	ng	94
108)	Indeno[1,2,3-cd]pyrene	15.698	276	205804	20.0180	ng	88
109)	Dibenzo[a,h]anthracene	15.720	278	169754	19.9882	ng	92
110)	Benzo[g,h,i]perylene	16.067	276	175447	20.1113	ng	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87276.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@20PPM
Data File: 7M87276.D
Acq On : 10/19/17 12:48
Operator : AH/JB
Sam Mult : 1 Vial# : 9
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:16
Qt Upd On: 10/19/17 14:04
Abundance
Time-->


TIC: 7M87276.D\data.ms
Abundance
Time-->


TIC: 7M87276.D\data.ms
Abundance
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87275.D Sam Mult : 1 Vial# : 8 Qt On : 10/19/17 14:07
Acq On : 10/19/17 12:25 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	43489	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	85499	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	347381	40.00	ng	0.00
50) Acenaphthene-d10	8.257	164	216607	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	407932	40.00	ng	0.00
91) Chrysene-d12	12.771	240	459088	40.00	ng	0.00
103) Perylene-d12	14.395	264	459411	40.00	ng	-0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	228382	87.28	ng	0.00
Spiked Amount 100.000			Recovery = 87.28%			
16) Phenol-d5	5.495	99	291888	89.06	ng	0.00
Spiked Amount 100.000			Recovery = 89.06%			
32) Nitrobenzene-d5	6.269	128	56120	39.75	ng	0.00
Spiked Amount 50.000			Recovery = 79.50%			
55) 2-Fluorobiphenyl	7.669	172	256380	37.96	ng	0.00
Spiked Amount 50.000			Recovery = 75.92%			
80) 2,4,6-Tribromophenol	8.994	330	69996	85.33	ng	0.00
Spiked Amount 100.000			Recovery = 85.33%			
94) Terphenyl-d14	11.521	244	283776	38.79	ng	0.00
Spiked Amount 50.000			Recovery = 77.58%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	92574	73.7649	ng	99
9) Pyridine	3.069	79	260306	84.0326	ng	70
10) N-Nitrosodimethylamine	2.994	74	152944	85.9916	ng	69
12) Benzaldehyde	5.441	77	119248	93.7604	ng	79
13) Aniline	5.537	93	327317m	84.7669	ng	
14) Pentachloroethane	5.580	117	73722	83.2383	ng	87
15) bis(2-Chloroethyl)ether	5.596	93	234826	81.5333	ng	78
17) Phenol	5.511	94	340312	88.0481	ng	79
18) 2-Chlorophenol	5.639	128	241633	87.9299	ng	78
19) N-Decane	5.682	57	204180	79.1828	ng	91
20) 1,3-Dichlorobenzene	5.772	146	230116	82.7715	ng	97
22) 1,4-Dichlorobenzene	5.831	146	235454	76.3159	ng	97
23) 1,2-Dichlorobenzene	5.959	146	226320	77.4610	ng	98
24) Benzyl alcohol	5.933	108	161517	81.8257	ng	68
25) bis(2-chloroisopropyl)...	6.045	45	281633	76.7411	ng	98
26) 2-Methylphenol	6.018	108	223851	79.4945	ng	98
27) Acetophenone	6.146	105	334605	78.5732	ng	69
28) Hexachloroethane	6.232	117	92852	76.8319	ng	80
29) N-Nitroso-di-n-propyla...	6.146	70	159099	77.6803	ng	84
30) 3&4-Methylphenol	6.141	108	227892	82.6571	ng	99
33) Nitrobenzene	6.285	77	243830	78.0861	ng	77
34) Isophorone	6.472	82	465214	79.3612	ng	85
35) 2-Nitrophenol	6.531	139	125654	84.7631	ng	89
36) 2,4-Dimethylphenol	6.558	107	238665	78.1591	ng	91
37) Benzoic Acid	6.643	105	262224	96.1516	ng	43
38) bis(2-Chloroethoxy)met...	6.632	93	287580	78.3918	ng	96
39) 2,4-Dichlorophenol	6.713	162	191590	82.9961	ng	90
40) 1,2,4-Trichlorobenzene	6.782	180	196817	77.1987	ng	98
41) Naphthalene	6.846	128	681268	73.6720	ng	99
42) 4-Chloroaniline	6.878	127	246895m	81.6091	ng	
43) Hexachlorobutadiene	6.932	225	100813	75.9145	ng	96
44) Caprolactam	7.161	113	99478	86.7615	ng	70
45) 4-Chloro-3-methylphenol	7.241	107	217767	84.5146	ng	81
46) 2-Methylnaphthalene	7.380	142	471177	78.6580	ng	99
47) 1-Methylnaphthalene	7.460	142	452833	79.2992	ng	92
48) Methylnaphthalenes (To...	7.380	142	923398m	157.8650	ng	
49) 1,1'-Biphenyl	7.754	154	558287	79.9332	ng	95
51) 1,2,4,5-Tetrachloroben...	7.509	216	209317	75.6195	ng	98
52) Hexachlorocyclopentadiene	7.503	237	124423	84.9052	ng	98
53) 2,4,6-Trichlorophenol	7.599	196	139292	78.9378	ng	100
54) 2,4,5-Trichlorophenol	7.631	196	133998	74.4165	ng	98
56) 2-Chloronaphthalene	7.776	162	452945	74.2915	ng	92
57) 1,4-Dimethylnaphthalene	8.059	156	345212	76.7273	ng	84
58) Dimethylnaphthalenes (...	8.059	156	345212	76.7273	ng	84
59) Diphenyl Ether	7.840	170	327818	75.3556	ng	77
60) 2-Nitroaniline	7.856	65	164140	80.4105	ng	44
61) Coumarin	8.043	146	190793	80.3458	ng	75
62) Acenaphthylene	8.134	152	704815	77.8438	ng	99
63) Dimethylphthalate	8.000	163	527609	79.1156	ng	99
64) 2,6-Dinitrotoluene	8.053	165	118565	82.3046	ng	71
65) Acenaphthene	8.289	153	453073	77.1941	ng	97

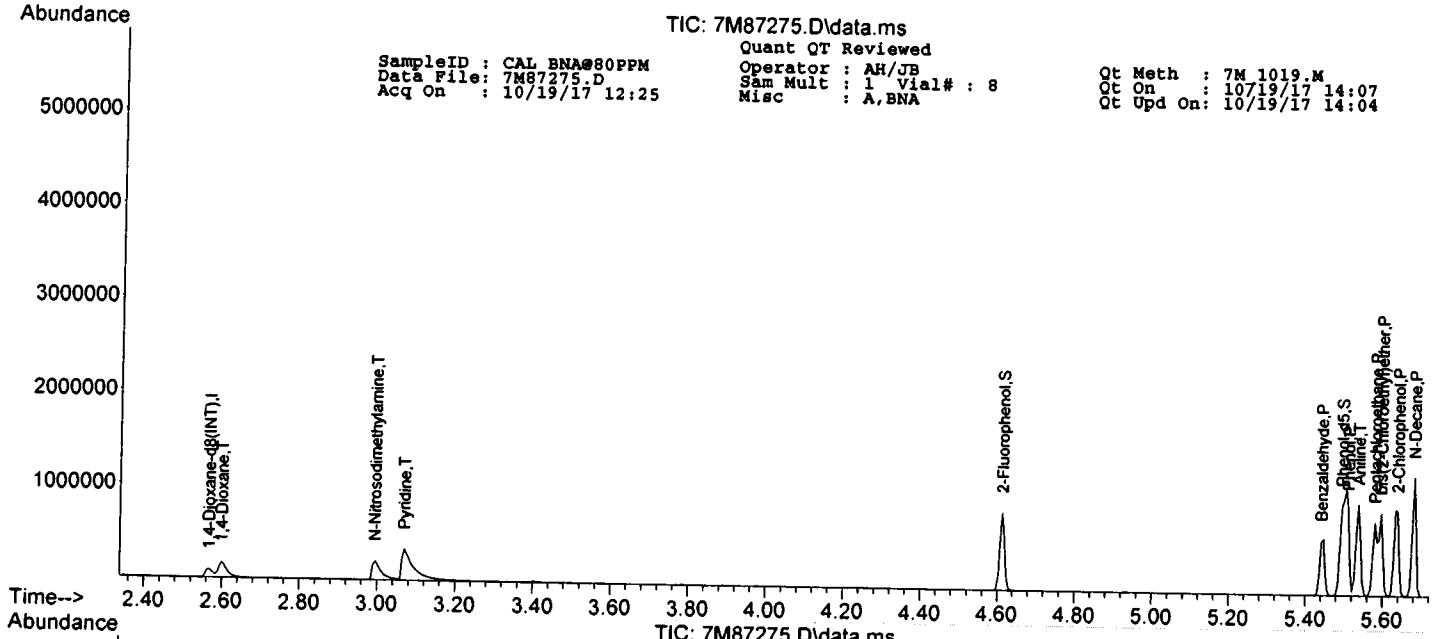
Quantitation Report (QT Reviewed)

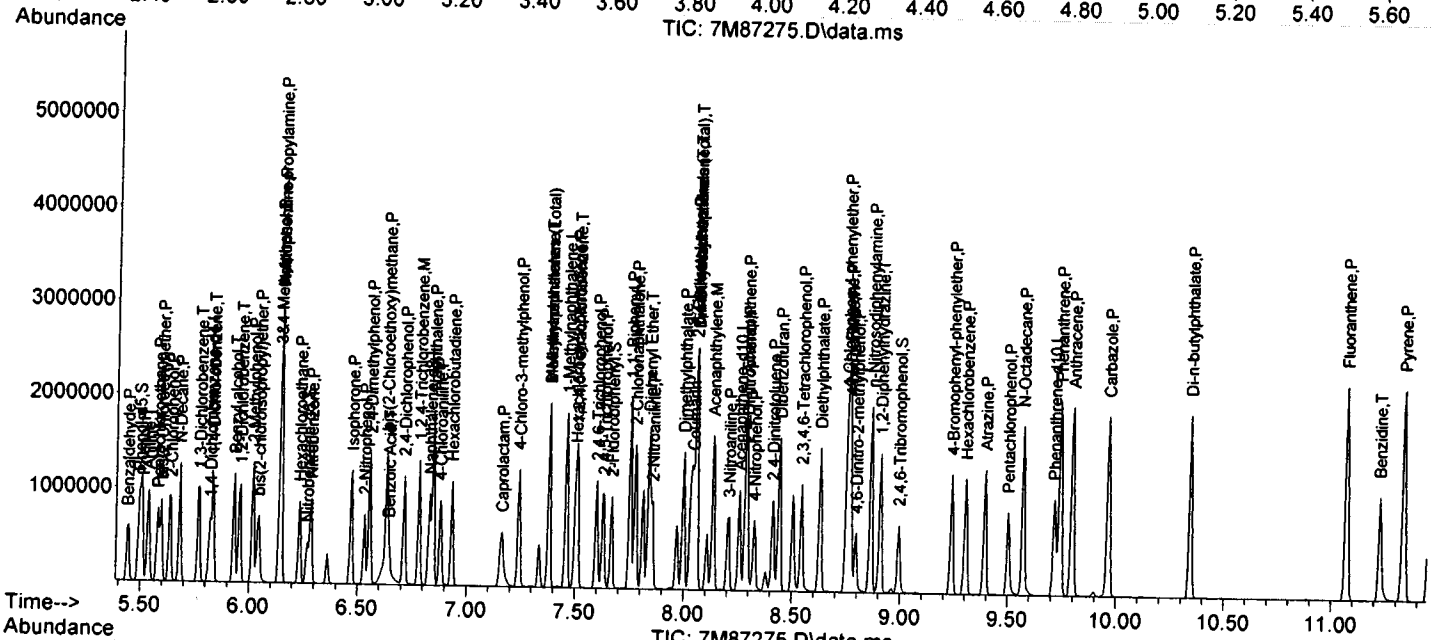
SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87275.D Sam Mult : 1 Vial# : 8 Qt On : 10/19/17 14:07
Acq On : 10/19/17 12:25 Misc : A,BNA Qt Upd On: 10/19/17 14:04

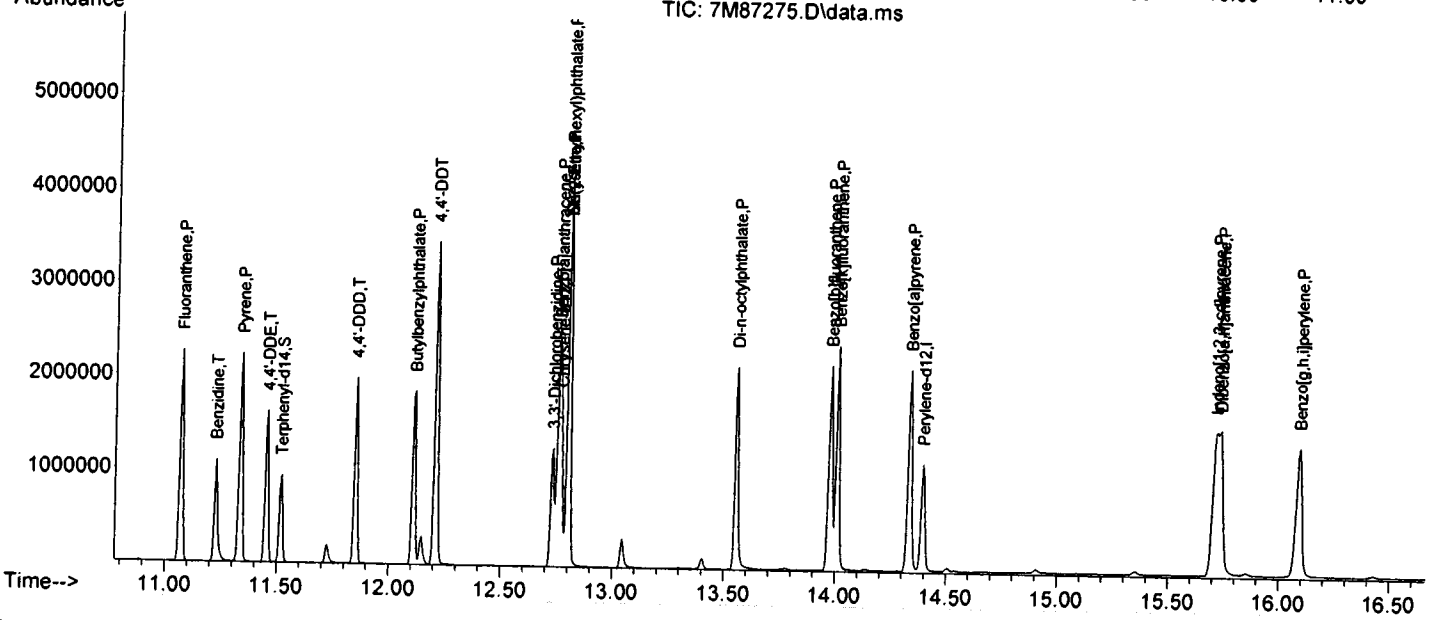
Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.208	138	137787	83.8360	ng	76
67)	2,4-Dinitrophenol	8.294	184	62774	91.7766	ng	58
68)	Dibenzofuran	8.443	168	657860	74.5755	ng	83
69)	2,4-Dinitrotoluene	8.411	165	174880	88.3618	ng	67
70)	4-Nitrophenol	8.326	65	115069	92.2582	ng	91
71)	2,3,4,6-Tetrachlorophenol	8.545	232	134213	85.5775	ng	83
72)	Fluorene	8.764	166	529001	78.1292	ng	99
73)	4-Chlorophenyl-phenyle...	8.753	204	248735	79.4620	ng	84
74)	Diethylphthalate	8.630	149	553430	79.9158	ng	98
75)	4-Nitroaniline	8.769	138	164053	87.1487	ng	74
76)	Atrazine	9.394	200	144616	84.5676	ng	96
78)	4,6-Dinitro-2-methylph...	8.796	198	95774	92.0773	ng	62
79)	n-Nitrosodiphenylamine	8.866	169	486057	77.0527	ng	98
81)	1,2-Diphenylhydrazine	8.908	77	558632	72.0434	ng	84
82)	4-Bromophenyl-phenylether	9.239	248	152614	78.5600	ng	82
83)	Hexachlorobenzene	9.304	284	156044	77.3633	ng	69
84)	N-Octadecane	9.571	57	318508	74.9433	ng	76
85)	Pentachlorophenol	9.501	266	102146	85.8311	ng	98
86)	Phenanthrene	9.742	178	830680	76.5885	ng	99
87)	Anthracene	9.800	178	851001	78.8928	ng	100
88)	Carbazole	9.966	167	835049	79.9226	ng	97
89)	Di-n-butylphthalate	10.345	149	1001219	82.6143	ng	98
90)	Fluoranthene	11.072	202	961914	81.3981	ng	96
92)	Pyrene	11.339	202	1001149	75.5938	ng	91
93)	Benzidine	11.227	184	443720	106.1529	ng	90
95)	4,4'-DDE	11.457	246	192061	73.9609	ng	95
96)	4,4'-DDD	11.852	235	387825	78.8461	ng	96
97)	Butylbenzylphthalate	12.114	149	491059	78.8222	ng	70
98)	4,4'-DDT	12.210	235	320845	83.7119	ng	98
99)	3,3'-Dichlorobenzidine	12.733	252	290880	84.4627	ng	95
100)	Benzo[a]anthracene	12.760	228	947535	76.7253	ng	100
101)	Chrysene	12.803	228	868645	77.7219	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.803	149	635911	79.2362	ng	93
104)	Di-n-octylphthalate	13.556	149	1181522	79.0573	ng	99
105)	Benzo[b]fluoranthene	13.978	252	979411m	77.3534	ng	
106)	Benzo[k]fluoranthene	14.010	252	950458	76.4121	ng	95
107)	Benzo[a]pyrene	14.336	252	958345	79.2956	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.714	276	1022262	83.1794	ng	88
109)	Dibenzo[a,h]anthracene	15.736	278	848743	83.6016	ng	93
110)	Benzo[g,h,i]perylene	16.094	276	869546	83.3820	ng	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87275.D\data.ms
SampleID : CAL BNA@80PPM
Data File: 7M87275.D
Acq On : 10/19/17 12:25
Quant QT Reviewed
Operator : AH/JB
Sam Mult : 1 Vial# : 8
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:07
Qt Upd On: 10/19/17 14:04
1,4-Dioxane-d8(INT),I
1,4-Dioxane,I
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Phenol-d5,S
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 7M87275.D\data.ms
Time-->


Abundance
TIC: 7M87275.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Perylene-d12,I
Benzo(g,h,i)perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87274.D Sam Mult : 1 Vial# : 7 Qt On : 10/19/17 14:06
Acq On : 10/19/17 12:02 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	45566	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	85420	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	353649	40.00	ng	0.00
50) Acenaphthene-d10	8.256	164	221886	40.00	ng	0.00
77) Phenanthrene-d10	9.720	188	417488	40.00	ng	0.00
91) Chrysene-d12	12.776	240	454475	40.00	ng	0.00
103) Perylene-d12	14.395	264	448390	40.00	ng	-0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	360910	131.64	ng	0.00
Spiked Amount 100.000			Recovery = 131.64%			
16) Phenol-d5	5.500	99	457338	133.18	ng	0.00
Spiked Amount 100.000			Recovery = 133.18%			
32) Nitrobenzene-d5	6.269	128	87078	60.59	ng	0.00
Spiked Amount 50.000			Recovery = 121.18%			
55) 2-Fluorobiphenyl	7.669	172	396102	57.26	ng	0.00
Spiked Amount 50.000			Recovery = 114.52%			
80) 2,4,6-Tribromophenol	8.999	330	113521	135.22	ng	0.00
Spiked Amount 100.000			Recovery = 135.22%			
94) Terphenyl-d14	11.521	244	437304	60.38	ng	0.00
Spiked Amount 50.000			Recovery = 120.76%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	145700	110.8049	ng	99
9) Pyridine	3.064	79	411089	126.6595	ng	69
10) N-Nitrosodimethylamine	2.994	74	242883	130.3345	ng	72
12) Benzaldehyde	5.446	77	174698	131.0977	ng	73
13) Aniline	5.537	93	525483	129.8837	ng	7
14) Pentachloroethane	5.580	117	111751	120.4248	ng	85
15) bis(2-Chloroethyl)ether	5.596	93	355345	117.7545	ng	80
17) Phenol	5.511	94	521688	128.8227	ng	82
18) 2-Chlorophenol	5.639	128	372339	129.3175	ng	79
19) N-Decane	5.681	57	308644	114.2389	ng	93
20) 1,3-Dichlorobenzene	5.772	146	354508	121.7023	ng	98
22) 1,4-Dichlorobenzene	5.836	146	358536	116.3170	ng	97
23) 1,2-Dichlorobenzene	5.959	146	340938	116.7985	ng	97
24) Benzyl alcohol	5.933	108	253555	128.5716	ng	71
25) bis(2-chloroisopropyl)...	6.045	45	430148	117.3178	ng	99
26) 2-Methylphenol	6.018	108	342862	121.8705	ng	98
27) Acetophenone	6.152	105	490432	115.2716	ng	62
28) Hexachloroethane	6.237	117	142538	118.0545	ng	87
29) N-Nitroso-di-n-propyla...	6.152	70	232160	113.4573	ng	84
30) 3&4-Methylphenol	6.146	108	331199	120.2380	ng	100
33) Nitrobenzene	6.285	77	375196	118.0261	ng	80
34) Isophorone	6.472	82	714420	119.7133	ng	88
35) 2-Nitrophenol	6.536	139	199733	132.3470	ng	82
36) 2,4-Dimethylphenol	6.558	107	365913	117.7069	ng	93
37) Benzoic Acid	6.664	105	440103	158.5156	ng	42
38) bis(2-Chloroethoxy)met...	6.638	93	437303	117.0922	ng	96
39) 2,4-Dichlorophenol	6.718	162	295589	125.7787	ng	87
40) 1,2,4-Trichlorobenzene	6.782	180	301899	116.3169	ng	97
41) Naphthalene	6.846	128	1030595	109.4727	ng	99
42) 4-Chloroaniline	6.883	127	338973m	110.0589	ng	
43) Hexachlorobutadiene	6.937	225	155914	115.3259	ng	97
44) Caprolactam	7.177	113	154709	132.5406	ng	66
45) 4-Chloro-3-methylphenol	7.247	107	336829	128.4053	ng	77
46) 2-Methylnaphthalene	7.380	142	713926	117.0700	ng	99
47) 1-Methylnaphthalene	7.460	142	690619	118.7963	ng	92
48) Methylnaphthalenes (To...	7.380	142	1404821m	235.9128	ng	
49) 1,1'-Biphenyl	7.754	154	850436	119.6038	ng	95
51) 1,2,4,5-Tetrachloroben...	7.514	216	321363	113.3360	ng	98
52) Hexachlorocyclopentadiene	7.503	237	196885	131.1562	ng	99
53) 2,4,6-Trichlorophenol	7.599	196	234573	129.7715	ng	100
54) 2,4,5-Trichlorophenol	7.631	196	223721	121.2887	ng	99
56) 2-Chloronaphthalene	7.781	162	674726	108.0348	ng	92
57) 1,4-Dimethylnaphthalene	8.059	156	511917	111.0724	ng	88
58) Dimethylnaphthalenes (...	8.059	156	511917	111.0724	ng	88
59) Diphenyl Ether	7.840	170	502909	112.8535	ng	80
60) 2-Nitroaniline	7.856	65	255556	122.2158	ng	53
61) Coumarin	8.048	146	287470	118.1777	ng	75
62) Acenaphthylene	8.139	152	1077323	116.1548	ng	99
63) Dimethylphthalate	8.005	163	799594	117.0474	ng	98
64) 2,6-Dinitrotoluene	8.059	165	176062	119.3097	ng	69
65) Acenaphthene	8.289	153	686609	114.2004	ng	98

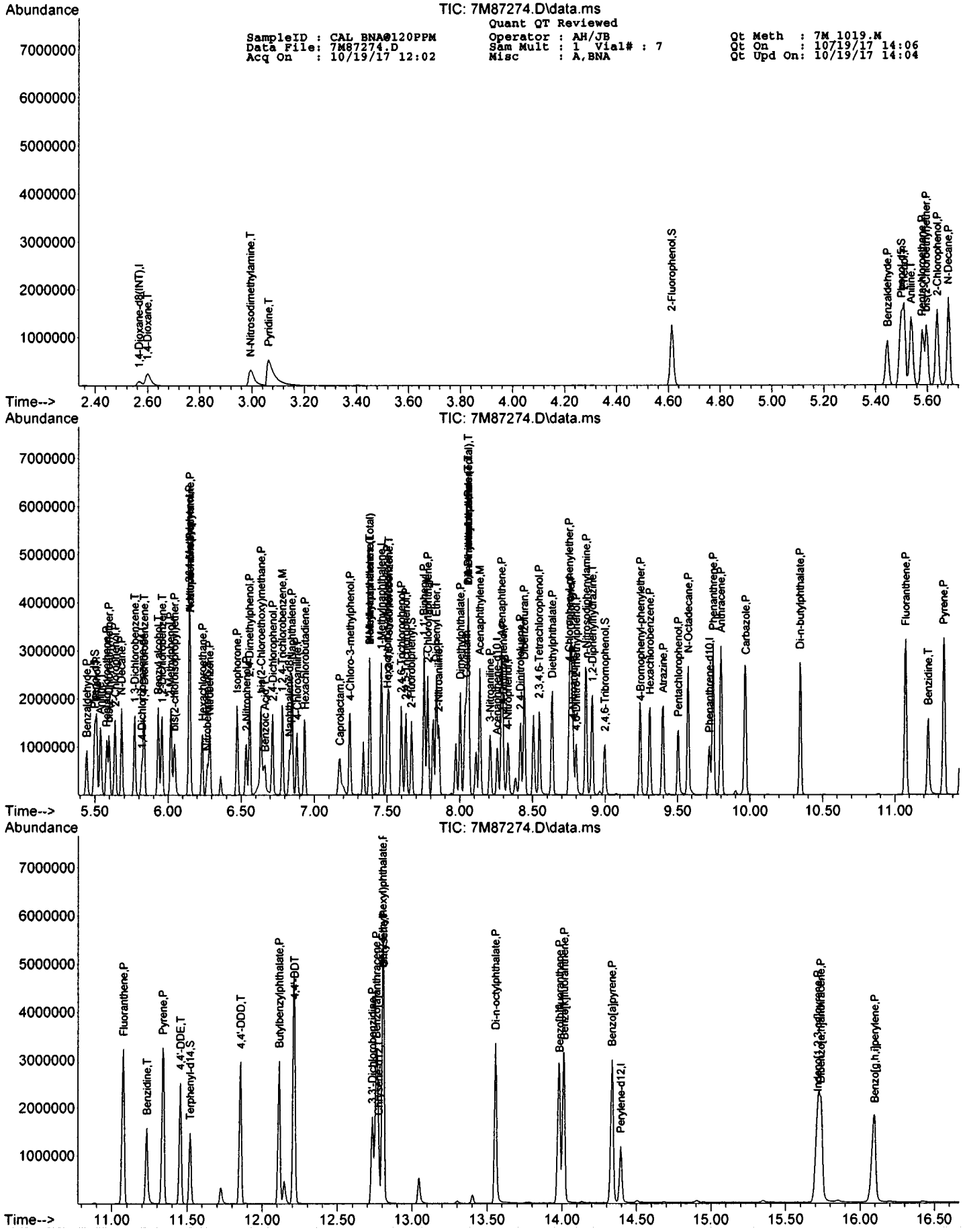
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87274.D Sam Mult : 1 Vial# : 7 Qt On : 10/19/17 14:06
Acq On : 10/19/17 12:02 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.208	138	203774	121.0357	ng	81
67)	2,4-Dinitrophenol	8.299	184	111967	159.8030	ng	41
68)	Dibenzofuran	8.443	168	1002752	110.9683	ng	85
69)	2,4-Dinitrotoluene	8.417	165	272589	134.4545	ng	65
70)	4-Nitrophenol	8.331	65	176297	137.9857	ng	92
71)	2,3,4,6-Tetrachlorophenol	8.545	232	210029	130.7334	ng	84
72)	Fluorene	8.764	166	808170	116.5205	ng	97
73)	4-Chlorophenyl-phenyle...	8.753	204	383869	119.7148	ng	85
74)	Diethylphthalate	8.636	149	856455	120.7305	ng	97
75)	4-Nitroaniline	8.780	138	255048	132.2638	ng	77
76)	Atrazine	9.400	200	225576	128.7724	ng	95
78)	4,6-Dinitro-2-methylph...	8.801	198	155302	145.8901	ng	64
79)	n-Nitrosodiphenylamine	8.871	169	742562	115.0210	ng	98
81)	1,2-Diphenylhydrazine	8.914	77	845947	106.5996	ng	79
82)	4-Bromophenyl-phenylether	9.245	248	237716	119.5665	ng	79
83)	Hexachlorobenzene	9.309	284	244250	118.3223	ng	64
84)	N-Octadecane	9.576	57	474370	109.0621	ng	73
85)	Pentachlorophenol	9.507	266	166943	137.0678	ng	98
86)	Phenanthrene	9.747	178	1246614	112.3067	ng	100
87)	Anthracene	9.800	178	1294290	117.2419	ng	100
88)	Carbazole	9.971	167	1266120	118.4067	ng	97
89)	Di-n-butylphthalate	10.345	149	1531864	123.5066	ng	98
90)	Fluoranthene	11.077	202	1464359	121.0791	ng	93
92)	Pyrene	11.339	202	1504055	114.7194	ng	93
93)	Benzidine	11.232	184	674446	162.9881	ng	87
95)	4,4'-DDE	11.456	246	300671	116.9608	ng	94
96)	4,4'-DDD	11.857	235	587187	120.5888	ng	96
97)	Butylbenzylphthalate	12.114	149	750515	121.6915	ng	71
98)	4,4'-DDT	12.215	235	478929	126.2260	ng	99
99)	3,3'-Dichlorobenzidine	12.733	252	422950	124.0584	ng	96
100)	Benzo[a]anthracene	12.760	228	1420938	116.2263	ng	100
101)	Chrysene	12.808	228	1249962	112.9754	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.803	149	922899	116.1628	ng	93
104)	Di-n-octylphthalate	13.556	149	1805398	123.7708	ng	100
105)	Benzo[b]fluoranthene	13.983	252	1417029m	114.6670	ng	
106)	Benzo[k]fluoranthene	14.015	252	1424967	117.3761	ng	93
107)	Benzo[a]pyrene	14.336	252	1413537	119.8339	ng	94
108)	Indeno[1,2,3-cd]pyrene	15.714	276	1481843	123.5381	ng	89
109)	Dibenzo[a,h]anthracene	15.736	278	1222933	123.4203	ng	92
110)	Benzo[g,h,i]perylene	16.099	276	1248888	122.7012	ng	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87274.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@120PPM
Data File: 7M87274.D
Acq On : 10/19/17 12:02
Operator : AH/JB
Sam Mult : 1 Vial# : 7
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:06
Qt Upd On: 10/19/17 14:04
Abundance
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87273.D Sam Mult : 1 Vial# : 6 Qt On : 10/19/17 14:05
Acq On : 10/19/17 11:38 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	51053	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	91334	40.00	ng	0.00
31) Naphthalene-d8	6.841	136	369177	40.00	ng	0.00
50) Acenaphthene-d10	8.272	164	223992	40.00	ng	0.01
77) Phenanthrene-d10	9.726	188	417905	40.00	ng	0.00
91) Chrysene-d12	12.776	240	432828	40.00	ng	0.00
103) Perylene-d12	14.405	264	412194	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	488671	159.09	ng	0.00
Spiked Amount 100.000			Recovery = 159.09%			
16) Phenol-d5	5.500	99	598582	155.58	ng	0.00
Spiked Amount 100.000			Recovery = 155.58%			
32) Nitrobenzene-d5	6.274	128	118383	78.90	ng	0.00
Spiked Amount 50.000			Recovery = 157.80%			
55) 2-Fluorobiphenyl	7.679	172	522323	74.79	ng	0.00
Spiked Amount 50.000			Recovery = 149.58%			
80) 2,4,6-Tribromophenol	9.010	330	147306	175.28	ng	0.01
Spiked Amount 100.000			Recovery = 175.28%			
94) Terphenyl-d14	11.526	244	548709	79.55	ng	0.00
Spiked Amount 50.000			Recovery = 159.10%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	206646	140.2639	ng	98
9) Pyridine	3.058	79	563472	154.9509	ng	69
10) N-Nitrosodimethylamine	2.994	74	333379	159.6689	ng	71
12) Benzaldehyde	5.446	77	217379	145.5943	ng	71
13) Aniline	5.543	93	704896	155.5037	ng	14
14) Pentachloroethane	5.580	117	153462	147.5996	ng	86
15) bis(2-Chloroethyl)ether	5.601	93	467588	138.2963	ng	76
17) Phenol	5.516	94	685165	151.0067	ng	79
18) 2-Chlorophenol	5.639	128	494483	153.2815	ng	79
19) N-Decane	5.681	57	411627	135.9814	ng	90
20) 1,3-Dichlorobenzene	5.772	146	471784	144.5558	ng	98
22) 1,4-Dichlorobenzene	5.836	146	483563	146.7204	ng	97
23) 1,2-Dichlorobenzene	5.959	146	461389	147.8278	ng	96
24) Benzyl alcohol	5.933	108	330450	156.7132	ng	73
25) bis(2-chloroisopropyl)...	6.045	45	555681	141.7420	ng	99
26) 2-Methylphenol	6.023	108	448273	149.0215	ng	97
27) Acetophenone	6.152	105	618695	136.0026	ng	71
28) Hexachloroethane	6.237	117	193455	149.8508	ng	84
29) N-Nitroso-di-n-propyla...	6.152	70	294733	134.7103	ng	85
30) 3&4-Methylphenol	6.146	108	413435	140.3741	ng	93
33) Nitrobenzene	6.290	77	491182	148.0131	ng	74
34) Isophorone	6.477	82	934496	150.0044	ng	86
35) 2-Nitrophenol	6.536	139	264114	167.6461	ng	87
36) 2,4-Dimethylphenol	6.563	107	477770	147.2248	ng	93
37) Benzoic Acid	6.680	105	595456	205.4495	ng	45
38) bis(2-Chloroethoxy)met...	6.643	93	567127	145.4667	ng	95
39) 2,4-Dichlorophenol	6.723	162	386885	157.7024	ng	89
40) 1,2,4-Trichlorobenzene	6.793	180	396622	146.3847	ng	97
41) Naphthalene	6.857	128	1325309m	134.8568	ng	
42) 4-Chloroaniline	6.889	127	378373	117.6842	ng	94
43) Hexachlorobutadiene	6.942	225	206959	146.6439	ng	97
44) Caprolactam	7.193	113	213261	175.0180	ng	67
45) 4-Chloro-3-methylphenol	7.257	107	431276	157.4949	ng	78
46) 2-Methylnaphthalene	7.391	142	920019	144.5197	ng	99
47) 1-Methylnaphthalene	7.471	142	876819	144.4815	ng	90
48) Methylnaphthalenes (To...	7.391	142	1796066m	288.9286	ng	
49) 1,1'-Biphenyl	7.770	154	1087328	146.4879	ng	94
51) 1,2,4,5-Tetrachloroben...	7.525	216	411576	143.7870	ng	98
52) Hexachlorocyclopentadiene	7.514	237	261698	172.6927	ng	98
53) 2,4,6-Trichlorophenol	7.610	196	297785	163.1930	ng	98
54) 2,4,5-Trichlorophenol	7.642	196	301338	161.8322	ng	99
56) 2-Chloronaphthalene	7.792	162	858656	136.1924	ng	93
57) 1,4-Dimethylnaphthalene	8.075	156	639788	137.5118	ng	87
58) Dimethylnaphthalenes (...	8.075	156	639788	137.5118	ng	87
59) Diphenyl Ether	7.856	170	646007	143.6019	ng	75
60) 2-Nitroaniline	7.872	65	320210	151.6958	ng	44
61) Coumarin	8.064	146	356294	145.0939	ng	75
62) Acenaphthylene	8.155	152	1370221	146.3455	ng	99
63) Dimethylphthalate	8.021	163	1025604	148.7200	ng	98
64) 2,6-Dinitrotoluene	8.075	165	214011	143.6626	ng	67
65) Acenaphthene	8.304	153	876655	144.4390	ng	98

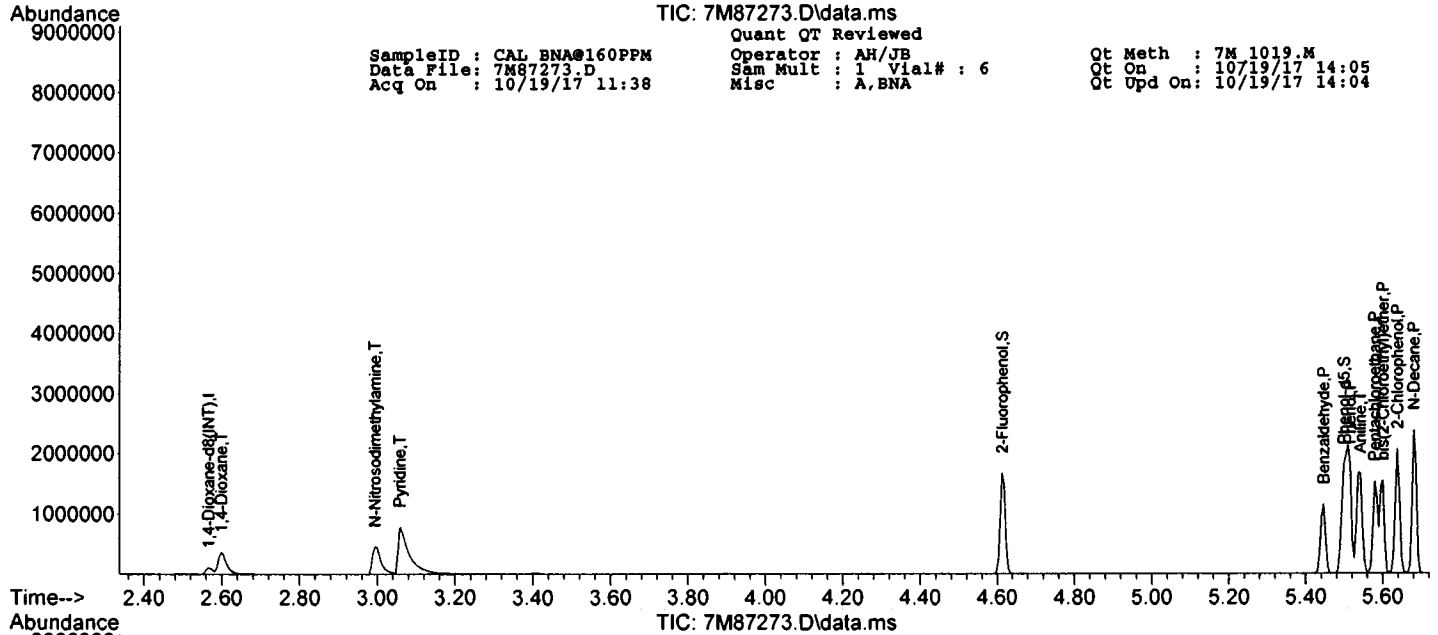
Quantitation Report (QT Reviewed)

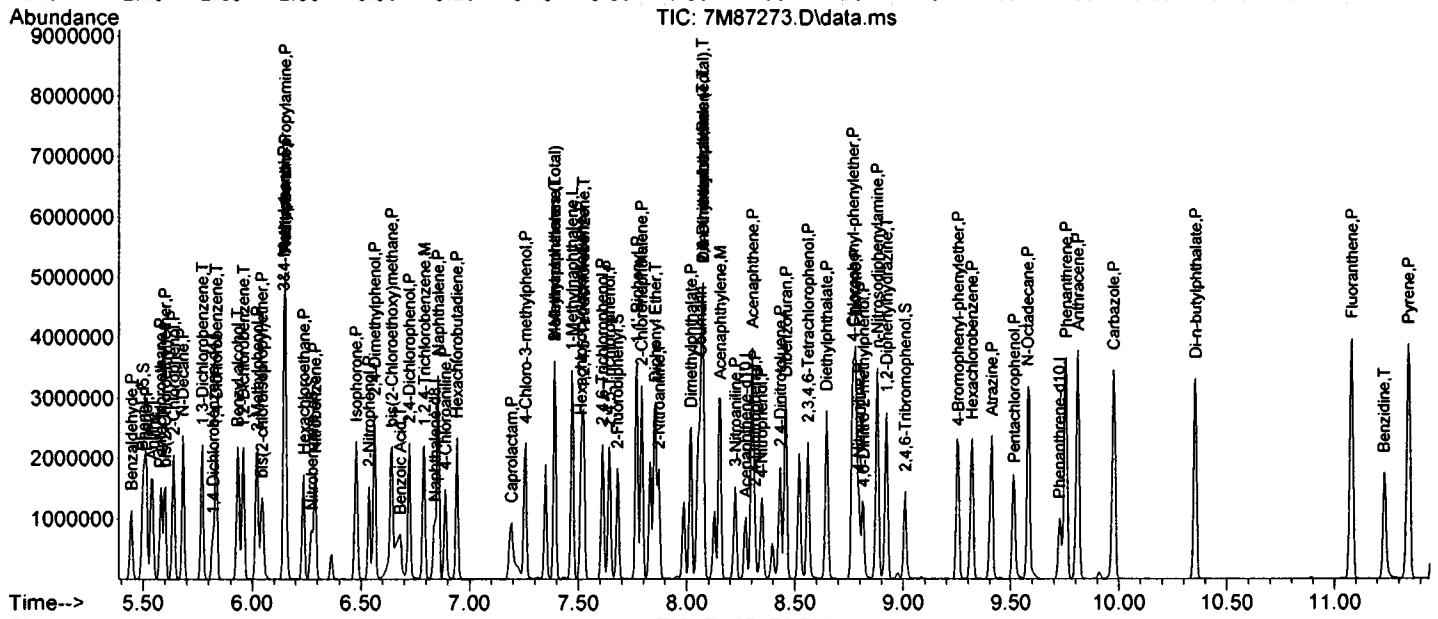
SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87273.D Sam Mult : 1 Vial# : 6 Qt On : 10/19/17 14:05
Acq On : 10/19/17 11:38 Misc : A,BNA Qt Upd On: 10/19/17 14:04

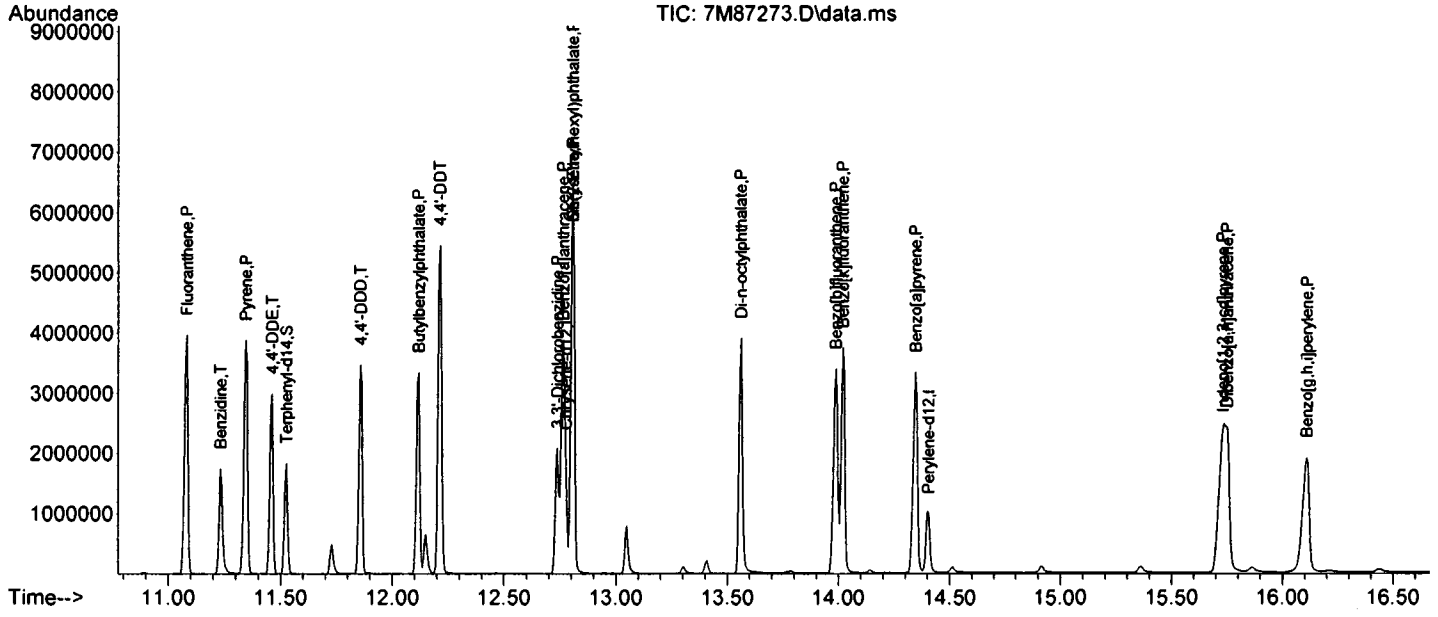
Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.224	138	248769	146.3722	ng	79
67)	2,4-Dinitrophenol	8.315	184	146839	207.6030	ng	35
68)	Dibenzofuran	8.459	168	1264960	138.6690	ng	85
69)	2,4-Dinitrotoluene	8.433	165	346610	169.3580	ng	61
70)	4-Nitrophenol	8.347	65	218687	169.5545	ng	88
71)	2,3,4,6-Tetrachlorophenol	8.561	232	270849	167.0060	ng	84
72)	Fluorene	8.780	166	1006896	143.8075	ng	98
73)	4-Chlorophenyl-phenyle...	8.769	204	477993	147.6672	ng	83
74)	Diethylphthalate	8.646	149	1080602	150.8953	ng	98
75)	4-Nitroaniline	8.796	138	321092	164.9476	ng	75
76)	Atrazine	9.410	200	289875	163.9224	ng	96
78)	4,6-Dinitro-2-methylph...	8.817	198	203203	190.6976	ng	66
79)	n-Nitrosodiphenylamine	8.881	169	936423	144.9049	ng	98
81)	1,2-Diphenylhydrazine	8.924	77	1173011	147.6661	ng	80
82)	4-Bromophenyl-phenylether	9.255	248	305194	153.3534	ng	79
83)	Hexachlorobenzene	9.320	284	312042	151.0120	ng	67
84)	N-Octadecane	9.581	57	589569	135.4121	ng	74
85)	Pentachlorophenol	9.517	266	218015	178.8217	ng	98
86)	Phenanthrene	9.758	178	1563825	140.7435	ng	99
87)	Anthracene	9.811	178	1596941	144.5128	ng	99
88)	Carbazole	9.977	167	1579349	147.5523	ng	98
89)	Di-n-butylphthalate	10.356	149	1916017	154.3248	ng	97
90)	Fluoranthene	11.082	202	1814078	149.8457	ng	93
92)	Pyrene	11.344	202	1839454	147.3183	ng	92
93)	Benzidine	11.232	184	741938	188.2656	ng	90
95)	4,4'-DDE	11.462	246	372337	152.0827	ng	95
96)	4,4'-DDD	11.857	235	726270	156.6114	ng	96
97)	Butylbenzylphthalate	12.119	149	927167	157.8532	ng	70
98)	4,4'-DDT	12.215	235	587069	162.4657	ng	99
99)	3,3'-Dichlorobenzidine	12.739	252	475485	146.4430	ng	96
100)	Benzo[a]anthracene	12.765	228	1716162	147.3948	ng	100
101)	Chrysene	12.808	228	1471583	139.6582	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.808	149	1117511	147.6928	ng	91
104)	Di-n-octylphthalate	13.561	149	2207691	164.6410	ng	100
105)	Benzo[b]fluoranthene	13.989	252	1734624m	152.6931	ng	
106)	Benzo[k]fluoranthene	14.021	252	1625609	145.6616	ng	95
107)	Benzo[a]pyrene	14.347	252	1651450	152.2973	ng	94
108)	Indeno[1,2,3-cd]pyrene	15.730	276	1670354	151.4822	ng	88
109)	Dibenzo[a,h]anthracene	15.752	278	1393428	152.9758	ng	91
110)	Benzo[g,h,i]perylene	16.110	276	1398093	149.4223	ng	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87273.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@160PPM
Data File: 7M87273.D
Acq On : 10/19/17 11:38
Operator : AH/JB
Sam Mult : 1 Vial# : 6
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:05
Qt Upd On: 10/19/17 14:04
Abundance
Time-->


TIC: 7M87273.D\data.ms
Abundance
Time-->


TIC: 7M87273.D\data.ms
Abundance
Time-->

Quantitation Report (QT Reviewed)

Sample ID : CAL BNA@196PPM
Data File: 7M87272.D
Acq On : 10/19/17 11:15

Operator : AH/JB
Sam Mult : 1 Vial# : 5
Misc : A,BNA

Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:04
Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.562	96	42028	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	75799	40.00	ng	0.00
31) Naphthalene-d8	6.835	136	307691	40.00	ng	0.00
50) Acenaphthene-d10	8.267	164	194093	40.00	ng	0.00
77) Phenanthrene-d10	9.726	188	366659	40.00	ng	0.00
91) Chrysene-d12	12.781	240	387188	40.00	ng	0.01
103) Perylene-d12	14.395	264	373478	40.00	ng	-0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	536023	211.97	ng	0.00
Spiked Amount 100.000			Recovery = 211.97%			
16) Phenol-d5	5.500	99	664087	209.67	ng	0.00
Spiked Amount 100.000			Recovery = 209.67%			
32) Nitrobenzene-d5	6.274	128	128974	103.14	ng	0.00
Spiked Amount 50.000			Recovery = 206.28%			
55) 2-Fluorobiphenyl	7.674	172	581052	96.02	ng	0.00
Spiked Amount 50.000			Recovery = 192.04%			
80) 2,4,6-Tribromophenol	9.004	330	168703	228.80	ng	0.00
Spiked Amount 100.000			Recovery = 228.80%			
94) Terphenyl-d14	11.526	244	658508	106.72	ng	0.00
Spiked Amount 50.000			Recovery = 213.44%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	227103	187.2511	ng	99
9) Pyridine	3.053	79	610454	203.9187	ng	69
10) N-Nitrosodimethylamine	2.994	74	369885	215.1945	ng	71
12) Benzaldehyde	5.446	77	227818	185.3520	ng	72
13) Aniline	5.543	93	760824	203.8837	ng	13
14) Pentachloroethane	5.580	117	165877	193.7996	ng	87
15) bis(2-Chloroethyl)ether	5.601	93	511863	183.9007	ng	77
17) Phenol	5.516	94	753243	201.6595	ng	81
18) 2-Chlorophenol	5.639	128	540444	203.5034	ng	80
19) N-Decane	5.681	57	432812	173.6831	ng	90
20) 1,3-Dichlorobenzene	5.772	146	511067	190.2185	ng	99
22) 1,4-Dichlorobenzene	5.836	146	516159	188.7078	ng	97
23) 1,2-Dichlorobenzene	5.959	146	491854	189.8865	ng	97
24) Benzyl alcohol	5.933	108	358764	205.0113	ng	74
25) bis(2-chloroisopropyl)...	6.045	45	608515	187.0309	ng	99
26) 2-Methylphenol	6.023	108	487920	195.4448	ng	99
27) Acetophenone	6.152	105	656790	173.9667	ng	73
28) Hexachloroethane	6.237	117	207757	193.9116	ng	84
29) N-Nitroso-di-n-propyla...	6.152	70	321683	177.1614	ng	83
30) 3&4-Methylphenol	6.146	108	437329	178.9193	ng	95
33) Nitrobenzene	6.290	77	537928	194.4920	ng	76
34) Isophorone	6.477	82	1036856	199.6940	ng	87
35) 2-Nitrophenol	6.536	139	286068	217.8669	ng	87
36) 2,4-Dimethylphenol	6.563	107	525153	194.1635	ng	95
37) Benzoic Acid	6.686	105	647233	267.9390	ng	43
38) bis(2-Chloroethoxy)met...	6.638	93	620351	190.9152	ng	97
39) 2,4-Dichlorophenol	6.723	162	420804	205.8051	ng	88
40) 1,2,4-Trichlorobenzene	6.787	180	432702	191.6142	ng	97
41) Naphthalene	6.851	128	1450855m	177.1331	ng	
42) 4-Chloroaniline	6.883	127	382969m	142.9162	ng	
43) Hexachlorobutadiene	6.937	225	223559	190.0604	ng	96
44) Caprolactam	7.193	113	245056	241.2995	ng	65
45) 4-Chloro-3-methylphenol	7.252	107	484270	212.1870	ng	82
46) 2-Methylnaphthalene	7.386	142	1002801	189.0014	ng	97
47) 1-Methylnaphthalene	7.466	142	963649	190.5202	ng	92
48) Methylnaphthalenes (To...	7.386	142	1965595m	379.3867	ng	
49) 1,1'-Biphenyl	7.760	154	1209279	195.4733	ng	94
51) 1,2,4,5-Tetrachloroben...	7.519	216	451327	181.9631	ng	99
52) Hexachlorocyclopentadiene	7.508	237	282709	215.2960	ng	99
53) 2,4,6-Trichlorophenol	7.605	196	328942	208.0370	ng	97
54) 2,4,5-Trichlorophenol	7.637	196	336804	208.7425	ng	97
56) 2-Chloronaphthalene	7.786	162	953190	174.4760	ng	93
57) 1,4-Dimethylnaphthalene	8.069	156	695603	172.5393	ng	88
58) Dimethylnaphthalenes (...	8.069	156	695603	172.5393	ng	88
59) Diphenyl Ether	7.845	170	718160	184.2327	ng	80
60) 2-Nitroaniline	7.866	65	363798	198.8939	ng	47
61) Coumarin	8.059	146	394349	185.3292	ng	72
62) Acenaphthylene	8.144	152	1540638	189.8943	ng	99
63) Dimethylphthalate	8.016	163	1153229	192.9869	ng	99
64) 2,6-Dinitrotoluene	8.069	165	236605	183.2965	ng	69
65) Acenaphthene	8.299	153	979110	186.1700	ng	99

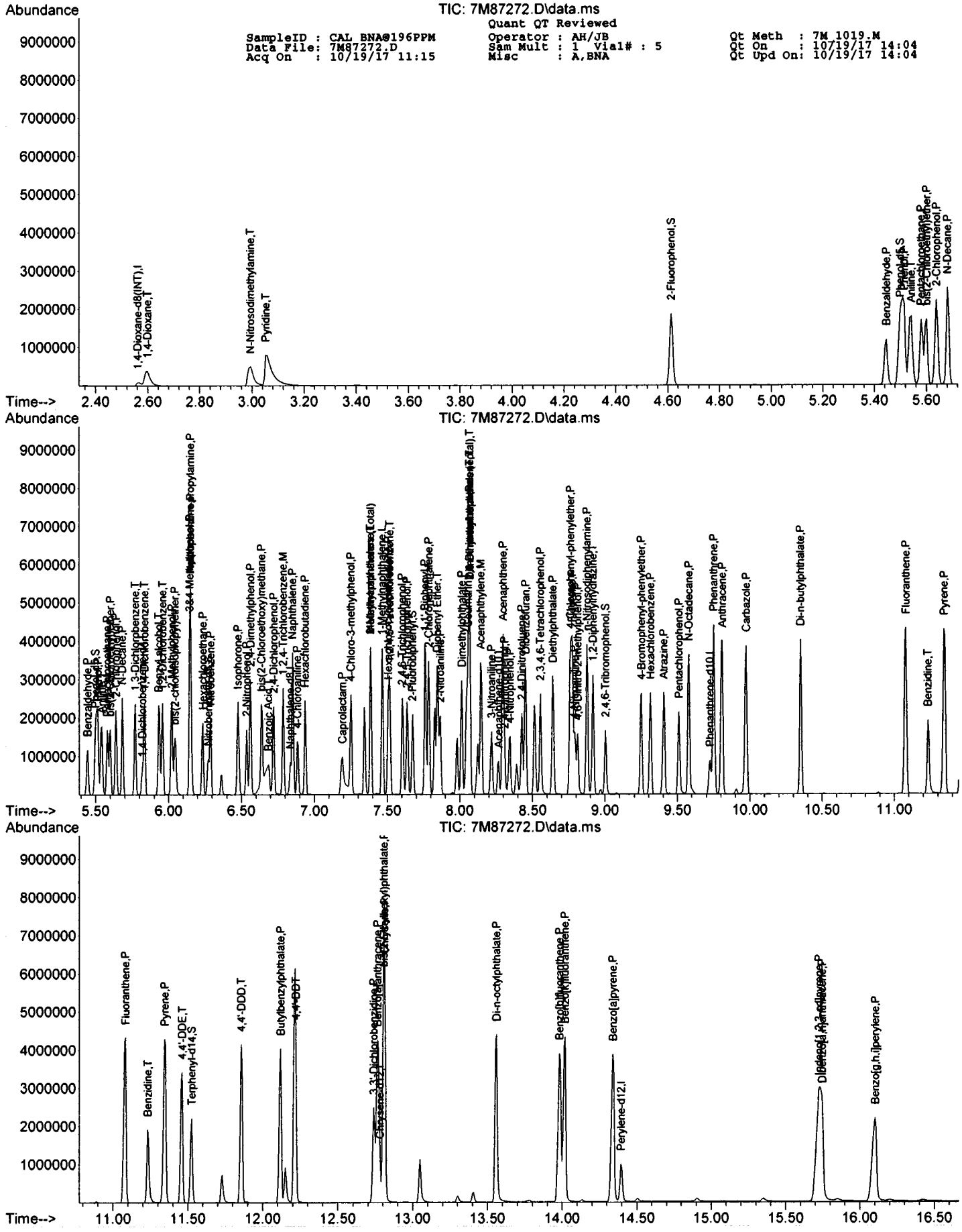
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87272.D Sam Mult : 1 Vial# : 5 Qt On : 10/19/17 14:04
Acq On : 10/19/17 11:15 Misc : A,BNA Qt Upd On: 10/19/17 14:04

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) 3-Nitroaniline	8.219	138	277241	188.2532	ng	80
67) 2,4-Dinitrophenol	8.310	184	169016	275.7672	ng	36
68) Dibenzofuran	8.454	168	1431302	181.0742	ng	85
69) 2,4-Dinitrotoluene	8.427	165	397421	224.0980	ng	65
70) 4-Nitrophenol	8.347	65	259654	232.3294	ng	82
71) 2,3,4,6-Tetrachlorophenol	8.556	232	307562	218.8568	ng	85
72) Fluorene	8.775	166	1143523	188.4797	ng	98
73) 4-Chlorophenyl-phenyle...	8.764	204	542515	193.4179	ng	82
74) Diethylphthalate	8.641	149	1247863	201.0941	ng	98
75) 4-Nitroaniline	8.791	138	377414	223.7470	ng	76
76) Atrazine	9.405	200	336941	219.8892	ng	97
78) 4,6-Dinitro-2-methylph...	8.812	198	237484	254.0181	ng	60
79) n-Nitrosodiphenylamine	8.876	169	1063848	187.6315	ng	99
81) 1,2-Diphenylhydrazine	8.919	77	1220698	175.1468	ng	81
82) 4-Bromophenyl-phenylether	9.250	248	349188	199.9825	ng	81
83) Hexachlorobenzene	9.314	284	355897	196.3080	ng	66
84) N-Octadecane	9.581	57	653308	171.0236	ng	68
85) Pentachlorophenol	9.512	266	250728	234.3969	ng	98
86) Phenanthrene	9.752	178	1804577	185.1104	ng	99
87) Anthracene	9.811	178	1857931	191.6295	ng	99
88) Carbazole	9.977	167	1821681	193.9794	ng	98
89) Di-n-butylphthalate	10.351	149	2212103	203.0752	ng	98
90) Fluoranthene	11.082	202	2108073	198.4674	ng	91
92) Pyrene	11.344	202	2164456	193.7805	ng	91
93) Benzidine	11.232	184	805080	228.3684	ng	90
95) 4,4'-DDE	11.462	246	440516	201.1401	ng	95
96) 4,4'-DDD	11.857	235	848743	204.5949	ng	95
97) Butylbenzylphthalate	12.119	149	1100723	209.4917	ng	72
98) 4,4'-DDT	12.220	235	682135	211.0262	ng	99
99) 3,3'-Dichlorobenzidine	12.739	252	540911	186.2306	ng	97
100) Benzo[a]anthracene	12.765	228	2048438	196.6710	ng	99
101) Chrysene	12.813	228	1741024	184.7055	ng	99
102) bis(2-Ethylhexyl)phtha...	12.808	149	1308113	193.2620	ng	93
104) Di-n-octylphthalate	13.561	149	2614274	215.1728	ng	100
105) Benzo[b]fluoranthene	13.983	252	2069924	201.0968	ng	95
106) Benzo[k]fluoranthene	14.021	252	1962910m	194.1181	ng	
107) Benzo[a]pyrene	14.341	252	1998042	203.3612	ng	94
108) Indeno[1,2,3-cd]pyrene	15.725	276	1990652	199.2439	ng	87
109) Dibenzo[a,h]anthracene	15.746	278	1663343	201.5379	ng	90
110) Benzo[g,h,i]perylene	16.104	276	1655304	195.2513	ng	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87272.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@196PPM
Data File: 7M87272.D
Acq On : 10/19/17 11:15
Operator : AH/JB
Sam Mult : 1 Vial# : 5
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:04
Qt Upd On: 10/19/17 14:04
Abundance
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87277.D Sam Mult : 1 Vial# : 10 Qt On : 10/19/17 14:22
Acq On : 10/19/17 13:11 Misc : A,BNA Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	46605	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.820	152	87656	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	355993	40.00	ng	0.00
50) Acenaphthene-d10	8.262	164	215585	40.00	ng	0.00
77) Phenanthrene-d10	9.720	188	390883	40.00	ng	0.00
91) Chrysene-d12	12.765	240	429139	40.00	ng	0.00
103) Perylene-d12	14.395	264	402635	40.00	ng	-0.01
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						Qvalue
8) 1,4-Dioxane	2.620	88	962m	0.7153	ng	
9) Pyridine	0.000		0	N.D. d		
10) N-Nitrosodimethylamine	0.000		0	N.D.		
12) Benzaldehyde	0.000		0	N.D. d		
13) Aniline	5.537	93	1712m	0.4137	ng	
14) Pentachloroethane	0.000		0	N.D. d		
15) bis(2-Chloroethyl)ether	5.596	93	2050	0.6896	ng	80
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	6.018	108	1480	0.5126	ng	84
27) Acetophenone	0.000		0	N.D. d		
28) Hexachloroethane	0.000		0	N.D. d		
29) N-Nitroso-di-n-propyla...	6.141	70	1270	0.6048	ng	84
30) 3&4-Methylphenol	6.135	108	1473	0.5211	ng	96
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	6.558	107	1430	0.4570	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	6.712	162	952	0.4024	ng	79
40) 1,2,4-Trichlorobenzene	0.000		0	N.D. d		
41) Naphthalene	6.846	128	6351	0.6999	ng	94
42) 4-Chloroaniline	6.883	127	1341	0.4325	ng	80
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. 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		

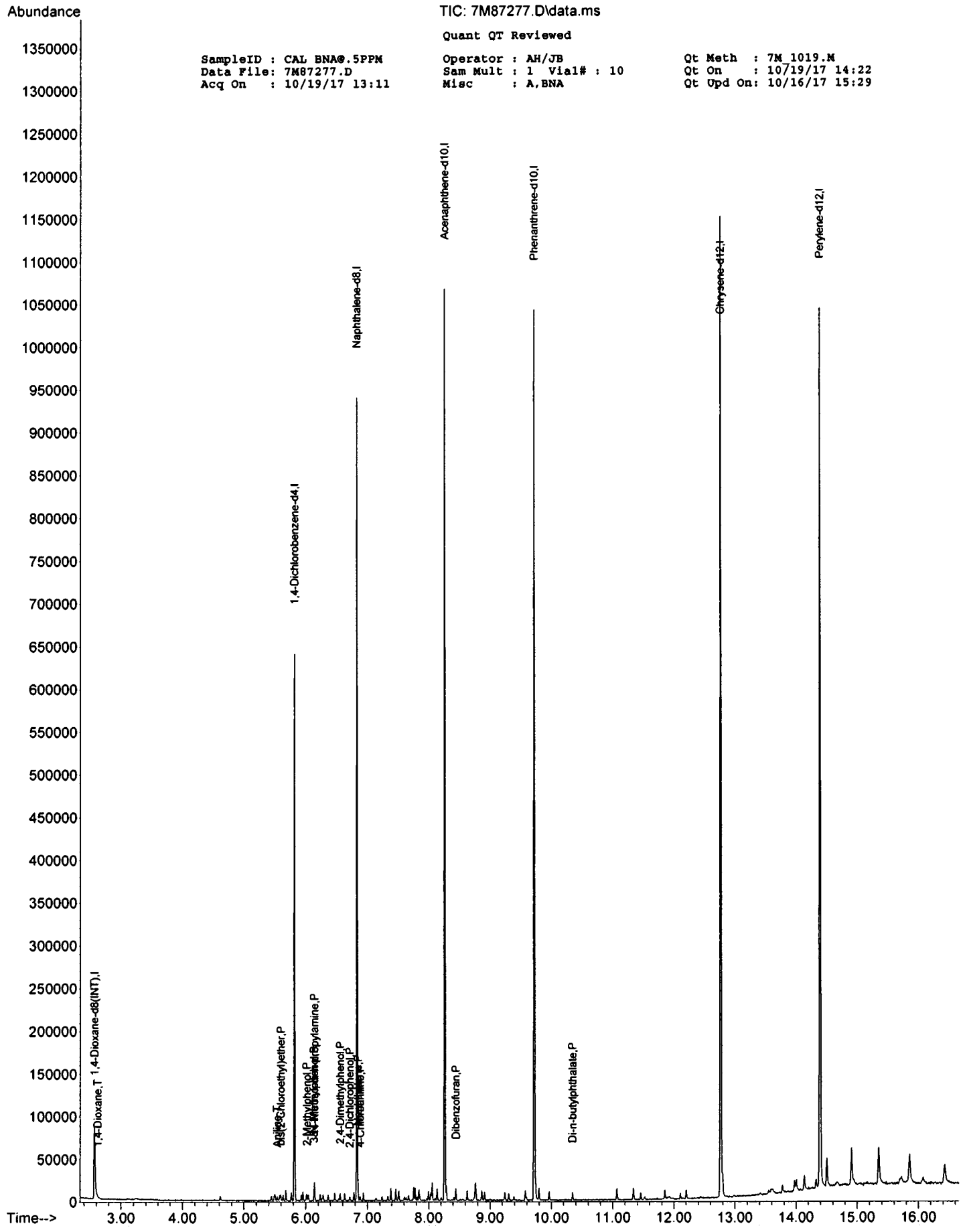
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87277.D Sam Mult : 1 Vial# : 10 Qt On : 10/19/17 14:22
Acq On : 10/19/17 13:11 Misc : A,BNA Qt Upd On: 10/16/17 15:29

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Qt Path : G:\GCMSDATA\2017\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	8.443	168	5790	0.6833	ng	86
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. 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	10.345	149	4714	0.4059	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.		
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


Abundance
TIC: 7M87277.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@.5PPM
Data File: 7M87277.D
Acq On : 10/19/17 13:11
Operator : AH/JB
Sam Mult : 1 Vial# : 10
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 10/19/17 14:22
Qt Upd On: 10/16/17 15:29
1350000
1300000
1250000
1200000
1150000
1100000
1050000
1000000
950000
900000
850000
800000
750000
700000
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Chrysene-d12,I
Perylene-d12,I
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
Aniline,P
Bis(2-chloroethyl)ether,P
2-Methylphenol,P
2,4-Dimethylphenol,P
2,4-Dichlorophenol,P
Dibenzofuran,P
Di-n-butylphthalate,P
Time-->
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
15.00
16.00

7111017 0200

Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_5

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	5M101329.D	CAL BNA@50PPM	10/20/17 12:43	2	5M101322.D	CAL BNA@2PPM	10/20/17 09:48
3	5M101321.D	CAL BNA@10PPM	10/20/17 09:25	4	5M101327.D	CAL BNA@20PPM	10/20/17 11:57
5	5M101326.D	CAL BNA@80PPM	10/20/17 11:34	6	5M101325.D	CAL BNA@120PPM	10/20/17 11:12
7	5M101324.D	CAL BNA@160PPM	10/20/17 10:49	8	5M101323.D	CAL BNA@196PPM	10/20/17 10:26
9	5M101328.D	CAL BNA@.5PPM	10/20/17 12:20				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
1,4-Dioxane	1	0	Qua	1.0703	1.4764	1.1658	1.1166	1.0743	1.0952	1.0454	1.1376	1.7041	1.21	2.47	0.997	0.998	19		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pyridine	1	0	Avg	3.2004	2.4855	2.9554	3.0128	3.1334	3.2806	3.0838	3.5396	-----	3.09	2.90	0.992	0.995	9.8		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitrosodimethylamin	1	0	Avg	1.7360	1.2257	1.6013	1.7445	1.7261	1.7627	1.6846	1.9932	-----	1.68	2.82	0.988	0.993	13		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Fluorophenol	1	0	Avg	2.8276	2.6513	2.5609	2.5494	2.5929	2.8890	2.5293	3.1296	-----	2.72	4.50	0.991	0.993	7.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzaldehyde	1	0	Avg	1.4109	1.3034	1.3626	1.4753	1.2219	0.8951	-----	-----	-----	1.28	5.33	0.930	0.999	16	0.01	50.00	2.00	10.00	20.00	80.00	120.0			
Aniline	1	0	Qua	4.3819	2.6912	2.6715	3.4686	4.1173	4.2022	4.0144	4.9566	2.8854	3.71	5.43	0.983	0.990	22		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Pentachloroethane	1	0	Avg	0.9264	0.9445	0.8310	0.8928	0.8778	0.8709	0.8432	1.0434	-----	0.904	5.47	0.980	0.989	7.5	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethyl)ether	1	0	Avg	2.9319	2.9993	2.8040	2.7934	2.7404	2.7378	2.5878	3.2332	3.2903	2.90	5.49	0.981	0.988	8.1	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	3.6808	3.1558	3.1686	3.4982	3.4230	3.4028	3.2351	3.9894	-----	3.44	5.40	0.981	0.988	8.2		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Phenol	1	0	Avg	4.2670	3.8256	3.6744	4.0474	3.9455	3.8685	3.6762	4.4745	-----	3.97	5.41	0.983	0.989	7.1	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Chlorophenol	1	0	Avg	2.9167	2.8406	2.7425	2.9947	2.9343	2.9618	2.8336	3.5505	-----	2.97	5.53	0.989	0.994	8.3	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Decane	1	0	Avg	2.8841	3.4502	2.8929	3.0670	2.8547	2.7546	2.6017	3.0946	-----	2.95	5.59	0.987	0.991	8.7	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,3-Dichlorobenzene	1	0	Avg	2.8957	3.4612	2.9208	3.0630	2.9842	2.9537	2.8157	3.4474	-----	3.07	5.67	0.983	0.990	8.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,4-Dichlorobenzene	1	0	Avg	1.4669	1.7077	1.4980	1.5136	1.4420	1.4577	1.3930	1.4774	-----	1.49	5.73	0.999	0.999	6.3		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Dichlorobenzene	1	0	Avg	1.3989	1.6884	1.4245	1.4599	1.4015	1.3509	1.3559	1.4300	-----	1.44	5.86	0.998	0.999	7.5		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzyl alcohol	1	0	Avg	0.9293	0.8648	0.8720	0.9436	0.9341	0.9324	0.9136	0.9612	-----	0.919	5.83	1.00	1.00	3.7		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-chloroisopropyl)e	1	0	Avg	1.9483	2.2680	2.0180	2.0398	1.9451	1.8575	1.8310	1.8557	-----	1.97	5.95	1.00	1.00	7.2	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylphenol	1	0	Avg	1.2954	1.3454	1.2779	1.3251	1.3083	1.2729	1.2391	1.3406	1.4481	1.32	5.93	0.998	0.998	4.5	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Acetophenone	1	0	Avg	2.0211	2.1922	2.0728	2.1326	1.9813	1.8914	1.8021	1.8813	-----	2.00	6.04	0.998	0.999	6.7	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachloroethane	1	0	Avg	0.5555	0.6124	0.5234	0.5569	0.5563	0.5474	0.5850	0.5755	-----	0.564	6.14	0.999	0.999	4.7	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Nitroso-di-n-propyla	1	0	Avg	1.0054	1.0613	1.0226	1.0713	1.0114	0.9335	0.8871	0.9292	1.1803	1.01	6.05	0.997	0.998	8.8	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
3&4-Methylphenol	1	0	Avg	1.3533	1.3962	1.3723	1.4220	1.3199	1.2522	1.1956	1.2545	1.5220	1.34	6.05	0.998	0.998	7.5		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Nitrobenzene-d5	1	0	Avg	0.1556	0.1343	0.1425	0.1515	0.1448	0.1658	0.1583	0.1622	-----	0.152	6.17	0.998	0.999	7.1		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
Nitrobenzene	1	0	Avg	0.3485	0.3397	0.3440	0.3651	0.3169	0.3617	0.3400	0.3491	-----	0.346	6.18	0.998	0.998	4.3	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Isophorone	1	0	Avg	0.6474	0.6507	0.6474	0.6654	0.5940	0.6589	0.6386	0.6587	-----	0.645	6.37	0.998	0.999	3.5	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitrophenol	1	0	Avg	0.1781	0.1388	0.1588	0.1751	0.1706	0.1910	0.1845	0.1905	-----	0.173	6.43	0.998	0.999	10	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dimethylphenol	1	0	Avg	0.3486	0.3469	0.3371	0.3476	0.3108	0.3568	0.3377	0.3459	0.4019	0.348	6.47	0.998	0.998	6.9	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	0.2575	-----	0.0471	0.1831	0.3231	0.4108	0.4006	0.4145	-----	0.291	6.56	0.994	0.996	48		50.00		10.00	20.00	80.00	120.0	160.0	196.0	
bis(2-Chloroethoxy)me	1	0	Avg	0.4030	0.4534	0.4116	0.4174	0.3627	0.4070	0.3842	0.3962	-----	0.404	6.54	0.998	0.998	6.5	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dichlorophenol	1	0	Avg	0.2861	0.2611	0.2761	0.2916	0.2803	0.2971	0.2815	0.2864	0.2669	0.281	6.62	0.999	0.999	4.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,2,4-Trichlorobenzen	1	0	Avg	0.3108	0.3617	0.3206	0.3188	0.3079	0.3192	0.2944	0.3048	-----	0.317	6.69	0.998	0.999	6.3		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Naphthalene	1	0	Qua	1.0004	1.2306	1.0691	1.0436	0.9728	1.0349	0.9484	0.9967	1.4207	1.08	6.74	0.998	0.998	14	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	0.3909	0.2986	0.2717	0.3394	0.3667	0.3428	0.2810	0.2723	0.3178	0.320	6.78	0.973	0.996	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Hexachlorobutadiene	1	0	Avg	0.1815	0.2162	0.1834	0.1867	0.1756	0.1887	0.1791	0.1783	-----	0.186	6.84	0.999	0.999	6.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Caprolactam	1	0	Avg	0.1258	0.0781	0.1116	0.1255	0.1289	0.1243	0.1059	0.1039	-----	0.113	7.06	0.985	0.997	15	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chloro-3-methylphe	1	0	Avg	0.3054	0.2736	0.2942	0.3067	0.2990	0.3174	0.2967	0.3180	-----	0.301	7.15	0.998	0.998	4.7	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Methylnaphthalene	1	0	Avg	0.6961	0.7620	0.7218	0.7172	0.6775	0.6974	0.6556	0.6697	-----	0.700	7.28	0.999	0.999	4.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1-Methylnaphthalene	1	0	Avg	0.6662	0.7549	0.7008	0.6925	0.6483	0.6826	0.6320	0.6504	-----	0.679	7.36	0.999	0.999	5.7	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Methylnaphthalenes (	1	0	Avg	0.6832	0.7585	0.7076	0.7043	0.6649	0.6865	0.6401	0.6555	-----	0.688	7.28	0.999	1.00	5.4		100.0	4.00	20.00	40.00	160.0	240.0	320.0	392.0	
1,1'-Biphenyl	1	0	Avg	0.8322	0.9538	0.8619	0.8569	0.8148	0.8447	0.7142	0.8101	-----	0.836	7.65	0.991	0.991	8.0	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2,4,5-Tetrachloroben	1	0	Avg	0.5547	0.6815	0.5789	0.5634	0.5333	0.5564	0.5662	0.5327	-----	0.571	7.41	0.998	0.998	8.3	0.01	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: 8.81

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.

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Form 6
Initial Calibration

Method: EPA 8270D

Instrument: GCMS_5

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	5M101329.D	CAL BNA@50PPM	10/20/17 12:43	2	5M101322.D	CAL BNA@2PPM	10/20/17 09:48
3	5M101321.D	CAL BNA@10PPM	10/20/17 09:25	4	5M101327.D	CAL BNA@20PPM	10/20/17 11:57
5	5M101326.D	CAL BNA@80PPM	10/20/17 11:34	6	5M101325.D	CAL BNA@120PPM	10/20/17 11:12
7	5M101324.D	CAL BNA@160PPM	10/20/17 10:49	8	5M101323.D	CAL BNA@196PPM	10/20/17 10:26
9	5M101328.D	CAL BNA@.5PPM	10/20/17 12:20				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
Hexachlorocyclopenta	1	0	Avg	0.3061	0.2261	0.2638	0.2829	0.3033	0.3233	0.3385	0.3095	-----	0.294	7.41	0.998	0.998	12	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	0.3404	0.2869	0.3192	0.3423	0.3254	0.3516	0.3562	0.3452	-----	0.333	7.50	0.999	0.999	6.8	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	0.3674	0.3125	0.3561	0.3799	0.3586	0.3692	0.3848	0.3772	-----	0.363	7.53	0.999	1.00	6.3	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Fluorobiphenyl	1	0	Avg	1.2337	1.4914	1.3272	1.2454	1.1688	1.2335	1.2059	1.1886	-----	1.26	7.57	1.00	1.00	8.3		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	
2-Chloronaphthalene	1	0	Avg	1.0455	1.2036	1.0942	1.0455	1.0067	1.0246	0.9601	1.0065	-----	1.05	7.67	0.999	0.999	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	0.8366	0.9784	0.8770	0.8441	0.7783	0.7813	0.7382	0.7277	-----	0.820	7.95	0.998	1.00	10		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylnaphthalenes	1	0	Avg	0.8366	0.9784	0.8770	0.8441	0.7783	0.7813	0.7382	0.7277	-----	0.820	7.95	0.998	1.00	10		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diphenyl Ether	1	0	Avg	0.7914	0.9490	0.8573	0.8002	0.7394	0.7756	0.7047	0.7161	-----	0.792	7.73	0.997	0.998	10		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2-Nitroaniline	1	0	Avg	0.3828	0.3305	0.3722	0.3762	0.3703	0.3884	0.3552	0.3642	-----	0.368	7.74	0.999	0.999	4.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Coumarin	1	0	Avg	0.4285	0.4442	0.4440	0.4289	0.4116	0.4238	0.3881	0.3908	-----	0.420	7.93	0.998	0.999	5.1		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthylene	1	0	Avg	1.6345	1.7387	1.6852	1.6324	1.5378	1.5707	1.4773	1.5077	-----	1.60	8.03	0.999	0.999	5.6	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dimethylphthalate	1	0	Avg	1.2615	1.4090	1.3143	1.2531	1.1724	1.2254	1.1468	1.1793	-----	1.25	7.90	0.999	0.999	6.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,6-Dinitrotoluene	1	0	Avg	0.2804	0.2570	0.2831	0.2831	0.2677	0.2701	0.2510	0.2496	-----	0.268	7.95	0.998	0.999	5.2	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthene	1	0	Avg	1.0621	1.2760	1.1383	1.1076	1.0341	1.0510	0.9900	0.9925	-----	1.08	8.18	0.999	1.00	8.7	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3-Nitroaniline	1	0	Avg	0.3077	0.2487	0.2794	0.2775	0.2863	0.2885	0.2486	0.2595	-----	0.275	8.10	0.992	0.996	7.6	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
2,4-Dinitrophenol	1	0	Qua	0.1296	-----	0.0561	0.1021	0.1673	0.1832	0.1818	0.1914	-----	0.145	8.19	0.997	0.998	35	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzofuran	1	0	Qua	1.5442	1.9099	1.6291	1.5549	1.4559	1.4937	1.4161	1.4317	2.1102	1.62	8.33	0.999	1.00	15	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	Avg	0.3884	0.3116	0.3629	0.3953	0.3861	0.4027	0.3827	0.4051	-----	0.379	8.30	0.999	0.999	8.0	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitrophenol	1	0	Qua	0.2282	0.1314	0.2145	0.2241	0.2256	0.2387	0.2378	0.2519	-----	0.219	8.23	0.998	0.999	17	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	0.3402	0.2290	0.3087	0.3397	0.3231	0.3438	0.3173	0.3327	-----	0.317	8.44	0.998	0.998	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Fluorene	1	0	Avg	1.2045	1.4725	1.3276	1.2735	1.1828	1.2186	1.1487	1.0869	-----	1.24	8.65	0.996	0.999	9.6	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Chlorophenyl-phenyl	1	0	Avg	0.6216	0.7174	0.6717	0.6339	0.5851	0.6093	0.5729	0.5542	-----	0.621	8.65	0.997	0.999	8.7	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Diethylphthalate	1	0	Avg	1.2334	1.2943	1.2688	1.2307	1.1935	1.2504	1.1728	1.1935	-----	1.23	8.53	0.999	0.999	3.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Nitroaniline	1	0	Avg	0.3515	0.2812	0.3432	0.3522	0.3587	0.3700	0.3455	0.3297	-----	0.342	8.66	0.996	0.999	7.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Atrazine	1	0	Avg	0.3620	0.3380	0.3386	0.3609	0.3598	0.3656	0.3494	0.3219	-----	0.350	9.28	0.994	0.999	4.4	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	0.1159	-----	0.0693	0.0985	0.1423	0.1385	0.1390	0.1448	-----	0.121	8.69	0.998	0.999	23	0.01	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
n-Nitrosodiphenylamin	1	0	Avg	0.5993	0.5780	0.6092	0.6008	0.6330	0.5785	0.5603	0.5791	-----	0.592	8.75	0.998	0.999	3.9	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	0.0992	0.0569	0.0846	0.0960	0.1060	0.0968	0.0948	0.0989	-----	0.0917	8.88	0.998	0.998	17		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
1,2-Diphenylhydrazine	1	0	Avg	0.6764	0.6053	0.6619	0.6789	0.7084	0.6888	0.6752	0.7095	-----	0.676	8.80	0.999	1.00	4.9		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4-Bromophenyl-phenyl	1	0	Avg	0.2006	0.1818	0.1988	0.2025	0.2136	0.1989	0.1930	0.2002	-----	0.199	9.13	0.998	0.999	4.5	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Hexachlorobenzene	1	0	Avg	0.2113	0.2266	0.2159	0.2153	0.2212	0.1975	0.1950	0.2046	-----	0.211	9.20	0.997	0.997	5.3	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
N-Octadecane	1	0	Avg	0.4415	0.4176	0.4250	0.4385	0.4156	0.3906	0.3698	0.3687	-----	0.408	9.47	0.996	0.999	7.0	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pentachlorophenol	1	0	Qua	0.1229	-----	0.0730	0.1022	0.1403	0.1376	0.1362	0.1425	-----	0.122	9.39	0.999	0.999	21	0.05	50.00		10.00	20.00	80.00	120.0	160.0	196.0	
Phenanthrene	1	0	Avg	1.0601	1.2398	1.0896	1.0965	1.0233	1.0318	0.9842	1.0070	-----	1.07	9.62	0.999	1.00	7.5	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Anthracene	1	0	Avg	1.0956	1.1291	1.0915	1.1148	1.0638	1.0673	1.0275	1.0458	-----	1.08	9.68	1.00	1.00	3.2	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Carbazole	1	0	Avg	0.9935	1.0506	1.0212	1.0231	0.9880	0.9691	0.9167	0.9680	-----	0.991	9.85	0.998	0.998	4.2	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-butylphthalate	1	0	Avg	1.1827	0.9563	1.0850	1.1703	1.1919	1.1329	1.1012	1.1504	1.0838	1.12	10.24	0.999	0.999	6.5	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Fluoranthene	1	0	Avg	1.2116	1.3055	1.2213	1.2160	1.2023	1.1398	1.1217	1.1733	-----	1.20	10.95	0.999	0.999	4.7	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Pyrene	1	0	Avg	1.0834	1.1236	1.0630	1.0740	1.0505	1.0749	1.0074	1.0720	-----	1.07	11.21	0.998	0.998	3.0	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzidine	1	0	Qua	0.5311	0.1393	0.2438	0.4079	0.5047	0.4244	-----	-----	-----	0.375	11.10	0.978	0.996	41		50.00	2.00	10.00	20.00	80.00	120.0			
Terphenyl-d14	1	0	Avg	0.6166	0.6491	0.6261	0.6478	0.6275	0.6535	0.6336	0.6881	-----	0.643	11.40	0.997	0.998	3.5		25.00	1.00	5.00	10.00	40.00	60.00	80.00	96.00	

Avg Rsd: 8.81

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.

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Method: EPA 8270D

Form 6
Initial Calibration

Instrument: GCMS_5

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	5M101329.D	CAL BNA@50PPM	10/20/17 12:43	2	5M101322.D	CAL BNA@2PPM	10/20/17 09:48
3	5M101321.D	CAL BNA@10PPM	10/20/17 09:25	4	5M101327.D	CAL BNA@20PPM	10/20/17 11:57
5	5M101326.D	CAL BNA@80PPM	10/20/17 11:34	6	5M101325.D	CAL BNA@120PPM	10/20/17 11:12
7	5M101324.D	CAL BNA@160PPM	10/20/17 10:49	8	5M101323.D	CAL BNA@196PPM	10/20/17 10:26
9	5M101328.D	CAL BNA@.5PPM	10/20/17 12:20				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRf	RT	Corr1	Corr2	%Rsd		Calibration Level Concentrations Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
4,4'-DDE	1	0	Avg	0.2271	0.2220	0.2222	0.2227	0.2236	0.2301	0.2199	0.2327	-----	0.225	11.34	0.999	0.999	2.0		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDD	1	0	Avg	0.4406	0.3783	0.4139	0.4277	0.4387	0.4307	0.4127	0.4387	-----	0.423	11.73	0.999	0.999	5.0		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Butylbenzylphthalate	1	0	Qua	0.4666	0.3071	0.4001	0.4443	0.4686	0.4678	0.4510	0.4788	-----	0.436	11.99	0.999	0.999	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
4,4'-DDT	1	0	Avg	0.3636	0.2574	0.3367	0.3549	0.3713	0.3798	0.3665	0.3822	-----	0.352	12.09	1.00	1.00	12		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3,3'-Dichlorobenzidine	1	0	Qua	0.3321	0.2106	0.2395	0.2542	0.3249	0.2997	0.2653	0.2705	-----	0.275	12.61	0.989	0.996	15	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]anthracene	1	0	Avg	1.0385	1.1646	1.0327	1.0720	1.0333	1.0322	0.9912	1.0337	-----	1.05	12.63	0.999	0.999	4.9	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Chrysene	1	0	Avg	1.0176	1.1820	1.0491	1.0390	0.9941	0.9905	0.9413	0.9715	-----	1.02	12.67	0.999	1.00	7.1	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	0.6663	0.4314	0.5804	0.6398	0.6494	0.6683	0.6292	0.6344	-----	0.612	12.69	0.999	0.999	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Di-n-octylphthalate	1	0	Qua	1.2357	0.8471	0.9943	1.0834	1.1970	1.2081	1.0803	1.2041	-----	1.11	13.44	0.994	0.994	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[b]fluoranthene	1	0	Avg	1.0685	1.3029	1.0437	1.0701	1.0753	1.0432	0.9610	1.1448	-----	1.09	13.84	0.995	0.995	9.2	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[k]fluoranthene	1	0	Avg	1.0874	1.2496	1.1357	1.0518	1.0042	1.0588	0.9165	0.9676	-----	1.06	13.87	0.994	0.995	9.8	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[a]pyrene	1	0	Avg	1.0636	1.0647	1.0248	1.0518	1.0100	1.0198	0.9707	1.0283	-----	1.03	14.19	0.999	0.999	3.0	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Indeno[1,2,3-cd]pyren	1	0	Avg	1.0819	1.1970	1.1075	1.0823	1.0467	1.0410	0.9186	1.0649	-----	1.07	15.51	0.996	0.996	7.3	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Dibenzo[a,h]anthracen	1	0	Avg	0.9376	1.0148	0.9546	0.9378	0.9075	0.9011	0.7734	0.9001	-----	0.916	15.53	0.989	0.989	7.5	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Benzo[g,h,i]perylene	1	0	Avg	0.9011	1.0146	0.9422	0.8301	0.8682	0.8774	0.7724	0.8855	-----	0.886	15.86	0.992	0.992	8.1	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	

Flags	*Note:* Avg Rsd: 8.81
a - failed the min rf criteria	*Corr 1 = Correlation Coefficient for linear Eq.*
c - failed the minimum correlation coeff criteria(if applicable)	*Corr 2 = Correlation Coefficient for quad Eq.*
	Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101329.D Sam Mult : 1 Vial# : 2 Qt On : 10/20/17 14:25
Acq On : 10/20/17 12:43 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	38907	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	78662	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	327254	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	207026	40.00	ng	0.00
77) Phenanthrene-d10	9.597	188	376951	40.00	ng	0.00
91) Chrysene-d12	12.643	240	445075	40.00	ng	0.00
103) Perylene-d12	14.245	264	401167	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.501	112	137519	55.74	ng	0.00
Spiked Amount 100.000			Recovery = 55.74%			
16) Phenol-d5	5.398	99	179014	57.26	ng	0.00
Spiked Amount 100.000			Recovery = 57.26%			
32) Nitrobenzene-d5	6.168	128	31841	26.04	ng	0.00
Spiked Amount 50.000			Recovery = 52.08%			
55) 2-Fluorobiphenyl	7.567	172	159632	24.95	ng	0.00
Spiked Amount 50.000			Recovery = 49.90%			
80) 2,4,6-Tribromophenol	8.882	330	46742	53.53	ng	0.00
Spiked Amount 100.000			Recovery = 53.53%			
94) Terphenyl-d14	11.398	244	171520	24.33	ng	0.00
Spiked Amount 50.000			Recovery = 48.66%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.466	88	52056	52.1495	ng	95
9) Pyridine	2.904	79	155649	53.6784	ng	75
10) N-Nitrosodimethylamine	2.823	74	84428	53.3327	ng	75
12) Benzaldehyde	5.329	77	68618	54.3124	ng	83
13) Aniline	5.430	93	213108	60.3135	ng	46
14) Pentachloroethane	5.473	117	45058	55.7857	ng	78
15) bis(2-Chloroethyl)ether	5.489	93	142591	53.3546	ng	81
17) Phenol	5.414	94	207521	58.3576	ng	82
18) 2-Chlorophenol	5.532	128	141854	52.2927	ng	82
19) N-Decane	5.591	57	140265	51.5060	ng	86
20) 1,3-Dichlorobenzene	5.666	146	140830	49.8427	ng	97
22) 1,4-Dichlorobenzene	5.730	146	144244	49.2683	ng	98
23) 1,2-Dichlorobenzene	5.858	146	137555	49.4687	ng	98
24) Benzyl alcohol	5.831	108	91376	52.2695	ng	74
25) bis(2-chloroisopropyl)...	5.949	45	191577	49.8889	ng	95
26) 2-Methylphenol	5.927	108	127379	49.7342	ng	97
27) Acetophenone	6.045	105	198732	52.1425	ng	72
28) Hexachloroethane	6.136	117	54623	50.3962	ng	89
29) N-Nitroso-di-n-propyla...	6.050	70	98866	51.7920	ng	70
30) 3&4-Methylphenol	6.050	108	133072	51.0672	ng	99
33) Nitrobenzene	6.184	77	142560	50.7008	ng	80
34) Isophorone	6.371	82	264857	51.6725	ng	89
35) 2-Nitrophenol	6.435	139	72854	51.8245	ng	86
36) 2,4-Dimethylphenol	6.467	107	142631	51.4892	ng	94
37) Benzoic Acid	6.558	105	105350	46.4220	ng	88
38) bis(2-Chloroethoxy)met...	6.536	93	164885	50.6816	ng	97
39) 2,4-Dichlorophenol	6.622	162	117034	51.2422	ng	86
40) 1,2,4-Trichlorobenzene	6.686	180	127166	49.0590	ng	97
41) Naphthalene	6.745	128	409268	52.0743	ng	99
42) 4-Chloroaniline	6.782	127	159916m	67.1649	ng	
43) Hexachlorobutadiene	6.841	225	74272	49.2084	ng	97
44) Caprolactam	7.060	113	51462	58.2899	ng	70
45) 4-Chloro-3-methylphenol	7.151	107	124953	51.9379	ng	76
46) 2-Methylnaphthalene	7.279	142	284766	49.8814	ng	100
47) 1-Methylnaphthalene	7.359	142	272556	49.6186	ng	92
48) Methylnaphthalenes (To...	7.279	142	558983m	99.5665	ng	
49) 1,1'-Biphenyl	7.648	154	340447	48.8995	ng	96
51) 1,2,4,5-Tetrachloroben...	7.412	216	143565	49.8549	ng	99
52) Hexachlorocyclopentadiene	7.407	237	79219	51.9817	ng	99
53) 2,4,6-Trichlorophenol	7.498	196	88101	51.5290	ng	97
54) 2,4,5-Trichlorophenol	7.530	196	95089	54.1479	ng	97
56) 2-Chloronaphthalene	7.669	162	270566	49.8949	ng	93
57) 1,4-Dimethylnaphthalene	7.952	156	216502	51.4460	ng	89
58) Dimethylnaphthalenes (...	7.952	156	216502	51.4460	ng	89
59) Diphenyl Ether	7.733	170	204821	50.5207	ng	80
60) 2-Nitroaniline	7.744	65	99065	53.1704	ng	69
61) Coumarin	7.931	146	110896	52.0341	ng	76
62) Acenaphthylene	8.027	152	422980	51.2091	ng	99
63) Dimethylphthalate	7.899	163	326454	51.9188	ng	99
64) 2,6-Dinitrotoluene	7.952	165	72564	53.2621	ng	62
65) Acenaphthene	8.182	153	274865	49.1778	ng	98

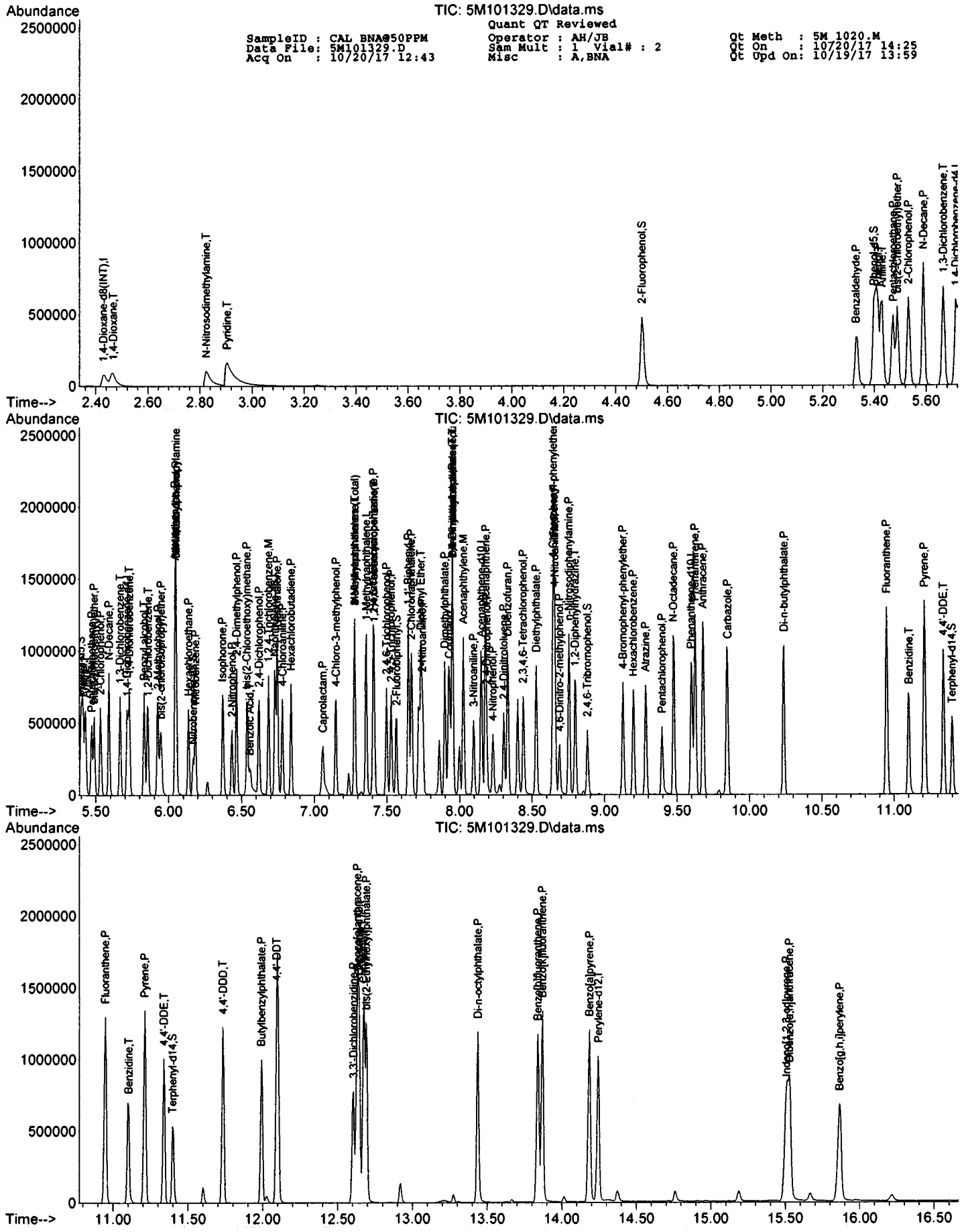
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101329.D Sam Mult : 1 Vial# : 2 Qt On : 10/20/17 14:25
Acq On : 10/20/17 12:43 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.096	138	79642	60.1601	ng	78
67)	2,4-Dinitrophenol	8.187	184	33550	43.1669	ng	50
68)	Dibenzofuran	8.331	168	399615	47.8449	ng	86
69)	2,4-Dinitrotoluene	8.305	165	100519	51.4328	ng	64
70)	4-Nitrophenol	8.230	65	59068m	49.7355	ng	
71)	2,3,4,6-Tetrachlorophenol	8.438	232	88047	53.2024	ng	81
72)	Fluorene	8.652	166	311718	48.3224	ng	99
73)	4-Chlorophenyl-phenyle...	8.646	204	160869	50.0228	ng	79
74)	Diethylphthalate	8.529	149	319186	50.8269	ng	96
75)	4-Nitroaniline	8.657	138	90964	51.0593	ng	74
76)	Atrazine	9.282	200	93682	51.7228	ng	97
78)	4,6-Dinitro-2-methylph...	8.689	198	54653	45.2793	ng	66
79)	n-Nitrosodiphenylamine	8.753	169	282416	49.9852	ng	98
81)	1,2-Diphenylhydrazine	8.796	77	318739	48.1144	ng	86
82)	4-Bromophenyl-phenylether	9.127	248	94538	49.3031	ng	82
83)	Hexachlorobenzene	9.197	284	99572	49.2802	ng	68
84)	N-Octadecane	9.475	57	208043	54.5693	ng	84
85)	Pentachlorophenol	9.394	266	57947	50.9477	ng	96
86)	Phenanthrene	9.624	178	499528	49.8015	ng	99
87)	Anthracene	9.678	178	516261	51.1761	ng	100
88)	Carbazole	9.849	167	468142	50.3378	ng	97
89)	Di-n-butylphthalate	10.239	149	557301	54.7431	ng	96
90)	Fluoranthene	10.949	202	570898	51.5652	ng	91
92)	Pyrene	11.211	202	602757	51.6610	ng	89
93)	Benzidine	11.104	184	295507	54.5204	ng	85
95)	4,4'-DDE	11.339	246	126394	51.7328	ng	96
96)	4,4'-DDD	11.734	235	245175	53.4563	ng	97
97)	Butylbenzylphthalate	11.991	149	259614	53.7376	ng	74
98)	4,4'-DDT	12.092	235	202299	51.1532	ng	99
99)	3,3'-Dichlorobenzidine	12.605	252	184797	63.7569	ng	95
100)	Benzo[a]anthracene	12.632	228	577797	49.7199	ng	100
101)	Chrysene	12.675	228	566155	50.0353	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.691	149	370707	55.6322	ng	95
104)	Di-n-octylphthalate	13.438	149	619671	58.0082	ng	100
105)	Benzo[b]fluoranthene	13.839	252	535845	49.5337	ng	95
106)	Benzo[k]fluoranthene	13.871	252	545313m	51.0097	ng	
107)	Benzo[a]pyrene	14.186	252	533387	52.3901	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.506	276	542546	50.1869	ng	81
109)	Dibenzo[a,h]anthracene	15.527	278	470191	50.7664	ng	88
110)	Benzo[g,h,i]perylene	15.864	276	451900	47.7811	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 5M101329.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 5M101329.D
Acq On : 10/20/17 12:43
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:25
Qt Upd On: 10/19/17 13:59
Abundance
Time-->
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dichlorophenol,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
4-Nitrophenol,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
4,4'-DDE,T
Butylbenzylphthalate,P
4,4'-DDD,T
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@2PPM
Data File: 5M101322.D
Acq On : 10/20/17 09:48
Operator : AH/JB
Sam Mult : 1 Vial# : 4
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:26
Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.434	96	36548	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	72363	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	299029	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	184095	40.00	ng	0.00
77) Phenanthrene-d10	9.598	188	384490	40.00	ng	0.00
91) Chrysene-d12	12.637	240	466759	40.00	ng	0.00
103) Perylene-d12	14.245	264	393641	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	4845m	2.09	ng	0.00
Spiked Amount 100.000			Recovery = 2.09%			
16) Phenol-d5	5.399	99	5767	1.96	ng	0.00
Spiked Amount 100.000			Recovery = 1.96%			
32) Nitrobenzene-d5	6.168	128	1004	0.90	ng	0.00
Spiked Amount 50.000			Recovery = 1.80%			
55) 2-Fluorobiphenyl	7.562	172	6864	1.21	ng	0.00
Spiked Amount 50.000			Recovery = 2.42%			
80) 2,4,6-Tribromophenol	8.882	330	1095	1.23	ng	0.00
Spiked Amount 100.000			Recovery = 1.23%			
94) Terphenyl-d14	11.398	244	7575	1.02	ng	0.00
Spiked Amount 50.000			Recovery = 2.04%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.471	88	2698	2.9537	ng	94
9) Pyridine	3.069	79	4542m	1.6675	ng	
10) N-Nitrosodimethylamine	2.920	74	2240m	1.5063	ng	
12) Benzaldehyde	5.334	77	2382	2.0071	ng	81
13) Aniline	5.431	93	4918	1.5822	ng	44
14) Pentachloroethane	5.473	117	1726	2.2749	ng	81
15) bis(2-Chloroethyl)ether	5.489	93	5481	2.1833	ng	83
17) Phenol	5.409	94	6991	2.0929	ng	89
18) 2-Chlorophenol	5.532	128	5191	2.0371	ng	85
19) N-Decane	5.591	57	6305	2.4647	ng	90
20) 1,3-Dichlorobenzene	5.666	146	6325	2.3830	ng	99
22) 1,4-Dichlorobenzene	5.730	146	6179	2.2942	ng	98
23) 1,2-Dichlorobenzene	5.858	146	6109	2.3882	ng	97
24) Benzyl alcohol	5.831	108	3129	1.9457	ng	86
25) bis(2-chloroisopropyl)...	5.944	45	8206	2.3230	ng	100
26) 2-Methylphenol	5.922	108	4868	2.0661	ng	100
27) Acetophenone	6.045	105	7932	2.2623	ng	76
28) Hexachloroethane	6.136	117	2216	2.2225	ng	88
29) N-Nitroso-di-n-propyla...	6.045	70	3840	2.1867	ng	76
30) 3&4-Methylphenol	6.050	108	5052	2.1075	ng	100
33) Nitrobenzene	6.184	77	5080	1.9772	ng	79
34) Isophorone	6.371	82	9729	2.0772	ng	86
35) 2-Nitrophenol	6.435	139	2076	1.6161	ng	91
36) 2,4-Dimethylphenol	6.462	107	5188	2.0496	ng	99
37) Benzoic Acid	0.000		0	N.D.		
38) bis(2-Chloroethoxy)met...	6.536	93	6780	2.2807	ng	98
39) 2,4-Dichlorophenol	6.622	162	3904	1.8707	ng	87
40) 1,2,4-Trichlorobenzene	6.686	180	5409	2.2837	ng	94
41) Naphthalene	6.745	128	18400	2.5674	ng	99
42) 4-Chloroaniline	6.782	127	4465m	2.0523	ng	
43) Hexachlorobutadiene	6.841	225	3233	2.3442	ng	93
44) Caprolactam	7.028	113	1168	1.4478	ng	67
45) 4-Chloro-3-methylphenol	7.146	107	4092	1.8614	ng	78
46) 2-Methylnaphthalene	7.279	142	11393	2.1840	ng	100
47) 1-Methylnaphthalene	7.359	142	11287	2.2487	ng	92
48) Methylnaphthalenes (To...	7.279	142	22683m	4.4217	ng	
49) 1,1'-Biphenyl	7.648	154	14262	2.2419	ng	96
51) 1,2,4,5-Tetrachloroben...	7.413	216	6273	2.4497	ng	97
52) Hexachlorocyclopentadiene	7.407	237	2082	1.5363	ng	98
53) 2,4,6-Trichlorophenol	7.498	196	2641	1.7371	ng	95
54) 2,4,5-Trichlorophenol	7.525	196	2877	1.8424	ng	96
56) 2-Chloronaphthalene	7.669	162	11079	2.2976	ng	89
57) 1,4-Dimethylnaphthalene	7.952	156	9006	2.4066	ng	86
58) Dimethylnaphthalenes (...	7.952	156	9006	2.4066	ng	86
59) Diphenyl Ether	7.733	170	8736	2.4232	ng	77
60) 2-Nitroaniline	7.744	65	3043	1.8367	ng	80
61) Coumarin	7.925	146	4089	2.1576	ng	74
62) Acenaphthylene	8.022	152	16005	2.1790	ng	98
63) Dimethylphthalate	7.893	163	12970	2.3197	ng	98
64) 2,6-Dinitrotoluene	7.947	165	2366	1.9530	ng	68
65) Acenaphthene	8.177	153	11746	2.3633	ng	95

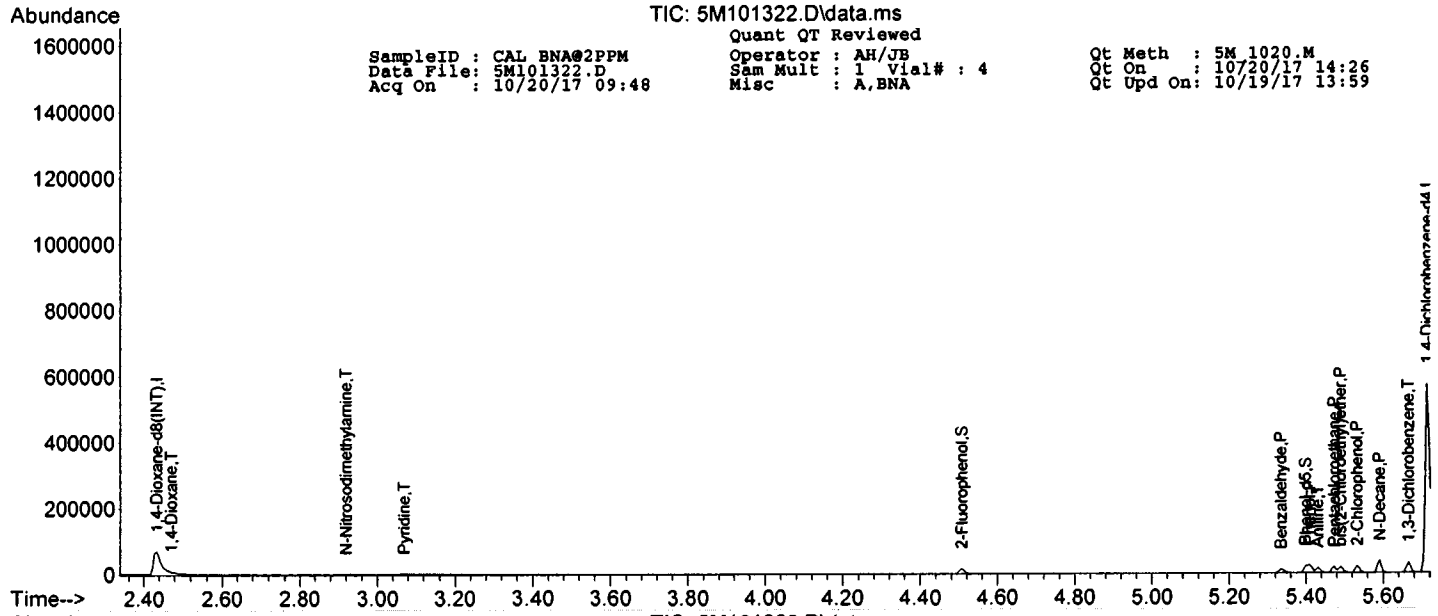
Quantitation Report (QT Reviewed)

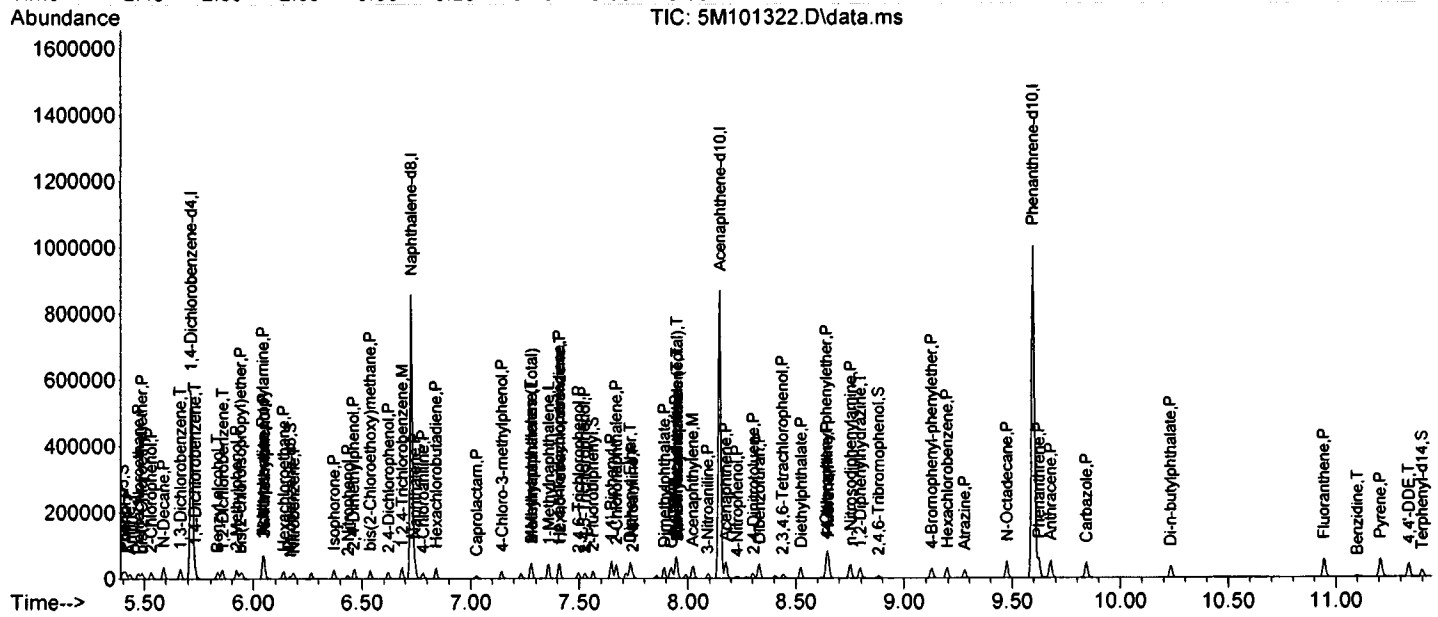
SampleID : CAL BNA@2PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101322.D Sam Mult : 1 Vial# : 4 Qt On : 10/20/17 14:26
Acq On : 10/20/17 09:48 Misc : A,BNA Qt Upd On: 10/19/17 13:59

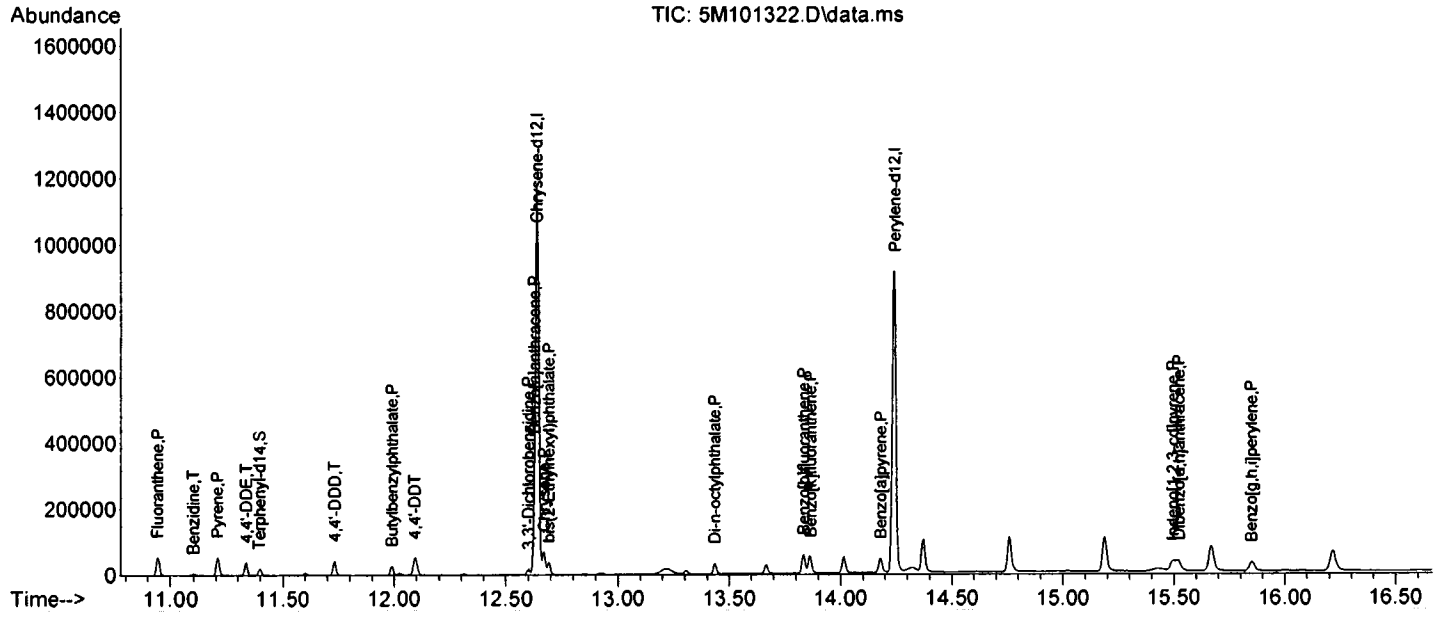
Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.091	138	2290	1.9453	ng	81
67)	2,4-Dinitrophenol	0.000		0	N.D.		
68)	Dibenzofuran	8.331	168	17581	2.3671	ng	86
69)	2,4-Dinitrotoluene	8.305	165	2869	1.6508	ng	53
70)	4-Nitrophenol	8.230	65	1210	1.1792	ng	88
71)	2,3,4,6-Tetrachlorophenol	8.438	232	2108	1.4324	ng	79
72)	Fluorene	8.652	166	13554	2.3629	ng	97
73)	4-Chlorophenyl-phenyle...	8.641	204	6604	2.3093	ng	88
74)	Diethylphthalate	8.524	149	11914	2.1335	ng	93
75)	4-Nitroaniline	8.647	138	2589	1.6343	ng	76
76)	Atrazine	9.277	200	3112	1.9322	ng	91
78)	4,6-Dinitro-2-methylph...	0.000		0	N.D.		
79)	n-Nitrosodiphenylamine	8.754	169	11112	1.9282	ng	97
81)	1,2-Diphenylhydrazine	8.796	77	11637	1.7222	ng	83
82)	4-Bromophenyl-phenylether	9.127	248	3495	1.7870	ng	81
83)	Hexachlorobenzene	9.197	284	4358	2.1146	ng	63
84)	N-Octadecane	9.475	57	8029	2.0647	ng	82
85)	Pentachlorophenol	0.000		0	N.D. d		
86)	Phenanthrene	9.624	178	23835	2.3297	ng	99
87)	Anthracene	9.678	178	21707	2.1096	ng	99
88)	Carbazole	9.843	167	20198	2.1292	ng	96
89)	Di-n-butylphthalate	10.233	149	18386	1.7706	ng	97
90)	Fluoranthene	10.944	202	25098	2.2225	ng	93
92)	Pyrene	11.206	202	26223	2.1431	ng	87
93)	Benzidine	11.099	184	3252	0.5477	ng	96
95)	4,4'-DDE	11.339	246	5182	2.0224	ng	96
96)	4,4'-DDD	11.734	235	8829	1.8356	ng	98
97)	Butylbenzylphthalate	11.991	149	7168	1.4937	ng	70
98)	4,4'-DDT	12.092	235	6008	1.4486	ng	99
99)	3,3'-Dichlorobenzidine	12.600	252	4915	1.6192	ng	94
100)	Benzo[a]anthracene	12.627	228	27180	2.2302	ng	97
101)	Chrysene	12.669	228	27586	2.3247	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.691	149	10070	1.4410	ng	93
104)	Di-n-octylphthalate	13.433	149	16673	1.5906	ng	100
105)	Benzo[b]fluoranthene	13.834	252	25644m	2.4159	ng	
106)	Benzo[k]fluoranthene	13.866	252	24595	2.3447	ng	90
107)	Benzo[a]pyrene	14.181	252	20957	2.0978	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.495	276	23561	2.2211	ng	83
109)	Dibenzo[a,h]anthracene	15.522	278	19974	2.1978	ng	88
110)	Benzo[g,h,i]perylene	15.848	276	19971	2.1520	ng	74

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 5M101322.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@2PPM
Data File: 5M101322.D
Acq On : 10/20/17 09:48
Operator : AH/JB
Sam Mult : 1 Vial# : 4
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:26
Qt Upd On: 10/19/17 13:59
Abundance
Time-->


TIC: 5M101322.D\data.ms
Abundance
Time-->


TIC: 5M101322.D\data.ms
Abundance
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101321.D Sam Mult : 1 Vial# : 3 Qt On : 10/20/17 14:25
Acq On : 10/20/17 09:25 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	34776	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	70328	40.00	ng	0.00
31) Naphthalene-d8	6.734	136	288262	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	178968	40.00	ng	0.00
77) Phenanthrene-d10	9.603	188	340868	40.00	ng	0.00
91) Chrysene-d12	12.643	240	416531	40.00	ng	0.00
103) Perylene-d12	14.245	264	389436	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	22265	10.10	ng	0.00
Spiked Amount 100.000			Recovery = 10.10%			
16) Phenol-d5	5.399	99	27548	9.86	ng	0.00
Spiked Amount 100.000			Recovery = 9.86%			
32) Nitrobenzene-d5	6.168	128	5138	4.77	ng	0.00
Spiked Amount 50.000			Recovery = 9.54%			
55) 2-Fluorobiphenyl	7.567	172	29691	5.37	ng	0.00
Spiked Amount 50.000			Recovery = 10.74%			
80) 2,4,6-Tribromophenol	8.887	330	7211	9.13	ng	0.00
Spiked Amount 100.000			Recovery = 9.13%			
94) Terphenyl-d14	11.403	244	32600	4.94	ng	0.00
Spiked Amount 50.000			Recovery = 9.88%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.471	88	10136	11.6080	ng	97
9) Pyridine	2.962	79	25695	9.9140	ng	73
10) N-Nitrosodimethylamine	2.856	74	13922	9.8391	ng	71
12) Benzaldehyde	5.334	77	11847	10.4910	ng	77
13) Aniline	5.431	93	23226	7.7971	ng	45
14) Pentachloroethane	5.473	117	7225	10.0078	ng	79
15) bis(2-Chloroethyl)ether	5.489	93	24378	10.2053	ng	82
17) Phenol	5.409	94	31946	10.0508	ng	84
18) 2-Chlorophenol	5.532	128	23844	9.8339	ng	80
19) N-Decane	5.591	57	25151	10.3326	ng	90
20) 1,3-Dichlorobenzene	5.666	146	25394	10.0551	ng	95
22) 1,4-Dichlorobenzene	5.730	146	26339	10.0625	ng	99
23) 1,2-Dichlorobenzene	5.858	146	25047	10.0750	ng	97
24) Benzyl alcohol	5.831	108	15333	9.8102	ng	77
25) bis(2-chloroisopropyl)...	5.949	45	35481	10.3346	ng	96
26) 2-Methylphenol	5.927	108	22469	9.8125	ng	98
27) Acetophenone	6.045	105	36445	10.6954	ng	73
28) Hexachloroethane	6.136	117	9204	9.4981	ng	90
29) N-Nitroso-di-n-propyla...	6.050	70	17981	10.5358	ng	71
30) 3&4-Methylphenol	6.050	108	24129	10.3569	ng	100
33) Nitrobenzene	6.184	77	24792	10.0098	ng	77
34) Isophorone	6.371	82	46661	10.3347	ng	90
35) 2-Nitrophenol	6.435	139	11450	9.2467	ng	88
36) 2,4-Dimethylphenol	6.467	107	24297	9.9575	ng	94
37) Benzoic Acid	6.520	105	3398	2.0365	ng	81
38) bis(2-Chloroethoxy)met...	6.536	93	29664	10.3513	ng	99
39) 2,4-Dichlorophenol	6.622	162	19901	9.8921	ng	86
40) 1,2,4-Trichlorobenzene	6.686	180	23105	10.1193	ng	97
41) Naphthalene	6.745	128	77048	11.1484	ng	98
42) 4-Chloroaniline	6.782	127	19585	9.3384	ng	91
43) Hexachlorobutadiene	6.841	225	13218	9.9421	ng	95
44) Caprolactam	7.033	113	8046	10.3463	ng	68
45) 4-Chloro-3-methylphenol	7.145	107	21207	10.0072	ng	80
46) 2-Methylnaphthalene	7.279	142	52017	10.3441	ng	99
47) 1-Methylnaphthalene	7.359	142	50510	10.4391	ng	96
48) Methylnaphthalenes (To...	7.279	142	101998m	20.6255	ng	
49) 1,1'-Biphenyl	7.648	154	62117	10.1289	ng	96
51) 1,2,4,5-Tetrachloroben...	7.413	216	25905	10.4062	ng	96
52) Hexachlorocyclopentadiene	7.407	237	11805	8.9606	ng	98
53) 2,4,6-Trichlorophenol	7.498	196	14283	9.6636	ng	99
54) 2,4,5-Trichlorophenol	7.530	196	15936	10.4974	ng	97
56) 2-Chloronaphthalene	7.669	162	48959	10.4440	ng	93
57) 1,4-Dimethylnaphthalene	7.952	156	39239	10.7859	ng	86
58) Dimethylnaphthalenes (...	7.952	156	39239	10.7859	ng	86
59) Diphenyl Ether	7.738	170	38360	10.9452	ng	75
60) 2-Nitroaniline	7.744	65	16656	10.3412	ng	75
61) Coumarin	7.931	146	19867	10.7834	ng	77
62) Acenaphthylene	8.027	152	75403	10.5600	ng	99
63) Dimethylphthalate	7.893	163	58805	10.8185	ng	99
64) 2,6-Dinitrotoluene	7.947	165	12667	10.7552	ng	66
65) Acenaphthene	8.182	153	50932	10.5412	ng	93

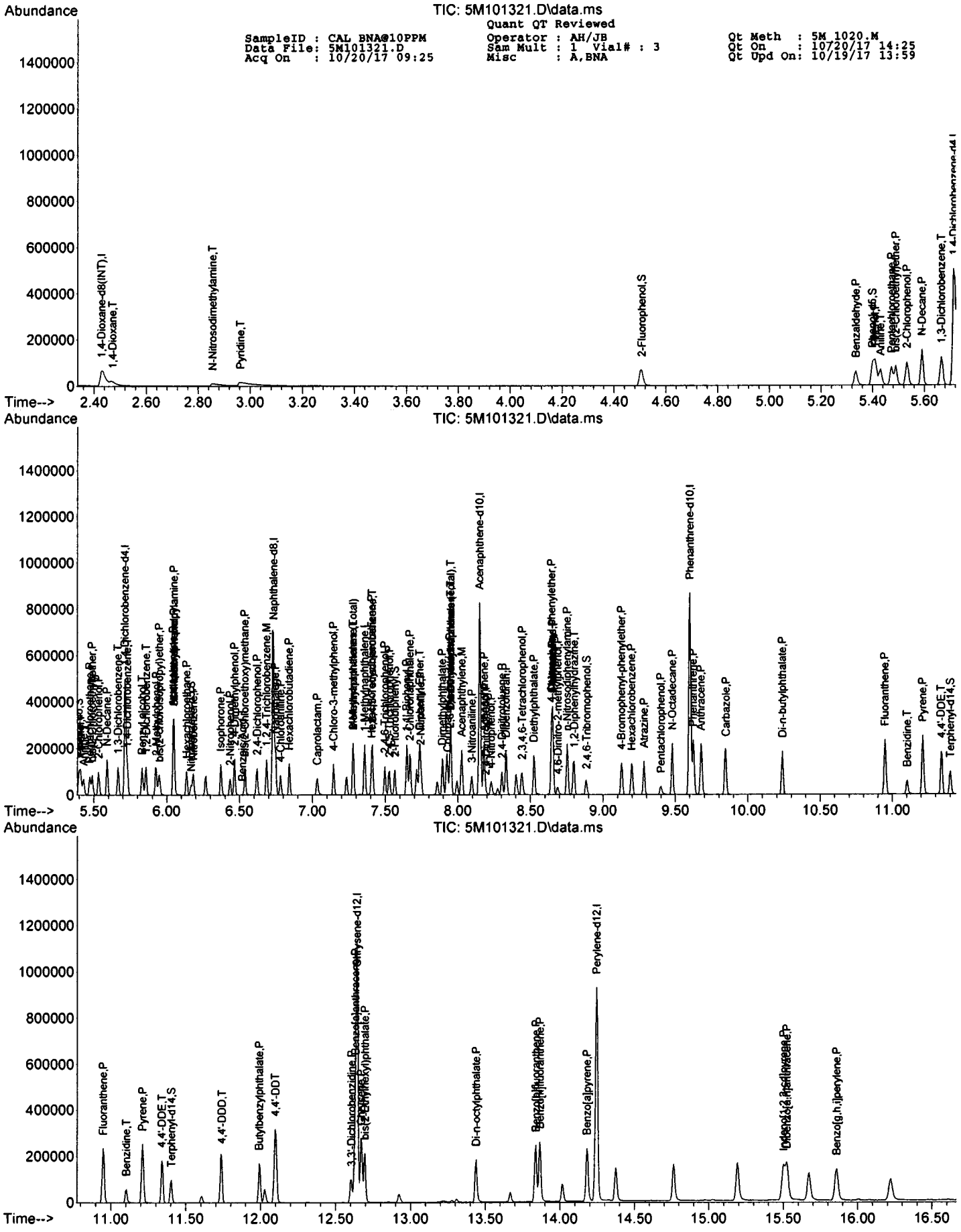
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@10PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101321.D Sam Mult : 1 Vial# : 3 Qt On : 10/20/17 14:25
Acq On : 10/20/17 09:25 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.096	138	12505	10.9270	ng	69
67)	2,4-Dinitrophenol	8.193	184	2511	4.1054	ng	39
68)	Dibenzofuran	8.331	168	72890	10.0951	ng	86
69)	2,4-Dinitrotoluene	8.305	165	16239	9.6117	ng	61
70)	4-Nitrophenol	8.230	65	9597	9.5726	ng	89
71)	2,3,4,6-Tetrachlorophenol	8.444	232	13816	9.6571	ng	82
72)	Fluorene	8.652	166	59402	10.6522	ng	98
73)	4-Chlorophenyl-phenyle...	8.647	204	30056	10.8113	ng	80
74)	Diethylphthalate	8.524	149	56771	10.4574	ng	98
75)	4-Nitroaniline	8.652	138	15356	9.9709	ng	70
76)	Atrazine	9.282	200	15151	9.6765	ng	92
78)	4,6-Dinitro-2-methylph...	8.689	198	5913	5.7434	ng	66
79)	n-Nitrosodiphenylamine	8.753	169	51921	10.1623	ng	98
81)	1,2-Diphenylhydrazine	8.802	77	56409	9.4165	ng	80
82)	4-Bromophenyl-phenylether	9.127	248	16944	9.7720	ng	83
83)	Hexachlorobenzene	9.197	284	18402	10.0716	ng	68
84)	N-Octadecane	9.480	57	36224	10.5073	ng	80
85)	Pentachlorophenol	9.400	266	6228	6.5046	ng	97
86)	Phenanthrene	9.624	178	92856	10.2374	ng	99
87)	Anthracene	9.678	178	93018	10.1968	ng	99
88)	Carbazole	9.849	167	87030	10.3487	ng	97
89)	Di-n-butylphthalate	10.239	149	92467	10.0444	ng	98
90)	Fluoranthene	10.949	202	104081	10.3961	ng	91
92)	Pyrene	11.211	202	110701	10.1381	ng	88
93)	Benzidine	11.104	184	25389	4.8078	ng	84
95)	4,4'-DDE	11.339	246	23139	10.1198	ng	94
96)	4,4'-DDD	11.740	235	43106	10.0426	ng	97
97)	Butylbenzylphthalate	11.991	149	41673	9.6470	ng	76
98)	4,4'-DDT	12.098	235	35063	9.4736	ng	97
99)	3,3'-Dichlorobenzidine	12.605	252	24947	9.2080	ng	96
100)	Benzo[a]anthracene	12.632	228	107540	9.8881	ng	99
101)	Chrysene	12.669	228	109254	10.3173	ng	100
102)	bis(2-Ethylhexyl)phtha...	12.696	149	60439	9.6917	ng	93
104)	Di-n-octylphthalate	13.439	149	96813	9.3358	ng	98
105)	Benzo[b]fluoranthene	13.839	252	101620m	9.6768	ng	
106)	Benzo[k]fluoranthene	13.866	252	110571m	10.6546	ng	
107)	Benzo[a]pyrene	14.181	252	99776	10.0954	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.501	276	107832	10.2752	ng	80
109)	Dibenzo[a,h]anthracene	15.522	278	92942	10.3372	ng	90
110)	Benzo[g,h,i]perylene	15.859	276	91735	9.9917	ng	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101321.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@10PPM
Data File: 5M101321.D
Acq On : 10/20/17 09:25
Operator : AH/JB
Sam Mult : 1 Vial# : 3
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:25
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101327.D Sam Mult : 1 Vial# : 9 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:57 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	36316	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	76446	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	320786	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	206107	40.00	ng	0.00
77) Phenanthrene-d10	9.598	188	381862	40.00	ng	0.00
91) Chrysene-d12	12.643	240	463803	40.00	ng	0.00
103) Perylene-d12	14.245	264	469140	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.501	112	46293	20.10	ng	0.00
Spiked Amount 100.000			Recovery = 20.10%			
16) Phenol-d5	5.399	99	63521	21.77	ng	0.00
Spiked Amount 100.000			Recovery = 21.77%			
32) Nitrobenzene-d5	6.168	128	12153	10.14	ng	0.00
Spiked Amount 50.000			Recovery = 20.28%			
55) 2-Fluorobiphenyl	7.562	172	64174	10.07	ng	0.00
Spiked Amount 50.000			Recovery = 20.14%			
80) 2,4,6-Tribromophenol	8.882	330	18347	20.74	ng	0.00
Spiked Amount 100.000			Recovery = 20.74%			
94) Terphenyl-d14	11.398	244	75122	10.22	ng	0.00
Spiked Amount 50.000			Recovery = 20.44%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.466	88	20276	22.1110	ng	94
9) Pyridine	2.925	79	54707	20.2128	ng	75
10) N-Nitrosodimethylamine	2.840	74	31677	21.4378	ng	72
12) Benzaldehyde	5.329	77	26789	22.7168	ng	78
13) Aniline	5.425	93	62983	19.9684	ng	46
14) Pentachloroethane	5.473	117	16213	21.5052	ng	77
15) bis(2-Chloroethyl)ether	5.489	93	50723	20.3336	ng	83
17) Phenol	5.409	94	73494	22.1420	ng	82
18) 2-Chlorophenol	5.532	128	54378	21.4759	ng	80
19) N-Decane	5.591	57	55691	21.9090	ng	86
20) 1,3-Dichlorobenzene	5.666	146	55619	21.0892	ng	95
22) 1,4-Dichlorobenzene	5.730	146	57856	20.3343	ng	97
23) 1,2-Dichlorobenzene	5.853	146	55804	20.6505	ng	95
24) Benzyl alcohol	5.831	108	36070	21.2311	ng	74
25) bis(2-chloroisopropyl)...	5.944	45	77969	20.8926	ng	97
26) 2-Methylphenol	5.922	108	50651	20.3496	ng	99
27) Acetophenone	6.045	105	81517	22.0081	ng	74
28) Hexachloroethane	6.136	117	21290	20.2119	ng	90
29) N-Nitroso-di-n-propyla...	6.045	70	40950	22.0739	ng	74
30) 3&4-Methylphenol	6.050	108	54355	21.4637	ng	97
33) Nitrobenzene	6.179	77	58559	21.2462	ng	85
34) Isophorone	6.371	82	106739	21.2442	ng	88
35) 2-Nitrophenol	6.435	139	28089	20.3839	ng	84
36) 2,4-Dimethylphenol	6.467	107	55754	20.5328	ng	93
37) Benzoic Acid	6.536	105	29378	14.9594	ng	86
38) bis(2-Chloroethoxy)met...	6.536	93	66956	20.9956	ng	97
39) 2,4-Dichlorophenol	6.617	162	46779	20.8947	ng	87
40) 1,2,4-Trichlorobenzene	6.686	180	51141	20.1274	ng	97
41) Naphthalene	6.745	128	167395m	21.7558	ng	
42) 4-Chloroaniline	6.782	127	54441m	23.3263	ng	
43) Hexachlorobutadiene	6.841	225	29950	20.2432	ng	98
44) Caprolactam	7.039	113	20133	23.2640	ng	70
45) 4-Chloro-3-methylphenol	7.146	107	49201	20.8632	ng	81
46) 2-Methylnaphthalene	7.279	142	115042	20.5578	ng	99
47) 1-Methylnaphthalene	7.359	142	111082	20.6301	ng	92
48) Methylnaphthalenes (To...	7.279	142	225929m	41.0541	ng	
49) 1,1'-Biphenyl	7.648	154	137455	20.1412	ng	95
51) 1,2,4,5-Tetrachloroben...	7.413	216	58067	20.2545	ng	98
52) Hexachlorocyclopentadiene	7.407	237	29156	19.2168	ng	99
53) 2,4,6-Trichlorophenol	7.498	196	35279	20.7262	ng	97
54) 2,4,5-Trichlorophenol	7.525	196	39157	22.3972	ng	99
56) 2-Chloronaphthalene	7.669	162	107747	19.9581	ng	91
57) 1,4-Dimethylnaphthalene	7.952	156	86993	20.7638	ng	85
58) Dimethylnaphthalenes (...	7.952	156	86993	20.7638	ng	85
59) Diphenyl Ether	7.733	170	82466	20.4316	ng	78
60) 2-Nitroaniline	7.744	65	38771	20.9021	ng	61
61) Coumarin	7.925	146	44208	20.8355	ng	75
62) Acenaphthylene	8.027	152	168230	20.4580	ng	99
63) Dimethylphthalate	7.893	163	129138	20.6295	ng	99
64) 2,6-Dinitrotoluene	7.947	165	29180	21.5137	ng	63
65) Acenaphthene	8.177	153	114144	20.5133	ng	95

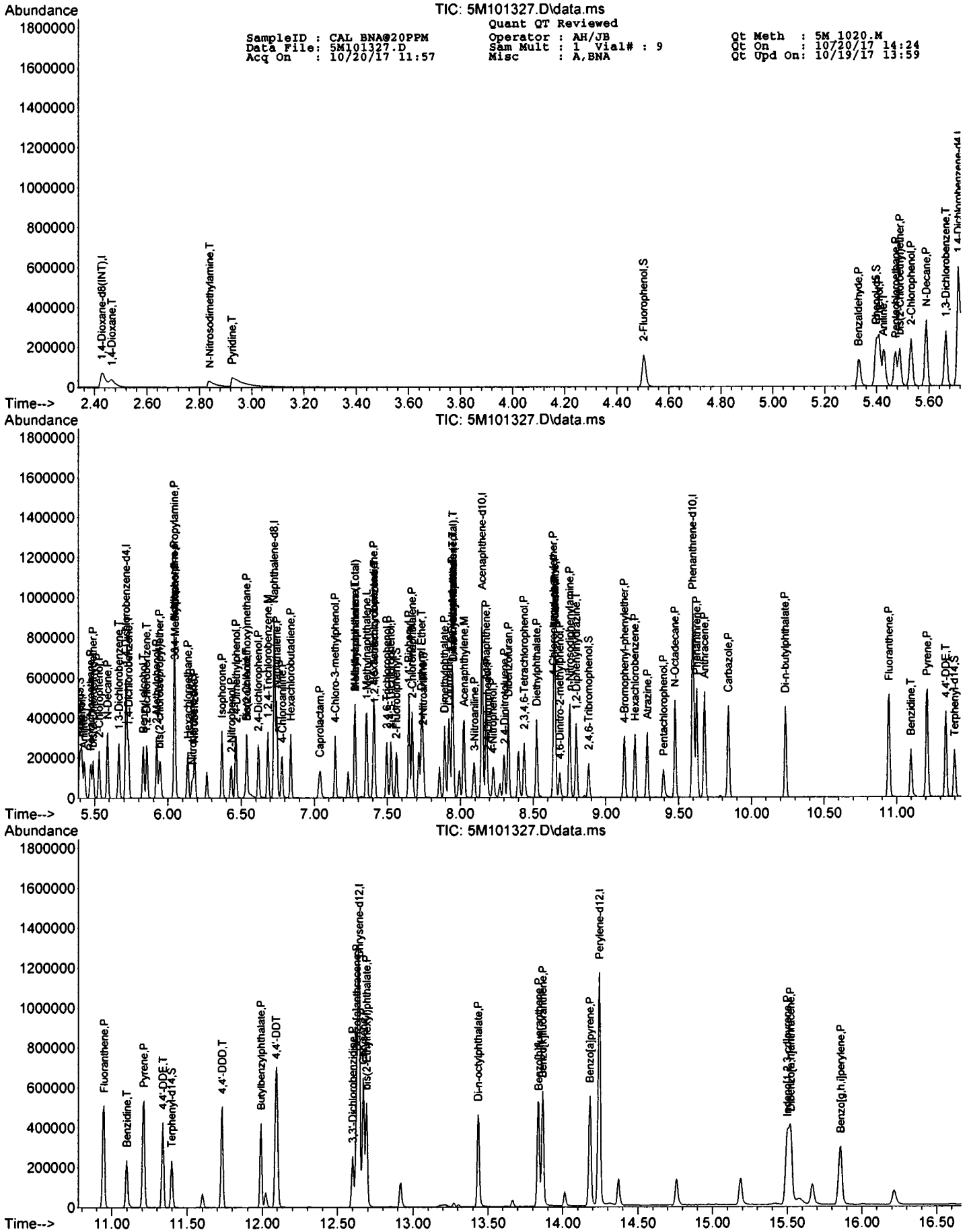
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@20PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101327.D Sam Mult : 1 Vial# : 9 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:57 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.096	138	28602	21.7018	ng	72
67)	2,4-Dinitrophenol	8.187	184	10530	14.5652	ng	44
68)	Dibenzofuran	8.331	168	160246	19.2714	ng	86
69)	2,4-Dinitrotoluene	8.305	165	40742	20.9395	ng	57
70)	4-Nitrophenol	8.225	65	23097	19.8818	ng	97
71)	2,3,4,6-Tetrachlorophenol	8.438	232	35013	21.2509	ng	81
72)	Fluorene	8.652	166	131245	20.4363	ng	100
73)	4-Chlorophenyl-phenyle...	8.641	204	65335	20.4068	ng	86
74)	Diethylphthalate	8.524	149	126837	20.2875	ng	97
75)	4-Nitroaniline	8.652	138	36296	20.4643	ng	73
76)	Atrazine	9.282	200	37196	20.6278	ng	96
78)	4,6-Dinitro-2-methylph...	8.684	198	18821	16.0662	ng	63
79)	n-Nitrosodiphenylamine	8.754	169	114719	20.0431	ng	99
81)	1,2-Diphenylhydrazine	8.796	77	129640	19.3178	ng	82
82)	4-Bromophenyl-phenylether	9.127	248	38681	19.9133	ng	82
83)	Hexachlorobenzene	9.197	284	41107	20.0830	ng	65
84)	N-Octadecane	9.475	57	83734	21.6808	ng	84
85)	Pentachlorophenol	9.395	266	19517	17.8572	ng	94
86)	Phenanthrene	9.624	178	209370	20.6051	ng	99
87)	Anthracene	9.678	178	212854	20.8285	ng	99
88)	Carbazole	9.843	167	195351	20.7353	ng	97
89)	Di-n-butylphthalate	10.233	149	223455	21.6675	ng	97
90)	Fluoranthene	10.949	202	232177	20.7012	ng	90
92)	Pyrene	11.211	202	249071	20.4853	ng	86
93)	Benzidine	11.099	184	94611	16.2371	ng	88
95)	4,4'-DDE	11.339	246	51663	20.2917	ng	96
96)	4,4'-DDD	11.735	235	99194	20.7543	ng	96
97)	Butylbenzylphthalate	11.991	149	103039	21.1638	ng	70
98)	4,4'-DDT	12.092	235	82318	19.9744	ng	99
99)	3,3'-Dichlorobenzidine	12.600	252	58951	19.5367	ng	96
100)	Benzo[a]anthracene	12.627	228	248606	20.5289	ng	100
101)	Chrysene	12.669	228	240948	20.4345	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.691	149	148388	21.3695	ng	95
104)	Di-n-octylphthalate	13.433	149	254137	20.3432	ng	99
105)	Benzo[b]fluoranthene	13.839	252	251031	19.8432	ng	93
106)	Benzo[k]fluoranthene	13.866	252	246722	19.7350	ng	93
107)	Benzo[a]pyrene	14.181	252	246721	20.7222	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.501	276	253880	20.0819	ng	82
109)	Dibenzo[a,h]anthracene	15.522	278	219992	20.3110	ng	89
110)	Benzo[g,h,i]perylene	15.859	276	194732	17.6065	ng	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 5M101327.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@20PPM
Data File: 5M101327.D
Acq On : 10/20/17 11:57
Operator : AH/JB
Sam Mult : 1 Vial# : 9
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:24
Qt Upd On: 10/19/17 13:59
Abundance
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101326.D Sam Mult : 1 Vial# : 8 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:34 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	35532	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	74916	40.00	ng	0.00
31) Naphthalene-d8	6.734	136	344094	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	222542	40.00	ng	0.00
77) Phenanthrene-d10	9.603	188	372915	40.00	ng	0.00
91) Chrysene-d12	12.648	240	448310	40.00	ng	0.00
103) Perylene-d12	14.245	264	425587	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.501	112	184264	81.79	ng	0.00
Spiked Amount 100.000			Recovery = 81.79%			
16) Phenol-d5	5.404	99	243258	85.19	ng	0.00
Spiked Amount 100.000			Recovery = 85.19%			
32) Nitrobenzene-d5	6.168	128	49827	38.75	ng	0.00
Spiked Amount 50.000			Recovery = 77.50%			
55) 2-Fluorobiphenyl	7.567	172	260122	37.82	ng	0.00
Spiked Amount 50.000			Recovery = 75.64%			
80) 2,4,6-Tribromophenol	8.887	330	79119	91.58	ng	0.00
Spiked Amount 100.000			Recovery = 91.58%			
94) Terphenyl-d14	11.403	244	281341	39.62	ng	0.00
Spiked Amount 50.000			Recovery = 79.24%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.460	88	76350	82.4387	ng	92
9) Pyridine	2.893	79	222676	84.0882	ng	74
10) N-Nitrosodimethylamine	2.824	74	122667	84.8483	ng	77
12) Benzaldehyde	5.334	77	86834	75.2591	ng	75
13) Aniline	5.431	93	292597	88.0363	ng	47
14) Pentachloroethane	5.473	117	62385	84.5744	ng	78
15) bis(2-Chloroethyl)ether	5.489	93	194750	79.7931	ng	83
17) Phenol	5.414	94	280385	86.3373	ng	84
18) 2-Chlorophenol	5.537	128	208525	84.1716	ng	78
19) N-Decane	5.591	57	202869	81.5703	ng	87
20) 1,3-Dichlorobenzene	5.666	146	212074	82.1868	ng	97
22) 1,4-Dichlorobenzene	5.730	146	216062	77.4887	ng	98
23) 1,2-Dichlorobenzene	5.858	146	209989	79.2941	ng	97
24) Benzyl alcohol	5.831	108	139968	84.0688	ng	76
25) bis(2-chloroisopropyl)...	5.949	45	291448	79.6914	ng	96
26) 2-Methylphenol	5.927	108	196035	80.3676	ng	98
27) Acetophenone	6.050	105	296862	81.7842	ng	72
28) Hexachloroethane	6.136	117	83351	80.7464	ng	90
29) N-Nitroso-di-n-propyla...	6.050	70	151547	83.3592	ng	70
30) 3&4-Methylphenol	6.056	108	197763	79.6876	ng	99
33) Nitrobenzene	6.184	77	218105	73.7719	ng	80
34) Isophorone	6.376	82	408784	75.8490	ng	86
35) 2-Nitrophenol	6.435	139	117427	79.4433	ng	87
36) 2,4-Dimethylphenol	6.467	107	213916	73.4435	ng	96
37) Benzoic Acid	6.579	105	222371	82.2259	ng	88
38) bis(2-Chloroethoxy)met...	6.542	93	249645	72.9794	ng	96
39) 2,4-Dichlorophenol	6.622	162	192906	80.3284	ng	88
40) 1,2,4-Trichlorobenzene	6.686	180	211958	77.7689	ng	97
41) Naphthalene	6.750	128	669528m	80.9229	ng	
42) 4-Chloroaniline	6.782	127	252381m	100.8127	ng	
43) Hexachlorobutadiene	6.841	225	120861	76.1566	ng	96
44) Caprolactam	7.071	113	88718	95.5711	ng	71
45) 4-Chloro-3-methylphenol	7.151	107	205812	81.3610	ng	80
46) 2-Methylnaphthalene	7.279	142	466265	77.6768	ng	98
47) 1-Methylnaphthalene	7.359	142	446213	77.2572	ng	92
48) Methylnaphthalenes (To...	7.279	142	915243m	155.0454	ng	
49) 1,1'-Biphenyl	7.648	154	560742	76.5996	ng	96
51) 1,2,4,5-Tetrachloroben...	7.412	216	237377	76.6851	ng	98
52) Hexachlorocyclopentadiene	7.407	237	134995	82.4047	ng	99
53) 2,4,6-Trichlorophenol	7.498	196	144840	78.8084	ng	98
54) 2,4,5-Trichlorophenol	7.530	196	159634	84.5648	ng	99
56) 2-Chloronaphthalene	7.674	162	448071	76.8675	ng	90
57) 1,4-Dimethylnaphthalene	7.957	156	346447	76.5843	ng	86
58) Dimethylnaphthalenes (...	7.957	156	346447	76.5843	ng	86
59) Diphenyl Ether	7.738	170	329128	75.5219	ng	77
60) 2-Nitroaniline	7.749	65	164851	82.3103	ng	56
61) Coumarin	7.936	146	183228	79.9791	ng	77
62) Acenaphthylene	8.032	152	684487	77.0913	ng	100
63) Dimethylphthalate	7.904	163	521845	77.2071	ng	99
64) 2,6-Dinitrotoluene	7.952	165	119191	81.3867	ng	66
65) Acenaphthene	8.182	153	460295	76.6124	ng	95

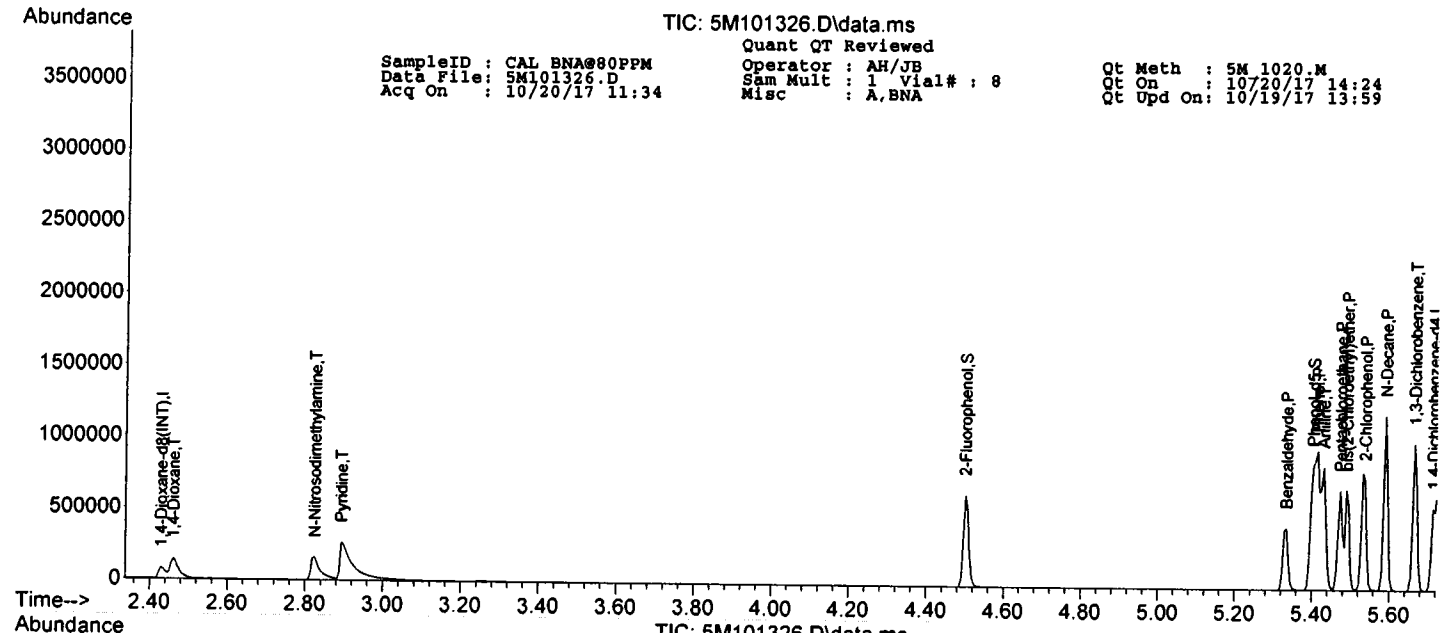
Quantitation Report (QT Reviewed)

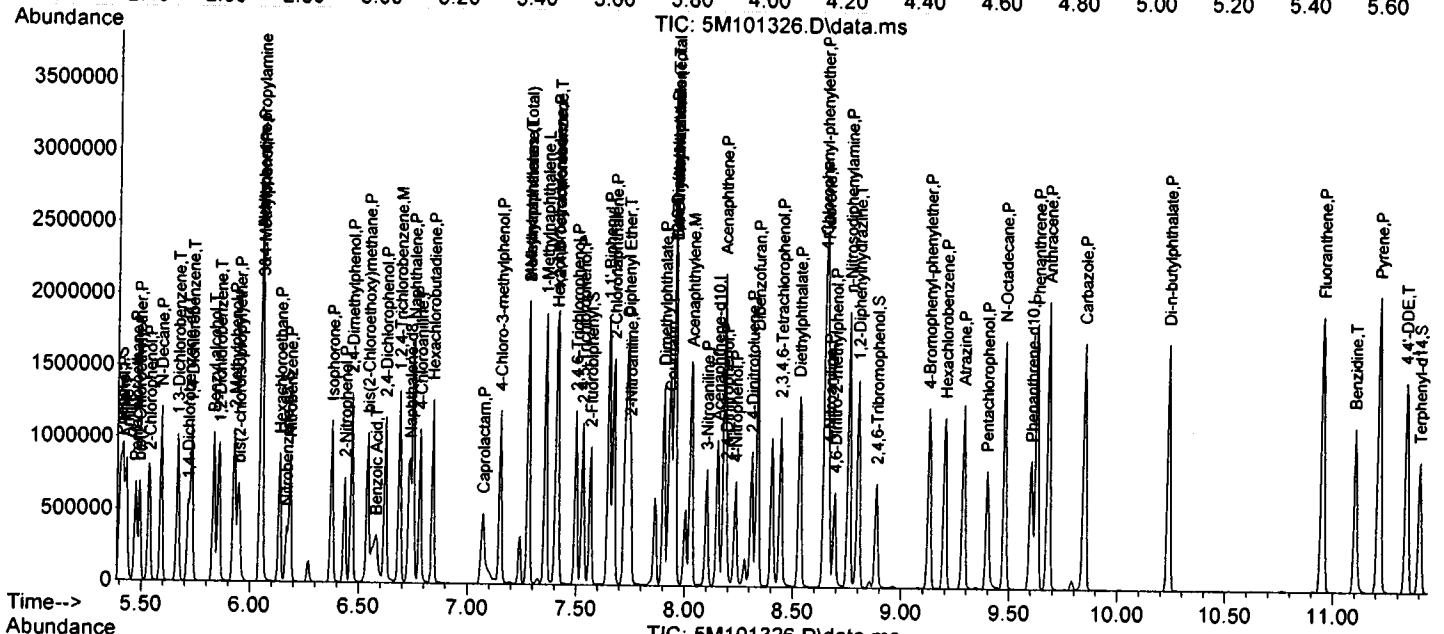
SampleID : CAL BNA@80PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101326.D Sam Mult : 1 Vial# : 8 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:34 Misc : A,BNA Qt Upd On: 10/19/17 13:59

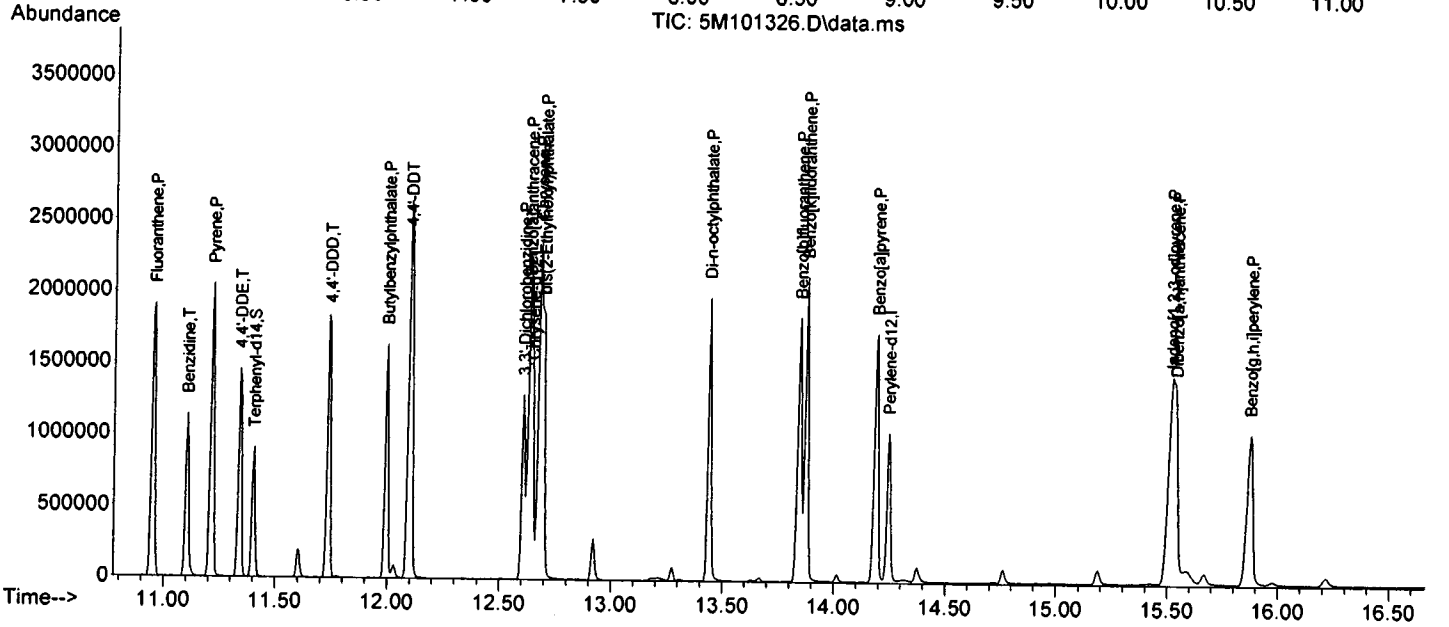
Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.102	138	127461	89.5688	ng	74
67)	2,4-Dinitrophenol	8.192	184	74475	81.8679	ng	35
68)	Dibenzofuran	8.337	168	648020	72.1764	ng	85
69)	2,4-Dinitrotoluene	8.310	165	171877	81.8131	ng	62
70)	4-Nitrophenol	8.235	65	100423	77.4076	ng	86
71)	2,3,4,6-Tetrachlorophenol	8.444	232	143845	80.8582	ng	83
72)	Fluorene	8.657	166	526476	75.9239	ng	98
73)	4-Chlorophenyl-phenyle...	8.647	204	260422	75.3332	ng	83
74)	Diethylphthalate	8.529	149	531207	78.6912	ng	97
75)	4-Nitroaniline	8.668	138	159657	83.3693	ng	73
76)	Atrazine	9.288	200	160171	82.2664	ng	97
78)	4,6-Dinitro-2-methylph...	8.695	198	106140	84.1853	ng	73
79)	n-Nitrosodiphenylamine	8.759	169	472120	84.4655	ng	99
81)	1,2-Diphenylhydrazine	8.801	77	528375	80.6227	ng	81
82)	4-Bromophenyl-phenylether	9.127	248	159352	84.0041	ng	86
83)	Hexachlorobenzene	9.202	284	165025	82.5581	ng	64
84)	N-Octadecane	9.480	57	310005	82.1938	ng	80
85)	Pentachlorophenol	9.394	266	104701	87.9860	ng	98
86)	Phenanthrene	9.630	178	763210	76.9133	ng	100
87)	Anthracene	9.683	178	793465	79.5061	ng	99
88)	Carbazole	9.849	167	736935	80.0978	ng	98
89)	Di-n-butylphthalate	10.239	149	889019	88.2725	ng	96
90)	Fluoranthene	10.954	202	896721	81.8711	ng	89
92)	Pyrene	11.216	202	941899	80.1456	ng	87
93)	Benzidine	11.104	184	452584	85.0426	ng	87
95)	4,4'-DDE	11.339	246	200558	81.4956	ng	95
96)	4,4'-DDD	11.740	235	393423	85.1604	ng	96
97)	Butylbenzylphthalate	11.996	149	420185	83.7999	ng	70
98)	4,4'-DDT	12.098	235	332998	83.5942	ng	99
99)	3,3'-Dichlorobenzidine	12.605	252	291313	99.7009	ng	96
100)	Benzo[a]anthracene	12.632	228	926518	79.1524	ng	100
101)	Chrysene	12.680	228	891361	78.2077	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.696	149	582264	86.7501	ng	94
104)	Di-n-octylphthalate	13.439	149	1018920	89.9094	ng	100
105)	Benzo[b]fluoranthene	13.845	252	915338m	79.7591	ng	
106)	Benzo[k]fluoranthene	13.877	252	854800	75.3716	ng	92
107)	Benzo[a]pyrene	14.192	252	859763	79.6017	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.517	276	890996	77.6902	ng	84
109)	Dibenzo[a,h]anthracene	15.538	278	772480	78.6187	ng	87
110)	Benzo[g,h,i]perylene	15.875	276	739041	73.6579	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101326.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@80PPM
Data File: 5M101326.D
Acq On : 10/20/17 11:34
Operator : AH/JB
Sam Mult : 1 Vial# : 8
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:24
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->


Abundance
TIC: 5M101326.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dichlorophenol,P
Benzoic Acid,P
Hexachlorobutadiene,P
Acenaphthene,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Phenanthrene-d10,I
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
4,4'-DDE,T
Time-->


Abundance
TIC: 5M101326.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(b)fluoranthene,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101325.D Sam Mult : 1 Vial# : 7 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:12 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	36545	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	77243	40.00	ng	0.00
31) Naphthalene-d8	6.734	136	307881	40.00	ng	0.00
50) Acenaphthene-d10	8.155	164	201651	40.00	ng	0.00
77) Phenanthrene-d10	9.603	188	380998	40.00	ng	0.00
91) Chrysene-d12	12.648	240	434740	40.00	ng	0.00
103) Perylene-d12	14.251	264	400127	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.501	112	316744	136.69	ng	0.00
Spiked Amount 100.000			Recovery = 136.69%			
16) Phenol-d5	5.404	99	373068	127.03	ng	0.00
Spiked Amount 100.000			Recovery = 127.03%			
32) Nitrobenzene-d5	6.173	128	76568	66.55	ng	0.00
Spiked Amount 50.000			Recovery = 133.10%			
55) 2-Fluorobiphenyl	7.567	172	373109	59.87	ng	0.00
Spiked Amount 50.000			Recovery = 119.74%			
80) 2,4,6-Tribromophenol	8.887	330	110731	125.46	ng	0.00
Spiked Amount 100.000			Recovery = 125.46%			
94) Terphenyl-d14	11.403	244	426203	61.89	ng	0.00
Spiked Amount 50.000			Recovery = 123.78%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.460	88	120074	123.4353	ng	93
9) Pyridine	2.888	79	359671	132.0561	ng	73
10) N-Nitrosodimethylamine	2.824	74	193263	129.9738	ng	76
12) Benzaldehyde	5.334	77	98139	82.6994	ng	78
13) Aniline	5.431	93	460710	129.1924	ng	48
14) Pentachloroethane	5.473	117	95485	125.8594	ng	77
15) bis(2-Chloroethyl)ether	5.495	93	300162	119.5736	ng	81
17) Phenol	5.420	94	424126	126.9785	ng	91
18) 2-Chlorophenol	5.537	128	324721	127.4411	ng	80
19) N-Decane	5.591	57	302002	118.0641	ng	86
20) 1,3-Dichlorobenzene	5.666	146	323839	122.0212	ng	98
22) 1,4-Dichlorobenzene	5.730	146	337803	117.5003	ng	97
23) 1,2-Dichlorobenzene	5.858	146	313047	114.6488	ng	97
24) Benzyl alcohol	5.837	108	216063	125.8642	ng	73
25) bis(2-chloroisopropyl)...	5.949	45	430454	114.1544	ng	98
26) 2-Methylphenol	5.927	108	294975	117.2866	ng	97
27) Acetophenone	6.050	105	438309	117.1145	ng	69
28) Hexachloroethane	6.136	117	126852	119.1860	ng	88
29) N-Nitroso-di-n-propyla...	6.056	70	216327	115.4071	ng	67
30) 3&4-Methylphenol	6.056	108	290183	113.4052	ng	96
33) Nitrobenzene	6.184	77	334135	126.3111	ng	82
34) Isophorone	6.376	82	608672	126.2215	ng	89
35) 2-Nitrophenol	6.435	139	176432	133.4016	ng	89
36) 2,4-Dimethylphenol	6.472	107	329600	126.4711	ng	93
37) Benzoic Acid	6.600	105	379492	134.0181	ng	89
38) bis(2-Chloroethoxy)met...	6.542	93	375979	122.8386	ng	98
39) 2,4-Dichlorophenol	6.622	162	274488	127.7441	ng	89
40) 1,2,4-Trichlorobenzene	6.686	180	294883	120.9205	ng	98
41) Naphthalene	6.750	128	955963	128.8766	ng	99
42) 4-Chloroaniline	6.782	127	316641m	141.3579	ng	
43) Hexachlorobutadiene	6.841	225	174351	122.7836	ng	96
44) Caprolactam	7.081	113	114856	138.2810	ng	71
45) 4-Chloro-3-methylphenol	7.156	107	293234	129.5549	ng	78
46) 2-Methylnaphthalene	7.279	142	644160	119.9351	ng	99
47) 1-Methylnaphthalene	7.359	142	630554	122.0150	ng	92
48) Methylnaphthalenes (To...	7.359	142	1268294m	240.1246	ng	
49) 1,1'-Biphenyl	7.653	154	780201	119.1143	ng	95
51) 1,2,4,5-Tetrachloroben...	7.418	216	336595	120.0029	ng	97
52) Hexachlorocyclopentadiene	7.407	237	195589	131.7620	ng	100
53) 2,4,6-Trichlorophenol	7.498	196	212705	127.7243	ng	96
54) 2,4,5-Trichlorophenol	7.535	196	223397	130.6031	ng	98
56) 2-Chloronaphthalene	7.674	162	619840	117.3511	ng	92
57) 1,4-Dimethylnaphthalene	7.957	156	472650	115.3066	ng	91
58) Dimethylnaphthalenes (...	7.957	156	472650	115.3066	ng	91
59) Diphenyl Ether	7.738	170	469220	118.8218	ng	77
60) 2-Nitroaniline	7.754	65	235016	129.5006	ng	49
61) Coumarin	7.941	146	256401	123.5140	ng	77
62) Acenaphthylene	8.032	152	950205	118.1052	ng	99
63) Dimethylphthalate	7.909	163	741363	121.0481	ng	99
64) 2,6-Dinitrotoluene	7.957	165	163415	123.1441	ng	63
65) Acenaphthene	8.182	153	635853	116.7968	ng	94

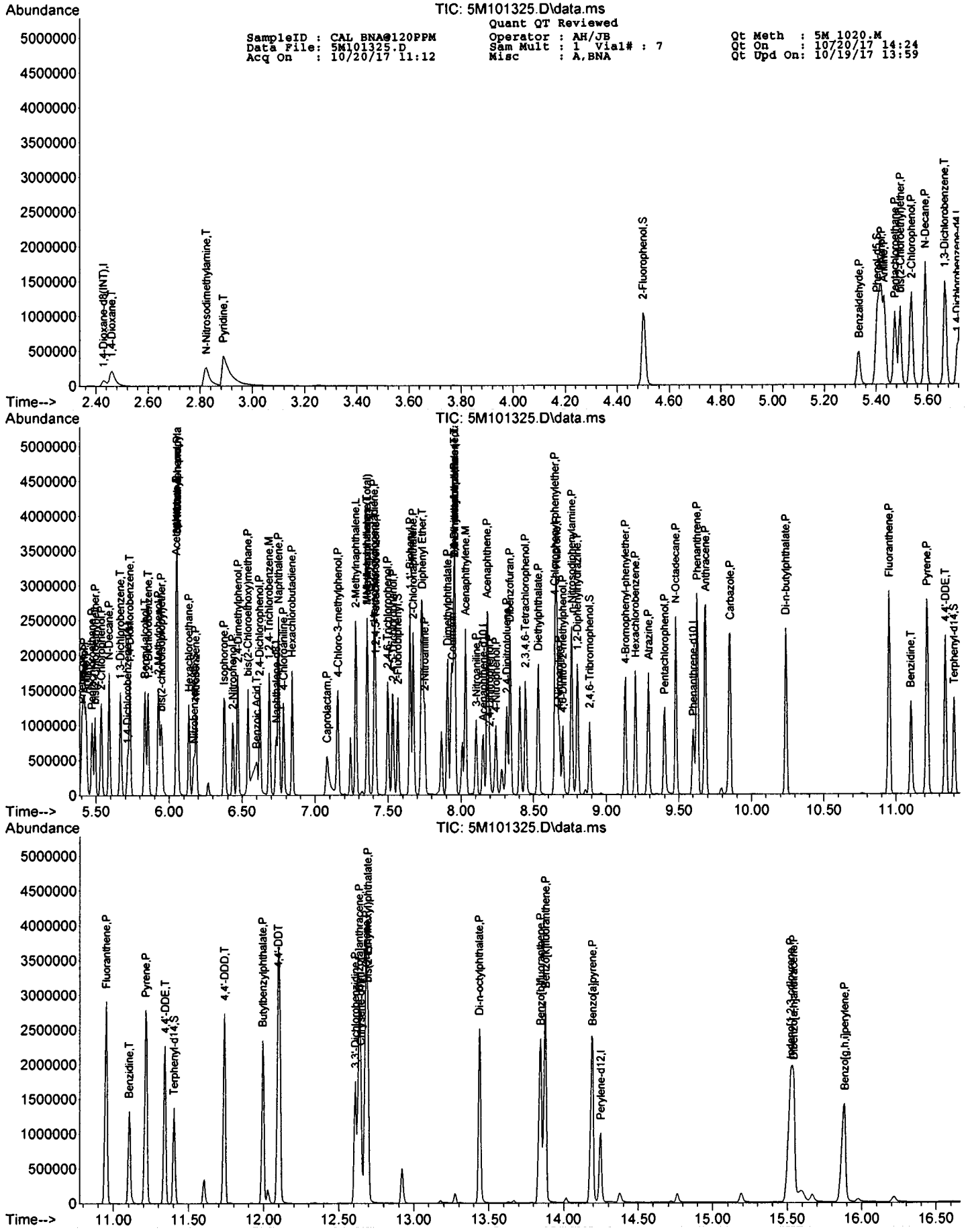
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@120PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101325.D Sam Mult : 1 Vial# : 7 Qt On : 10/20/17 14:24
Acq On : 10/20/17 11:12 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) 3-Nitroaniline	8.107	138	174551	135.3672	ng	76
67) 2,4-Dinitrophenol	8.198	184	110865	123.6151	ng	32
68) Dibenzofuran	8.337	168	903655	111.0762	ng	88
69) 2,4-Dinitrotoluene	8.315	165	243622	127.9774	ng	60
70) 4-Nitrophenol	8.241	65	144424	119.9215	ng	88
71) 2,3,4,6-Tetrachlorophenol	8.444	232	208000	129.0341	ng	82
72) Fluorene	8.657	166	737226	117.3308	ng	100
73) 4-Chlorophenyl-phenyle...	8.647	204	368618	117.6784	ng	84
74) Diethylphthalate	8.534	149	756449	123.6670	ng	97
75) 4-Nitroaniline	8.673	138	223871	129.0112	ng	77
76) Atrazine	9.293	200	221185	125.3735	ng	97
78) 4,6-Dinitro-2-methylph...	8.700	198	158398	117.6212	ng	71
79) n-Nitrosodiphenylamine	8.764	169	661320	115.8046	ng	99
81) 1,2-Diphenylhydrazine	8.801	77	787355	117.5907	ng	82
82) 4-Bromophenyl-phenylether	9.133	248	227440	117.3537	ng	79
83) Hexachlorobenzene	9.202	284	225772	110.5522	ng	69
84) N-Octadecane	9.480	57	446480	115.8670	ng	77
85) Pentachlorophenol	9.400	266	157273	123.0263	ng	97
86) Phenanthrene	9.630	178	1179351	116.3289	ng	99
87) Anthracene	9.688	178	1219969	119.6489	ng	100
88) Carbazole	9.854	167	1107752	117.8477	ng	97
89) Di-n-butylphthalate	10.239	149	1294929	125.8484	ng	98
90) Fluoranthene	10.954	202	1302819	116.4245	ng	92
92) Pyrene	11.216	202	1402022	123.0209	ng	89
93) Benzidine	11.104	184	553506	109.5254	ng	88
95) 4,4'-DDE	11.344	246	300116	125.7570	ng	95
96) 4,4'-DDD	11.740	235	561769	125.3962	ng	96
97) Butylbenzylphthalate	11.996	149	610130	121.0552	ng	75
98) 4,4'-DDT	12.098	235	495405	128.2459	ng	99
99) 3,3'-Dichlorobenzidine	12.611	252	390944	137.8584	ng	96
100) Benzo[a]anthracene	12.637	228	1346322	118.6063	ng	99
101) Chrysene	12.685	228	1291842	116.8838	ng	99
102) bis(2-Ethylhexyl)phtha...	12.696	149	871675	133.9225	ng	93
104) Di-n-octylphthalate	13.439	149	1450177	136.1058	ng	100
105) Benzo[b]fluoranthene	13.850	252	1252331	116.0669	ng	93
106) Benzo[k]fluoranthene	13.882	252	1270985m	119.1995	ng	
107) Benzo[a]pyrene	14.197	252	1224213	120.5567	ng	90
108) Indeno[1,2,3-cd]pyrene	15.522	276	1249596	115.8913	ng	84
109) Dibenzo[a,h]anthracene	15.543	278	1081688	117.0931	ng	88
110) Benzo[g,h,i]perylene	15.885	276	1053224	111.6508	ng	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101325.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@120PPM
Data File: 5M101325.D
Acq On : 10/20/17 11:12
Operator : AH/JB
Sam Mult : 1 Vial# : 7
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:24
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->

SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101324.D Sam Mult : 1 Vial# : 6 Qt On : 10/20/17 14:23
Acq On : 10/20/17 10:49 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	36817	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.719	152	75426	40.00	ng	0.00
31) Naphthalene-d8	6.734	136	336425	40.00	ng	0.00
50) Acenaphthene-d10	8.155	164	199804	40.00	ng	0.00
77) Phenanthrene-d10	9.603	188	362989	40.00	ng	0.00
91) Chrysene-d12	12.653	240	423719	40.00	ng	0.01
103) Perylene-d12	14.251	264	419436	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	372490	159.56	ng	0.00
Spiked Amount 100.000			Recovery = 159.56%			
16) Phenol-d5	5.409	99	476432	161.03	ng	0.01
Spiked Amount 100.000			Recovery = 161.03%			
32) Nitrobenzene-d5	6.173	128	106547	84.75	ng	0.00
Spiked Amount 50.000			Recovery = 169.50%			
55) 2-Fluorobiphenyl	7.568	172	481923	78.04	ng	0.00
Spiked Amount 50.000			Recovery = 156.08%			
80) 2,4,6-Tribromophenol	8.892	330	137703	163.75	ng	0.01
Spiked Amount 100.000			Recovery = 163.75%			
94) Terphenyl-d14	11.403	244	536991	80.00	ng	0.00
Spiked Amount 50.000			Recovery = 160.00%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.460	88	153963	154.6553	ng	94
9) Pyridine	2.888	79	454151	165.5133	ng	73
10) N-Nitrosodimethylamine	2.824	74	248097	165.6183	ng	76
12) Benzaldehyde	5.334	77	91411	76.4608	ng	75
13) Aniline	5.436	93	591202	159.6631	ng	48
14) Pentachloroethane	5.473	117	124186	162.4810	ng	79
15) bis(2-Chloroethyl)ether	5.495	93	381106	150.6971	ng	83
17) Phenol	5.420	94	541386	160.8874	ng	91
18) 2-Chlorophenol	5.537	128	417303	162.5661	ng	82
19) N-Decane	5.591	57	383154	148.6829	ng	86
20) 1,3-Dichlorobenzene	5.671	146	414673	155.0927	ng	97
22) 1,4-Dichlorobenzene	5.730	146	420302	149.7183	ng	98
23) 1,2-Dichlorobenzene	5.858	146	409097	153.4349	ng	98
24) Benzyl alcohol	5.837	108	275658	164.4487	ng	76
25) bis(2-chloroisopropyl)...	5.949	45	552429	150.0308	ng	99
26) 2-Methylphenol	5.933	108	373870	152.2375	ng	98
27) Acetophenone	6.056	105	543709	148.7766	ng	71
28) Hexachloroethane	6.136	117	176523	169.8506	ng	87
29) N-Nitroso-di-n-propyla...	6.061	70	267660	146.2323	ng	66
30) 3&4-Methylphenol	6.061	108	360719	144.3670	ng	99
33) Nitrobenzene	6.189	77	457559	158.2929	ng	78
34) Isophorone	6.382	82	859485	163.1109	ng	86
35) 2-Nitrophenol	6.440	139	248310	171.8195	ng	82
36) 2,4-Dimethylphenol	6.472	107	454484	159.5943	ng	96
37) Benzoic Acid	6.617	105	539172	161.6891	ng	86
38) bis(2-Chloroethoxy)met...	6.547	93	517012	154.5848	ng	96
39) 2,4-Dichlorophenol	6.627	162	378852	161.3548	ng	87
40) 1,2,4-Trichlorobenzene	6.691	180	396270	148.7086	ng	97
41) Naphthalene	6.750	128	1276264	157.2742	ng	99
42) 4-Chloroaniline	6.782	127	378229m	154.5263	ng	
43) Hexachlorobutadiene	6.841	225	241127	155.4019	ng	96
44) Caprolactam	7.092	113	142539	157.0497	ng	69
45) 4-Chloro-3-methylphenol	7.156	107	399355	161.4705	ng	81
46) 2-Methylnaphthalene	7.284	142	882261	150.3295	ng	99
47) 1-Methylnaphthalene	7.359	142	850605	150.6307	ng	93
48) Methylnaphthalenes (To...	7.284	142	1722895m	298.5177	ng	
49) 1,1'-Biphenyl	7.653	154	961203	134.2972	ng	95
51) 1,2,4,5-Tetrachloroben...	7.418	216	452561	162.8386	ng	98
52) Hexachlorocyclopentadiene	7.407	237	270562	183.9538	ng	100
53) 2,4,6-Trichlorophenol	7.503	196	284740	172.5601	ng	97
54) 2,4,5-Trichlorophenol	7.535	196	307539	181.4565	ng	100
56) 2-Chloronaphthalene	7.674	162	767362	146.6236	ng	93
57) 1,4-Dimethylnaphthalene	7.958	156	590001	145.2658	ng	90
58) Dimethylnaphthalenes (...	7.958	156	590001	145.2658	ng	90
59) Diphenyl Ether	7.738	170	563247	143.9510	ng	77
60) 2-Nitroaniline	7.755	65	283887	157.8760	ng	57
61) Coumarin	7.947	146	310202	150.8125	ng	76
62) Acenaphthylene	8.032	152	1180682	148.1088	ng	99
63) Dimethylphthalate	7.915	163	916561	151.0375	ng	99
64) 2,6-Dinitrotoluene	7.963	165	200641	152.5940	ng	59
65) Acenaphthene	8.187	153	791225	146.6799	ng	96

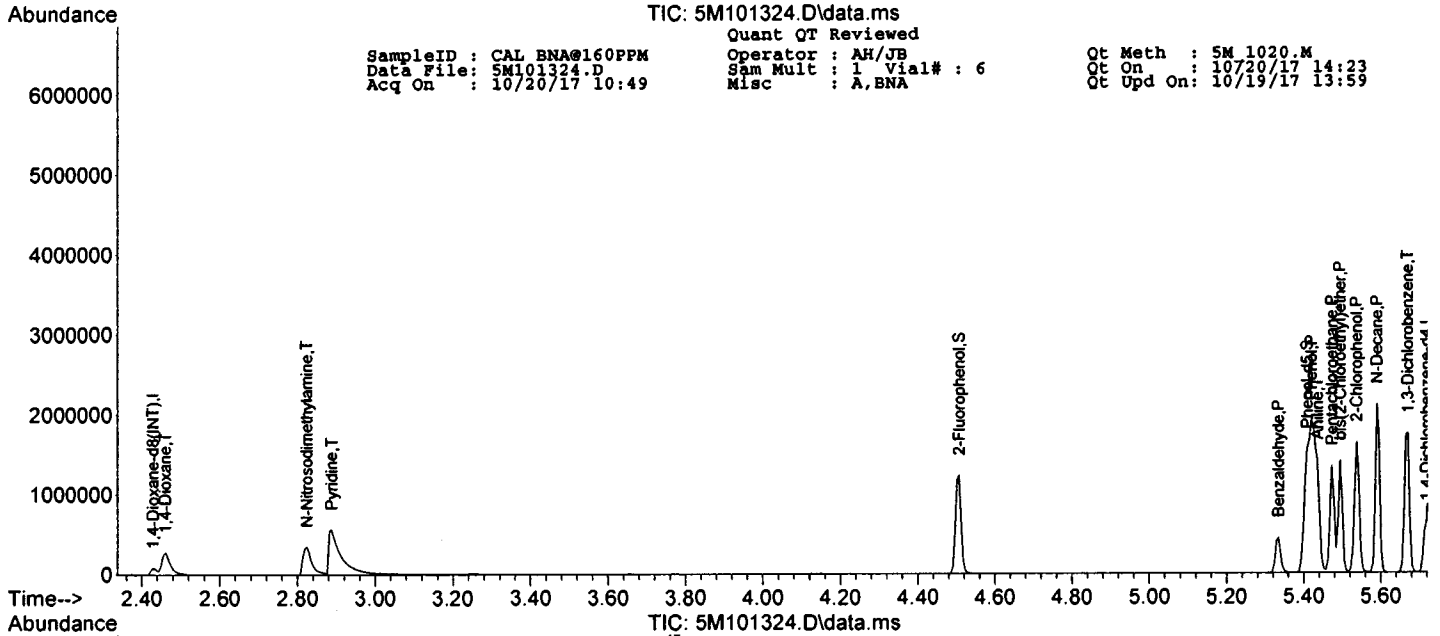
Quantitation Report (QT Reviewed)

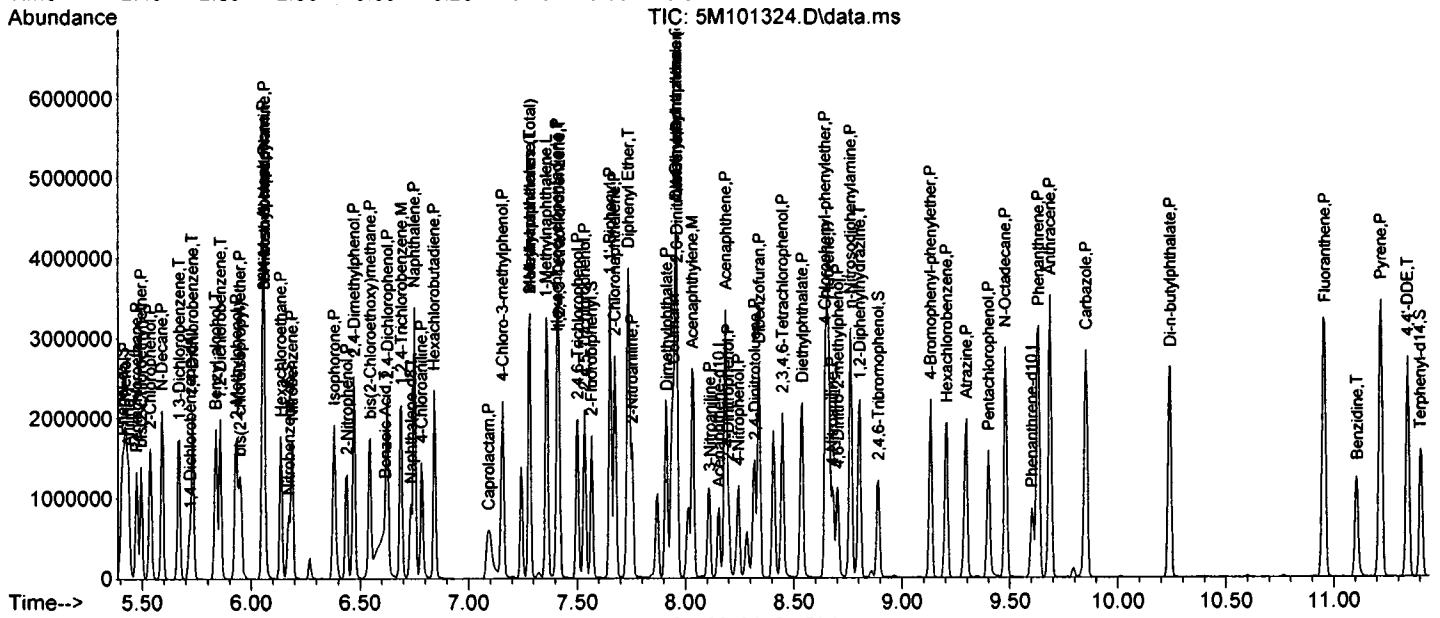
SampleID : CAL BNA@160PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101324.D Sam Mult : 1 Vial# : 6 Qt On : 10/20/17 14:23
Acq On : 10/20/17 10:49 Misc : A,BNA Qt Upd On: 10/19/17 13:59

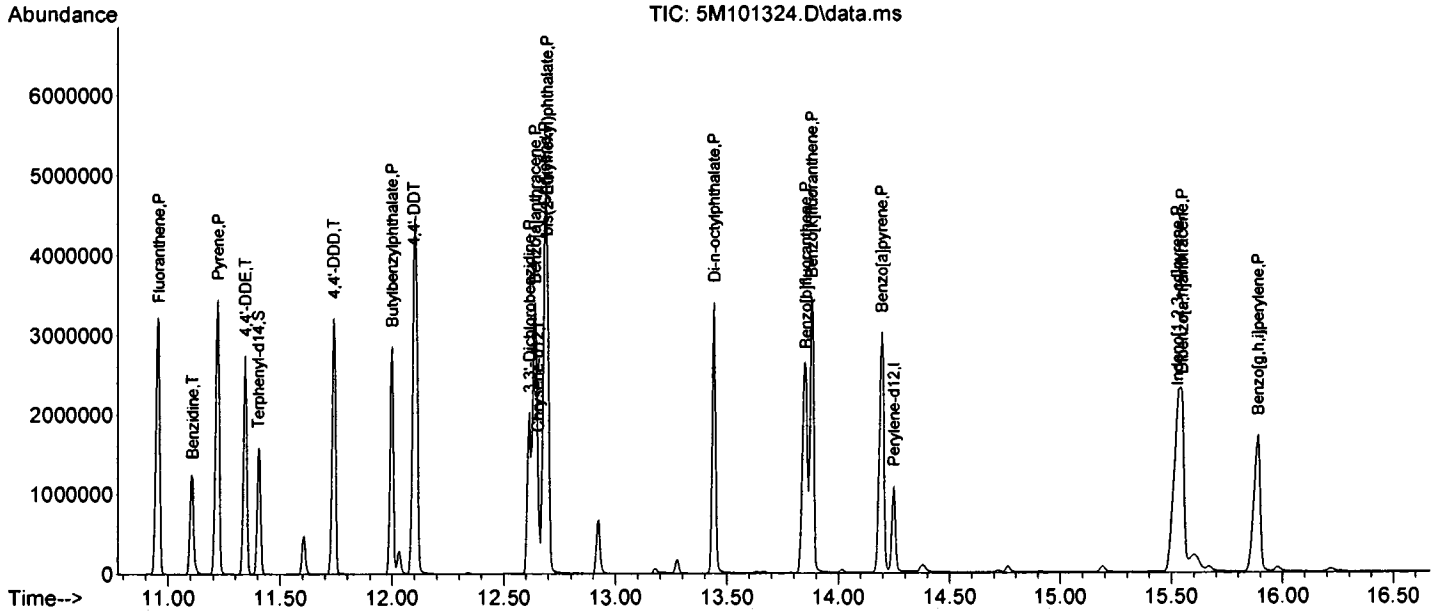
Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.112	138	198701	155.5204	ng	73
67)	2,4-Dinitrophenol	8.198	184	145347	154.3630	ng	39
68)	Dibenzofuran	8.342	168	1131806	140.4062	ng	87
69)	2,4-Dinitrotoluene	8.321	165	305926	162.1919	ng	57
70)	4-Nitrophenol	8.246	65	190051	156.0926	ng	88
71)	2,3,4,6-Tetrachlorophenol	8.449	232	253616	158.7866	ng	83
72)	Fluorene	8.663	166	918098	147.4676	ng	100
73)	4-Chlorophenyl-phenyle...	8.647	204	457876	147.5246	ng	84
74)	Diethylphthalate	8.540	149	937320	154.6529	ng	96
75)	4-Nitroaniline	8.679	138	276164	160.6175	ng	76
76)	Atrazine	9.298	200	279263	159.7569	ng	95
78)	4,6-Dinitro-2-methylph...	8.705	198	201900	150.8447	ng	72
79)	n-Nitrosodiphenylamine	8.764	169	813661	149.5502	ng	99
81)	1,2-Diphenylhydrazine	8.807	77	980451	153.6942	ng	76
82)	4-Bromophenyl-phenylether	9.133	248	280341	151.8259	ng	84
83)	Hexachlorobenzene	9.208	284	283220	145.5628	ng	64
84)	N-Octadecane	9.480	57	537052	146.2861	ng	76
85)	Pentachlorophenol	9.400	266	197761	155.3541	ng	96
86)	Phenanthrene	9.635	178	1429114	147.9588	ng	99
87)	Anthracene	9.688	178	1491995	153.5877	ng	99
88)	Carbazole	9.854	167	1331036	148.6269	ng	98
89)	Di-n-butylphthalate	10.244	149	1599024	163.1120	ng	97
90)	Fluoranthene	10.960	202	1628687	152.7662	ng	90
92)	Pyrene	11.222	202	1707526	153.7245	ng	87
93)	Benzidine	11.109	184	558316	113.7685	ng	85
95)	4,4'-DDE	11.345	246	372828	160.2888	ng	95
96)	4,4'-DDD	11.740	235	699558	160.2146	ng	96
97)	Butylbenzylphthalate	12.002	149	764398	151.2803	ng	68
98)	4,4'-DDT	12.098	235	621205	164.9946	ng	98
99)	3,3'-Dichlorobenzidine	12.616	252	449688	162.6082	ng	96
100)	Benzo[a]anthracene	12.643	228	1680051	151.8563	ng	99
101)	Chrysene	12.685	228	1595529	148.1157	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.696	149	1066451	168.1093	ng	94
104)	Di-n-octylphthalate	13.444	149	1812562	162.2858	ng	100
105)	Benzo[b]fluoranthene	13.855	252	1612344m	142.5539	ng	
106)	Benzo[k]fluoranthene	13.882	252	1537773	137.5809	ng	95
107)	Benzo[a]pyrene	14.197	252	1628608	152.9970	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.527	276	1541240	136.3590	ng	84
109)	Dibenzo[a,h]anthracene	15.549	278	1297706	134.0101	ng	89
110)	Benzo[g,h,i]perylene	15.891	276	1296026	131.0651	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101324.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@160PPM
Data File: 5M101324.D
Acq On : 10/20/17 10:49
Operator : AH/JB
Sam Mult : 1 Vial# : 6
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:23
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(INT),I
1,4-Dioxane,I
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->


Abundance
TIC: 5M101324.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dimethylphenol,P
bis(2-Chloroethoxy)methane,P
2,4-Dichlorophenol,P
Naphthalene,P
4-Chloroaniline,P
Hexachlorobutadiene,P
Diphenyl Ether,T
Acenaphthylene,M
Acenaphthene,P
Dibenzofuran,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
1,2-Diphenylhydrazine,T
2,4,6-Tribromophenol,S
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
4,4'-DDE,T
Time-->


Abundance
TIC: 5M101324.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
4,4'-DDE,T
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo(g,h,i)perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@196PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101323.D Sam Mult : 1 Vial# : 5 Qt On : 10/20/17 14:23
Acq On : 10/20/17 10:26 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	32780	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.719	152	78163	40.00	ng	0.00
31) Naphthalene-d8	6.739	136	332760	40.00	ng	0.01
50) Acenaphthene-d10	8.160	164	217665	40.00	ng	0.01
77) Phenanthrene-d10	9.608	188	356516	40.00	ng	0.01
91) Chrysene-d12	12.659	240	412279	40.00	ng	0.02
103) Perylene-d12	14.256	264	375753	40.00	ng	0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	502688	241.85	ng	0.00
Spiked Amount 100.000			Recovery = 241.85%			
16) Phenol-d5	5.414	99	640790	243.25	ng	0.02
Spiked Amount 100.000			Recovery = 243.25%			
32) Nitrobenzene-d5	6.178	128	132288	106.38	ng	0.01
Spiked Amount 50.000			Recovery = 212.76%			
55) 2-Fluorobiphenyl	7.573	172	633878	94.23	ng	0.00
Spiked Amount 50.000			Recovery = 188.46%			
80) 2,4,6-Tribromophenol	8.898	330	172769	209.18	ng	0.02
Spiked Amount 100.000			Recovery = 209.18%			
94) Terphenyl-d14	11.414	244	680869	104.25	ng	0.02
Spiked Amount 50.000			Recovery = 208.50%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.460	88	182723	201.4442	ng	94
9) Pyridine	2.882	79	568542	232.7205	ng	73
10) N-Nitrosodimethylamine	2.823	74	320153	240.0401	ng	74
12) Benzaldehyde	5.334	77	92207	86.6251	ng	79
13) Aniline	5.436	93	796153	226.6620	ng	47
14) Pentachloroethane	5.479	117	167600	246.2881	ng	79
15) bis(2-Chloroethyl)ether	5.500	93	519325	230.6416	ng	81
17) Phenol	5.425	94	718714	239.8891	ng	96
18) 2-Chlorophenol	5.543	128	570298	249.5283	ng	80
19) N-Decane	5.596	57	497076	216.6455	ng	83
20) 1,3-Dichlorobenzene	5.671	146	553739	232.6110	ng	99
22) 1,4-Dichlorobenzene	5.735	146	565842	194.5040	ng	96
23) 1,2-Dichlorobenzene	5.858	146	547717	198.2321	ng	97
24) Benzyl alcohol	5.842	108	368144	211.9324	ng	74
25) bis(2-chloroisopropyl)...	5.954	45	710745	186.2678	ng	98
26) 2-Methylphenol	5.933	108	513460	201.7565	ng	97
27) Acetophenone	6.056	105	720536	190.2584	ng	67
28) Hexachloroethane	6.141	117	220428	204.6692	ng	90
29) N-Nitroso-di-n-propyla...	6.061	70	355915	187.6402	ng	64
30) 3&4-Methylphenol	6.066	108	480500	185.5719	ng	98
33) Nitrobenzene	6.194	77	569331	199.1298	ng	76
34) Isophorone	6.387	82	1074027	206.0711	ng	85
35) 2-Nitrophenol	6.440	139	310701	217.3592	ng	87
36) 2,4-Dimethylphenol	6.478	107	564046	200.2490	ng	95
37) Benzoic Acid	6.632	105	675863	190.5704	ng	86
38) bis(2-Chloroethoxy)met...	6.547	93	646059	195.2969	ng	98
39) 2,4-Dichlorophenol	6.632	162	467117	201.1384	ng	88
40) 1,2,4-Trichlorobenzene	6.691	180	497010	188.5676	ng	97
41) Naphthalene	6.755	128	1625161	202.0997	ng	99
42) 4-Chloroaniline	6.787	127	444116m	183.4429	ng	
43) Hexachlorobutadiene	6.846	225	290813	189.4879	ng	96
44) Caprolactam	7.113	113	169423	188.7265	ng	71
45) 4-Chloro-3-methylphenol	7.161	107	518659	212.0183	ng	81
46) 2-Methylnaphthalene	7.284	142	1091965	188.1105	ng	98
47) 1-Methylnaphthalene	7.364	142	1060513	189.8710	ng	93
48) Methylnaphthalenes (To...	7.284	142	2137810m	374.4877	ng	
49) 1,1'-Biphenyl	7.658	154	1320974	186.5965	ng	95
51) 1,2,4,5-Tetrachloroben...	7.423	216	568155	187.6561	ng	97
52) Hexachlorocyclopentadiene	7.412	237	330142	206.0432	ng	99
53) 2,4,6-Trichlorophenol	7.509	196	368273	204.8695	ng	99
54) 2,4,5-Trichlorophenol	7.541	196	402333	217.9082	ng	99
56) 2-Chloronaphthalene	7.680	162	1073560	188.2979	ng	93
57) 1,4-Dimethylnaphthalene	7.963	156	776132	175.4130	ng	91
58) Dimethylnaphthalenes (...	7.963	156	776132	175.4130	ng	91
59) Diphenyl Ether	7.744	170	763769	179.1816	ng	77
60) 2-Nitroaniline	7.760	65	388530	198.3402	ng	58
61) Coumarin	7.957	146	416886	186.0482	ng	76
62) Acenaphthylene	8.043	152	1608084	185.1707	ng	99
63) Dimethylphthalate	7.920	163	1257891	190.2751	ng	98
64) 2,6-Dinitrotoluene	7.968	165	266266	185.8870	ng	67
65) Acenaphthene	8.192	153	1058638	180.1497	ng	94

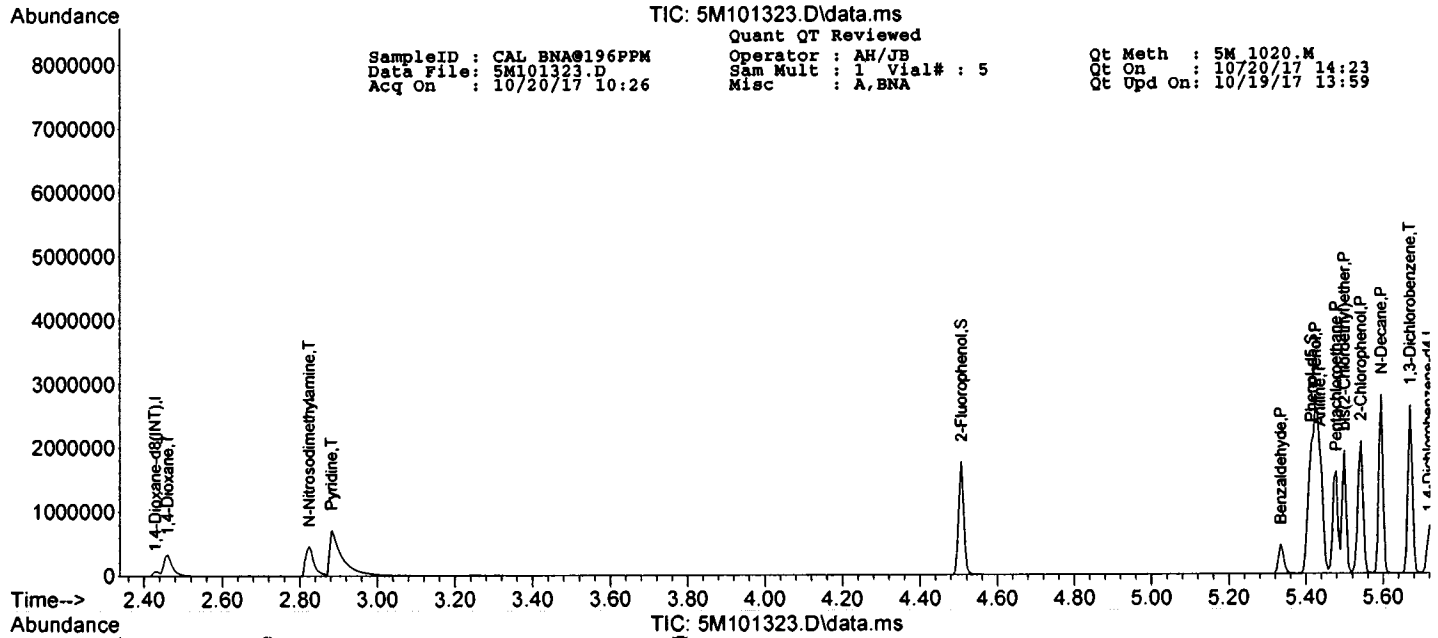
Quantitation Report (QT Reviewed)

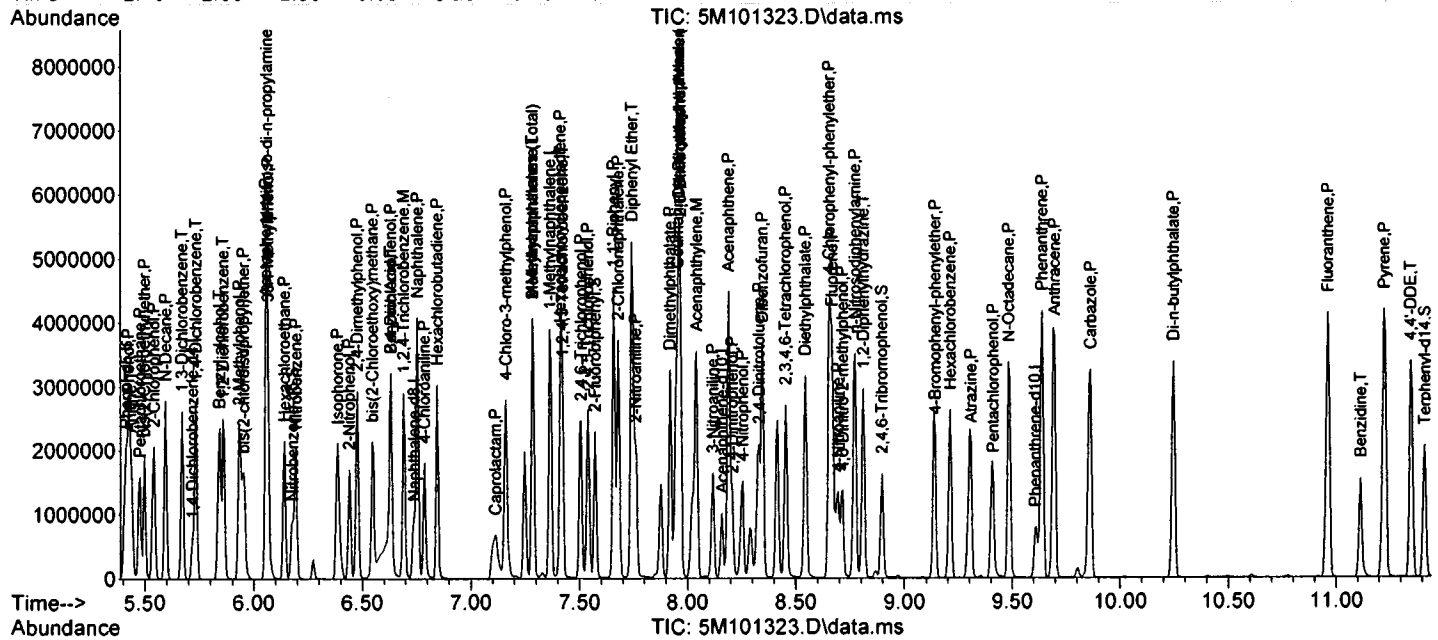
SampleID : CAL BNA@196PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101323.D Sam Mult : 1 Vial# : 5 Qt On : 10/20/17 14:23
Acq On : 10/20/17 10:26 Misc : A,BNA Qt Upd On: 10/19/17 13:59

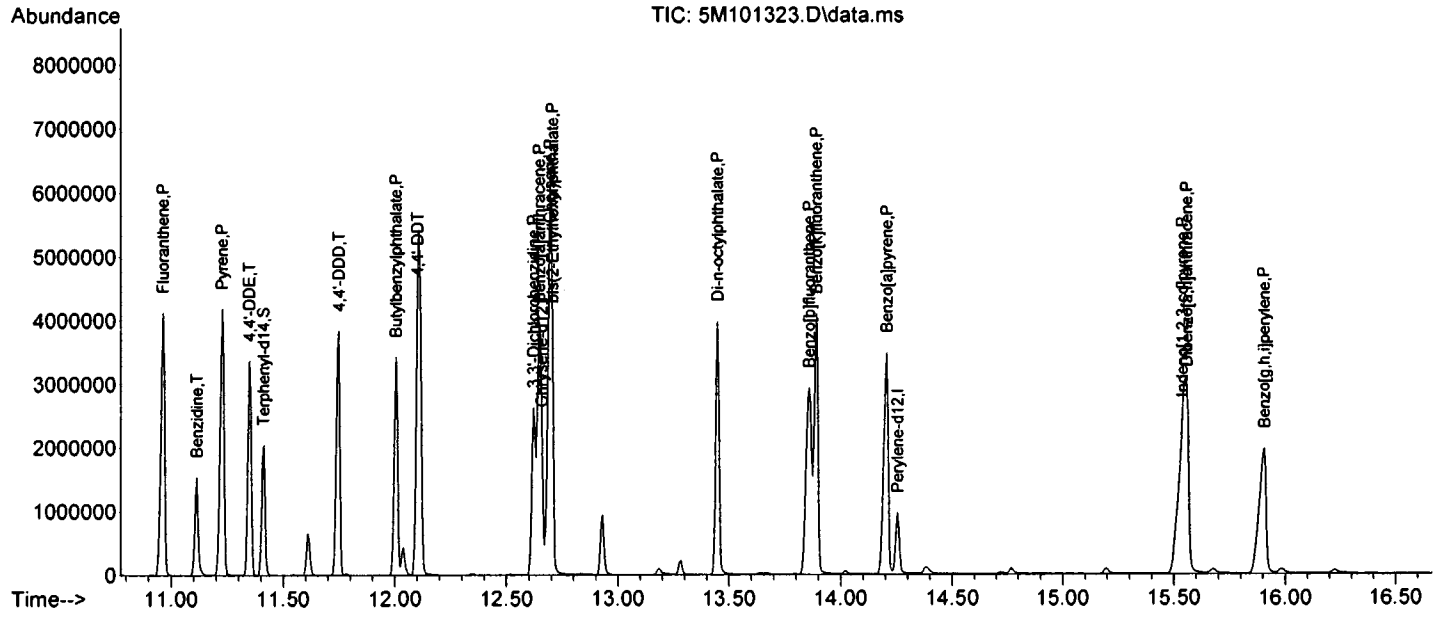
Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.118	138	276812	198.8785	ng	75
67)	2,4-Dinitrophenol	8.208	184	204228	187.6675	ng	32
68)	Dibenzofuran	8.347	168	1527004	173.8882	ng	87
69)	2,4-Dinitrotoluene	8.331	165	432079	210.2769	ng	56
70)	4-Nitrophenol	8.257	65	268696	198.0045	ng	86
71)	2,3,4,6-Tetrachlorophenol	8.454	232	354877	203.9533	ng	83
72)	Fluorene	8.668	166	1159290	170.9288	ng	100
73)	4-Chlorophenyl-phenyle...	8.657	204	591183	174.8453	ng	81
74)	Diethylphthalate	8.545	149	1272995	192.8024	ng	96
75)	4-Nitroaniline	8.695	138	351691	187.7598	ng	75
76)	Atrazine	9.309	200	343374	180.3139	ng	95
78)	4,6-Dinitro-2-methylph...	8.716	198	253025	184.6828	ng	73
79)	n-Nitrosodiphenylamine	8.775	169	1011731	189.3316	ng	99
81)	1,2-Diphenylhydrazine	8.812	77	1239512	197.8321	ng	79
82)	4-Bromophenyl-phenylether	9.143	248	349890	192.9324	ng	78
83)	Hexachlorobenzene	9.213	284	357552	187.1028	ng	68
84)	N-Octadecane	9.485	57	644229	178.6659	ng	75
85)	Pentachlorophenol	9.410	266	248986	190.2643	ng	96
86)	Phenanthrene	9.640	178	1759251	185.4454	ng	100
87)	Anthracene	9.699	178	1826982	191.4864	ng	99
88)	Carbazole	9.865	167	1691135	192.2651	ng	98
89)	Di-n-butylphthalate	10.249	149	2009705	208.7265	ng	98
90)	Fluoranthene	10.965	202	2049666	195.7434	ng	92
92)	Pyrene	11.227	202	2165807	200.3928	ng	89
93)	Benzidine	11.115	184	628580	133.9947	ng	86
95)	4,4'-DDE	11.350	246	470116	207.7239	ng	94
96)	4,4'-DDD	11.750	235	886421	208.6436	ng	96
97)	Butylbenzylphthalate	12.007	149	967319	189.9856	ng	73
98)	4,4'-DDT	12.103	235	772157	210.7789	ng	98
99)	3,3'-Dichlorobenzidine	12.621	252	546501	202.9174	ng	97
100)	Benzo[a]anthracene	12.648	228	2088410	194.0050	ng	99
101)	Chrysene	12.696	228	1962605	187.2475	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.707	149	1281709	207.6476	ng	91
104)	Di-n-octylphthalate	13.449	149	2217107	221.5836	ng	100
105)	Benzo[b]fluoranthene	13.861	252	2107860	208.0302	ng	94
106)	Benzo[k]fluoranthene	13.893	252	1781568m	177.9228	ng	
107)	Benzo[a]pyrene	14.208	252	1893303	198.5408	ng	92
108)	Indeno[1,2,3-cd]pyrene	15.538	276	1960738	193.6405	ng	86
109)	Dibenzo[a,h]anthracene	15.559	278	1657272	191.0374	ng	89
110)	Benzo[g,h,i]perylene	15.907	276	1630392	184.0469	ng	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101323.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@196PPM
Data File: 5M101323.D
Acq On : 10/20/17 10:26
Operator : AH/JB
Sam Mult : 1 Vial# : 5
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:23
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(NT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->


Abundance
TIC: 5M101323.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Diphenyl Ether,T
Acenaphthene,P
Diethylphthalate,P
2,3,4,6-Tetrachlorophenol,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
Time-->


Abundance
TIC: 5M101323.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Perylene-d12,I
Benzo(g,h,i)perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101328.D Sam Mult : 1 Vial# : 10 Qt On : 10/20/17 14:24
Acq On : 10/20/17 12:20 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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)	2.433	96	35960	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	72588	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	298763	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	188904	40.00	ng	0.00
77) Phenanthrene-d10	9.597	188	376428	40.00	ng	0.00
91) Chrysene-d12	12.637	240	422689	40.00	ng	0.00
103) Perylene-d12	14.240	264	397888	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						Qvalue
8) 1,4-Dioxane	2.476	88	766m	0.8533	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	5.430	93	1297	0.4247	ng	42
14) Pentachloroethane	0.000		0	N.D. d		
15) bis(2-Chloroethyl)ether	5.489	93	1479	0.5988	ng	87
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	5.927	108	1314	0.5560	ng	96
27) Acetophenone	0.000		0	N.D. d		
28) Hexachloroethane	0.000		0	N.D. d		
29) N-Nitroso-di-n-propyla...	6.045	70	1071	0.6080	ng	77
30) 3&4-Methylphenol	6.050	108	1381	0.5743	ng	97
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	6.467	107	1501	0.5935	ng	89
37) Benzoic Acid	0.000		0	N.D. d		
38) bis(2-Chloroethoxy)met...	0.000		0	N.D. d		
39) 2,4-Dichlorophenol	6.622	162	997	0.4782	ng	88
40) 1,2,4-Trichlorobenzene	0.000		0	N.D. d		
41) Naphthalene	6.745	128	5306	0.7411	ng	98
42) 4-Chloroaniline	6.782	127	1187	0.5461	ng	87
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		

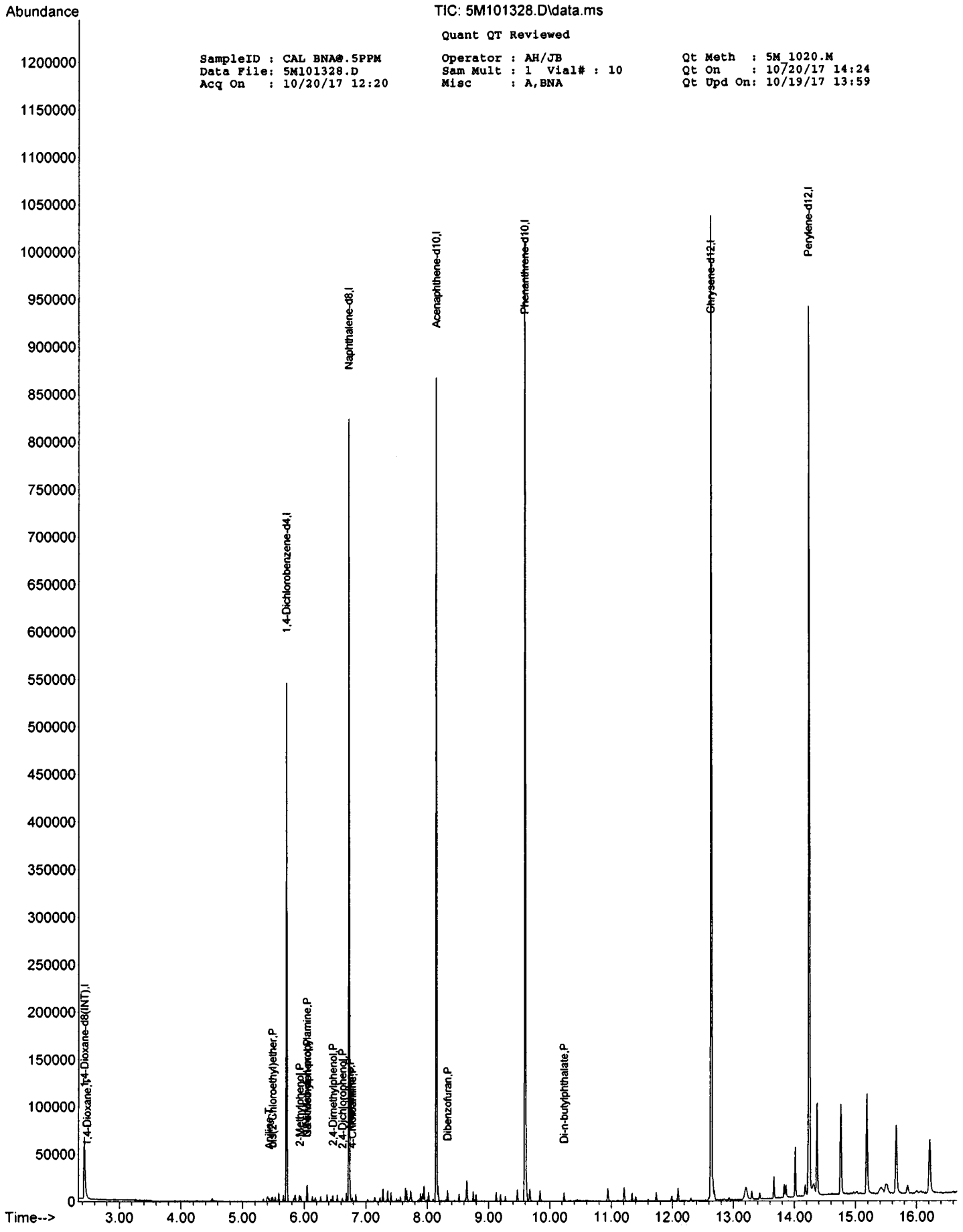
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@.5PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101328.D Sam Mult : 1 Vial# : 10 Qt On : 10/20/17 14:24
Acq On : 10/20/17 12:20 Misc : A,BNA Qt Upd On: 10/19/17 13:59

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Qt Path : G:\GCMSDATA\2017\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	8.331	168	4983	0.6538	ng	84
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. 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	10.233	149	5100	0.5017	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


Abundance
TIC: 5M101328.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@.5PPM
Data File: 5M101328.D
Acq On : 10/20/17 12:20
Operator : AH/JB
Sam Mult : 1 Vial# : 10
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 10/20/17 14:24
Qt Upd On: 10/19/17 13:59
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Naphthalene-d8,I
Acenaphthene-d10,I
Phenanthrene-d10,I
Chrysene-d12,I
Perylene-d12,I
2-Methylphenol,P
2,4-Dimethylphenol,P
Dibenzofuran,P
Di-n-butylphthalate,P
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87595.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/13/2017 9:31:00 Method: EPA 8270D

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	50.91	50	**		1.171	1.057	1.82	
Pyridine	1	0		3.07	47.58	50	**		2.828	2.691	4.84	
N-Nitrosodimethylamine	1	0		2.99	47.15	50	**		1.682	1.586	5.71	
2-Fluorophenol	1	0	S	4.61	47.10	50	**		2.421	2.281	5.81	
Benzaldehyde	1	0		5.44	17.60	50	20	0.01	1.288	0.504	64.80	C1
Aniline	1	0		5.53	45.96	50	**		3.131	3.316	8.07	
Pentachloroethane	1	0		5.57	46.46	50	**	0.05	0.808	0.750	7.08	
bis(2-Chloroethyl)ether	1	0		5.59	43.90	50	20	0.7	2.706	2.376	12.19	
Phenol-d5	1	0	S	5.49	46.05	50	**		3.098	2.854	7.90	
Phenol	1	0		5.51	45.70	50	20	0.8	3.618	3.307	8.61	
2-Chlorophenol	1	0		5.63	46.34	50	20	0.8	2.558	2.371	7.32	
N-Decane	1	0		5.68	48.52	50	**	0.05	2.360	2.290	2.96	
1,3-Dichlorobenzene	1	0		5.77	45.75	50	**		2.603	2.381	8.51	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	49.50	50	20		1.428	1.413	1.00	
1,2-Dichlorobenzene	1	0		5.95	48.78	50	**		1.373	1.340	2.45	
Benzyl alcohol	1	0		5.93	48.89	50	**		0.919	0.899	2.22	
bis(2-chloroisopropyl)ether	1	0		6.04	49.59	50	20	0.01	1.706	1.692	0.82	
2-Methylphenol	1	0		6.01	49.36	50	20	0.7	1.288	1.272	1.29	
Acetophenone	1	0		6.14	49.53	50	20	0.01	1.984	1.965	0.95	
Hexachloroethane	1	0		6.23	49.91	50	20	0.3	0.557	0.556	0.18	
N-Nitroso-di-n-propylamine	1	0		6.14	50.32	50	20	0.5	0.962	0.929	0.64	
3&4-Methylphenol	1	0		6.14	50.61	50	20		1.275	1.290	1.22	
Naphthalene-d8	1	0	I	6.83	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.26	25.03	25	**		0.161	0.161	0.14	
Nitrobenzene	1	0		6.28	50.93	50	20	0.2	0.357	0.364	1.86	
Isophorone	1	0		6.47	50.40	50	20	0.4	0.667	0.672	0.81	
2-Nitrophenol	1	0		6.53	51.53	50	20	0.1	0.171	0.183	3.06	
2,4-Dimethylphenol	1	0		6.55	50.79	50	20	0.2	0.337	0.343	1.58	
Benzoic Acid	1	0		6.62	22.75	50	**		0.311	0.151	54.50	
bis(2-Chloroethoxy)methane	1	0		6.63	50.47	50	20	0.3	0.421	0.425	0.95	
2,4-Dichlorophenol	1	0		6.71	52.36	50	20	0.2	0.258	0.271	4.72	
1,2,4-Trichlorobenzene	1	0		6.78	49.93	50	**		0.293	0.292	0.13	
Naphthalene	1	0		6.85	53.36	50	20	0.7	1.069	1.039	6.72	
4-Chloroaniline	1	0		6.88	52.89	50	20	0.01	0.290	0.379	5.79	
Hexachlorobutadiene	1	0		6.93	50.33	50	20	0.01	0.150	0.151	0.65	
Caprolactam	1	0		7.16	49.13	50	20	0.01	0.133	0.129	1.73	
4-Chloro-3-methylphenol	1	0		7.24	50.70	50	20	0.2	0.298	0.302	1.40	
2-Methylnaphthalene	1	0		7.38	48.98	50	**	0.4	0.692	0.678	2.04	
1-Methylnaphthalene	1	0		7.46	49.19	50	**	0.4	0.662	0.652	1.61	
Methylnaphthalenes	1	0		7.38	50.07	100	**			0.339	49.93	
1,1'-Biphenyl	1	0		7.75	48.74	50	20	0.01	0.813	0.792	2.52	
Acenaphthene-d10	1	0	I	8.26	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.51	50.94	50	20	0.01	0.504	0.513	1.87	
Hexachlorocyclopentadiene	1	0		7.50	51.68	50	20	0.05	0.283	0.292	3.35	
2,4,6-Trichlorophenol	1	0		7.60	53.82	50	20	0.2	0.315	0.354	7.65	
2,4,5-Trichlorophenol	1	0		7.63	54.56	50	20	0.2	0.323	0.353	9.11	
2-Fluorobiphenyl	1	0	S	7.67	25.44	25	**		1.244	1.266	1.75	
2-Chloronaphthalene	1	0		7.78	50.22	50	20	0.8	1.066	1.070	0.45	
1,4-Dimethylnaphthalene	1	0		8.06	50.66	50	**		0.826	0.837	1.32	
Dimethylnaphthalenes	1	0		8.06	50.66	50	20			0.837	1.32	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: **8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.**

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87595.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/13/2017 9:31:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.84	50.02	50	**		0.793	0.794	0.04	
2-Nitroaniline	1	0		7.86	53.19	50	20	0.01	0.372	0.396	6.38	
Coumarin	1	0		8.04	49.80		**		0.442			
Acenaphthylene	1	0		8.13	50.93	50	20	0.9	1.657	1.688	1.87	
Dimethylphthalate	1	0		8.00	49.50	50	20	0.01	1.229	1.217	0.99	
2,6-Dinitrotoluene	1	0		8.06	52.15	50	20	0.2	0.267	0.279	4.30	
Acenaphthene	1	0		8.29	49.57	50	20	0.9	1.085	1.075	0.86	
3-Nitroaniline	1	0		8.21	53.18	50	20	0.01	0.281	0.328	6.35	
2,4-Dinitrophenol	1	0		8.30	48.08	50	20	0.01	0.124	0.128	3.83	
Dibenzofuran	1	0		8.44	51.81	50	20	0.8	1.634	1.558	3.62	
2,4-Dinitrotoluene	1	0		8.41	50.58	50	20	0.2	0.375	0.393	1.16	
4-Nitrophenol	1	0		8.33	47.78	50	20	0.01	0.230	0.237	4.45	
2,3,4,6-Tetrachlorophenol	1	0		8.54	49.43	50	20	0.01	0.285	0.294	1.13	
Fluorene	1	0		8.76	49.78	50	20	0.9	1.249	1.243	0.45	
4-Chlorophenyl-phenylether	1	0		8.75	50.12	50	20	0.4	0.580	0.582	0.24	
Diethylphthalate	1	0		8.63	48.84	50	20	0.01	1.275	1.246	2.32	
4-Nitroaniline	1	0		8.77	49.79	50	20	0.01	0.350	0.360	0.43	
Atrazine	1	0		9.39	49.04	50	20	0.01	0.315	0.309	1.93	
Phenanthrene-d10	1	0	I	9.71	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.80	53.62	50	20	0.01	0.103	0.116	7.23	
n-Nitrosodiphenylamine	1	0		8.87	52.42	50	20	0.01	0.602	0.631	4.84	
2,4,6-Tribromophenol	1	0	S	8.99	52.01	50	**		0.079	0.087	4.02	
1,2-Diphenylhydrazine	1	0		8.91	51.30	50	**		0.723	0.742	2.61	
4-Bromophenyl-phenylether	1	0		9.24	51.77	50	20	0.1	0.189	0.195	3.55	
Hexachlorobenzene	1	0		9.30	49.71	50	20	0.1	0.199	0.198	0.57	
N-Octadecane	1	0		9.57	54.89	50	**	0.05	0.398	0.437	9.78	
Pentachlorophenol	1	0		9.50	45.65	50	20	0.05	0.114	0.107	8.70	
Phenanthrene	1	0		9.74	49.80	50	20	0.7	1.052	1.048	0.41	
Anthracene	1	0		9.80	50.77	50	20	0.7	1.055	1.071	1.53	
Carbazole	1	0		9.97	50.51	50	20	0.01	1.010	1.020	1.01	
Di-n-butylphthalate	1	0		10.34	54.24	50	20	0.01	1.147	1.244	8.48	
Fluoranthene	1	0		11.07	50.28	50	20	0.6	1.167	1.174	0.57	
Chrysene-d12	1	0	I	12.77	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.33	52.99	50	20	0.6	1.114	1.180	5.99	
Benzidine	1	0		11.23	34.68	50	**		0.322	0.330	30.64	
Terphenyl-d14	1	0	S	11.52	26.16	25	**		0.619	0.647	4.65	
4,4'-DDE	1	0		11.45	53.39		**		0.214			
4,4'-DDD	1	0		11.85	53.34		**		0.412			
Butylbenzylphthalate	1	0		12.10	53.37	50	20	0.01	0.502	0.549	6.73	
4,4'-DDT	1	0		12.21	58.84		**		0.325			
3,3'-Dichlorobenzidine	1	0		12.73	59.12	50	20	0.01	0.258	0.365	18.25	
Benzo[a]anthracene	1	0		12.75	50.49	50	20	0.8	1.049	1.059	0.99	
Chrysene	1	0		12.80	51.17	50	20	0.7	0.975	0.998	2.34	
bis(2-Ethylhexyl)phthalate	1	0		12.80	57.19	50	20	0.01	0.648	0.741	14.38	
Perylene-d12	1	0	I	14.40	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.55	54.84	50	20	0.01	1.172	1.357	9.69	
Benzo[b]fluoranthene	1	0		13.98	50.43	50	20	0.7	1.051	1.060	0.86	
Benzo[k]fluoranthene	1	0		14.01	48.14	50	20	0.7	1.060	1.020	3.72	
Benzo[a]pyrene	1	0		14.34	51.71	50	20	0.7	1.023	1.058	3.41	
Indeno[1,2,3-cd]pyrene	1	0		15.71	52.30	50	20	0.5	1.064	1.113	4.60	
Dibenzo[a,h]anthracene	1	0		15.74	53.16	50	20	0.4	0.880	0.936	6.31	
Benzo[g,h,i]perylene	1	0		16.09	51.88	50	20	0.5	0.908	0.942	3.76	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87595.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/13/2017 9:31:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Toluene Diisocyanate	1	100		0.00	0.00	50	**			0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.677	0.000	100.00	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			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	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.826	0.000	100.00	
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			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	
Methoxychlor	1	100		0.00	0.00	10	**			0.000	100.00	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87595.D Sam Mult : 1 Vial# : 2 Qt On : 11/13/17 09:46
Acq On : 11/13/17 09:31 Misc : A,BNA Qt Upd On: 10/19/17 15:22

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.556	96	62835	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.815	152	107593	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	414539	40.00	ng	0.00
50) Acenaphthene-d10	8.257	164	240401	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	425253	40.00	ng	0.00
91) Chrysene-d12	12.765	240	439082	40.00	ng	0.00
103) Perylene-d12	14.400	264	417367	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.608	112	179135	47.10	ng	0.00
Spiked Amount 100.000			Recovery = 47.10%			
16) Phenol-d5	5.495	99	224131	46.05	ng	0.00
Spiked Amount 100.000			Recovery = 46.05%			
32) Nitrobenzene-d5	6.264	128	41811	25.03	ng	0.00
Spiked Amount 50.000			Recovery = 50.06%			
55) 2-Fluorobiphenyl	7.669	172	190145	25.44	ng	0.00
Spiked Amount 50.000			Recovery = 50.88%			
80) 2,4,6-Tribromophenol	8.994	330	46098	52.01	ng	0.00
Spiked Amount 100.000			Recovery = 52.01%			
94) Terphenyl-d14	11.515	244	177635	26.16	ng	0.00
Spiked Amount 50.000			Recovery = 52.32%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.594	88	82996	50.9117	ng	99
9) Pyridine	3.069	79	211394	47.5787	ng	71
10) N-Nitrosodimethylamine	2.989	74	124561	47.1466	ng	71
12) Benzaldehyde	5.441	77	39619	17.6014	ng	70
13) Aniline	5.532	93	260475m	45.9637	ng	
14) Pentachloroethane	5.575	117	58942	46.4621	ng	84
15) bis(2-Chloroethyl)ether	5.591	93	186646	43.9034	ng	78
17) Phenol	5.505	94	259731	45.6972	ng	82
18) 2-Chlorophenol	5.633	128	186222	46.3385	ng	79
19) N-Decane	5.676	57	179897	48.5193	ng	91
20) 1,3-Dichlorobenzene	5.767	146	187041	45.7467	ng	98
22) 1,4-Dichlorobenzene	5.831	146	190095	49.4987	ng	96
23) 1,2-Dichlorobenzene	5.954	146	180162	48.7750	ng	99
24) Benzyl alcohol	5.927	108	120915	48.8900	ng	71
25) bis(2-chloroisopropyl)...	6.040	45	227545	49.5907	ng	97
26) 2-Methylphenol	6.013	108	171037	49.3564	ng	95
27) Acetophenone	6.141	105	264276	49.5259	ng	74
28) Hexachloroethane	6.226	117	74799	49.9123	ng	80
29) N-Nitroso-di-n-propyla...	6.141	70	124901	50.3201	ng	83
30) 3&4-Methylphenol	6.141	108	173504	50.6086	ng	98
33) Nitrobenzene	6.280	77	188554	50.9287	ng	78
34) Isophorone	6.467	82	348169	50.4030	ng	87
35) 2-Nitrophenol	6.531	139	94793	51.5289	ng	84
36) 2,4-Dimethylphenol	6.552	107	177623	50.7877	ng	94
37) Benzoic Acid	6.622	105	78265	22.7522	ng	38
38) bis(2-Chloroethoxy)met...	6.632	93	220197	50.4728	ng	97
39) 2,4-Dichlorophenol	6.713	162	140225	52.3580	ng	90
40) 1,2,4-Trichlorobenzene	6.782	180	151522	49.9343	ng	98
41) Naphthalene	6.846	128	538141	53.3608	ng	99
42) 4-Chloroaniline	6.878	127	196237	52.8934	ng	93
43) Hexachlorobutadiene	6.932	225	78098	50.3271	ng	95
44) Caprolactam	7.156	113	66812	49.1344	ng	66
45) 4-Chloro-3-methylphenol	7.242	107	156722	50.6998	ng	84
46) 2-Methylnaphthalene	7.380	142	351194	48.9796	ng	100
47) 1-Methylnaphthalene	7.461	142	337701	49.1940	ng	93
48) Methylnaphthalenes (To...	7.380	142	351256	50.0668	ng	50
49) 1,1'-Biphenyl	7.754	154	410646	48.7417	ng	96
51) 1,2,4,5-Tetrachloroben...	7.514	216	154251	50.9368	ng	97
52) Hexachlorocyclopentadiene	7.503	237	87765	51.6761	ng	98
53) 2,4,6-Trichlorophenol	7.599	196	106461	53.8248	ng	99
54) 2,4,5-Trichlorophenol	7.631	196	105962	54.5575	ng	99
56) 2-Chloronaphthalene	7.781	162	321679	50.2232	ng	90
57) 1,4-Dimethylnaphthalene	8.059	156	251611	50.6620	ng	86
58) Dimethylnaphthalenes (...	8.059	156	251611	50.6620	ng	86
59) Diphenyl Ether	7.840	170	238498	50.0192	ng	79
60) 2-Nitroaniline	7.856	65	119048	53.1923	ng	51
61) Coumarin	8.037	146	132370	49.7952	ng	75
62) Acenaphthylene	8.134	152	507173	50.9334	ng	100
63) Dimethylphthalate	8.000	163	365585	49.5042	ng	98
64) 2,6-Dinitrotoluene	8.059	165	83710	52.1483	ng	63
65) Acenaphthene	8.289	153	323146	49.5696	ng	97

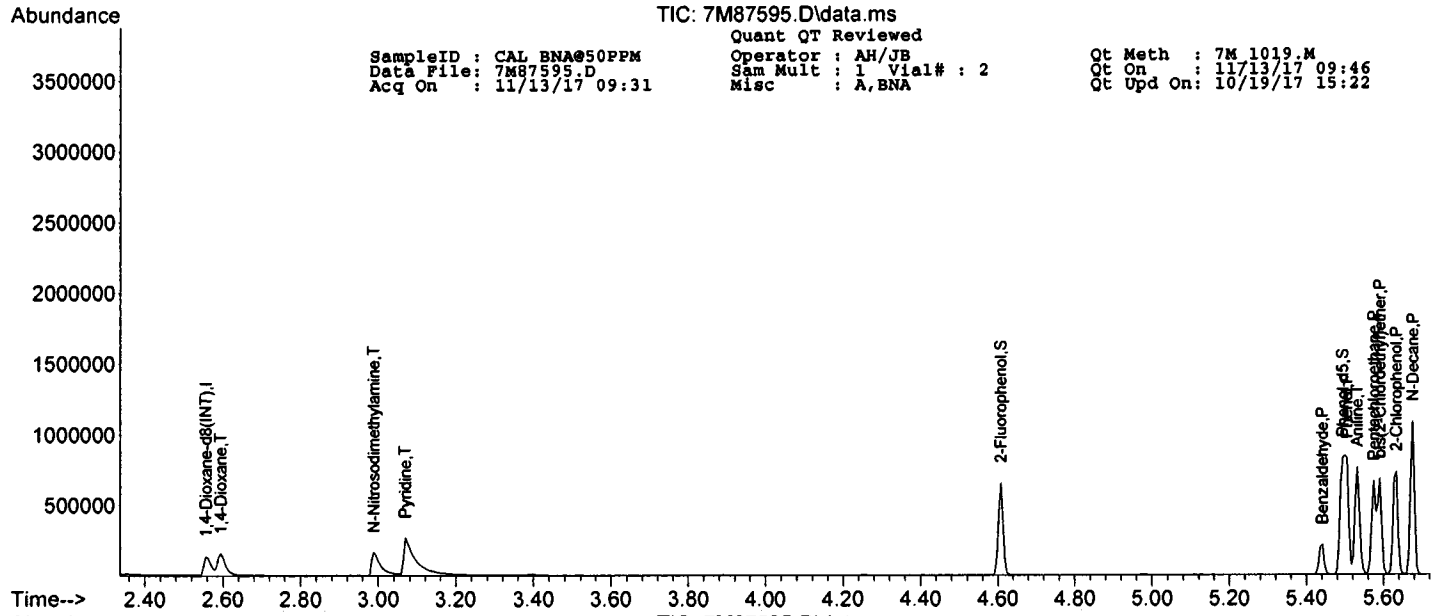
Quantitation Report (QT Reviewed)

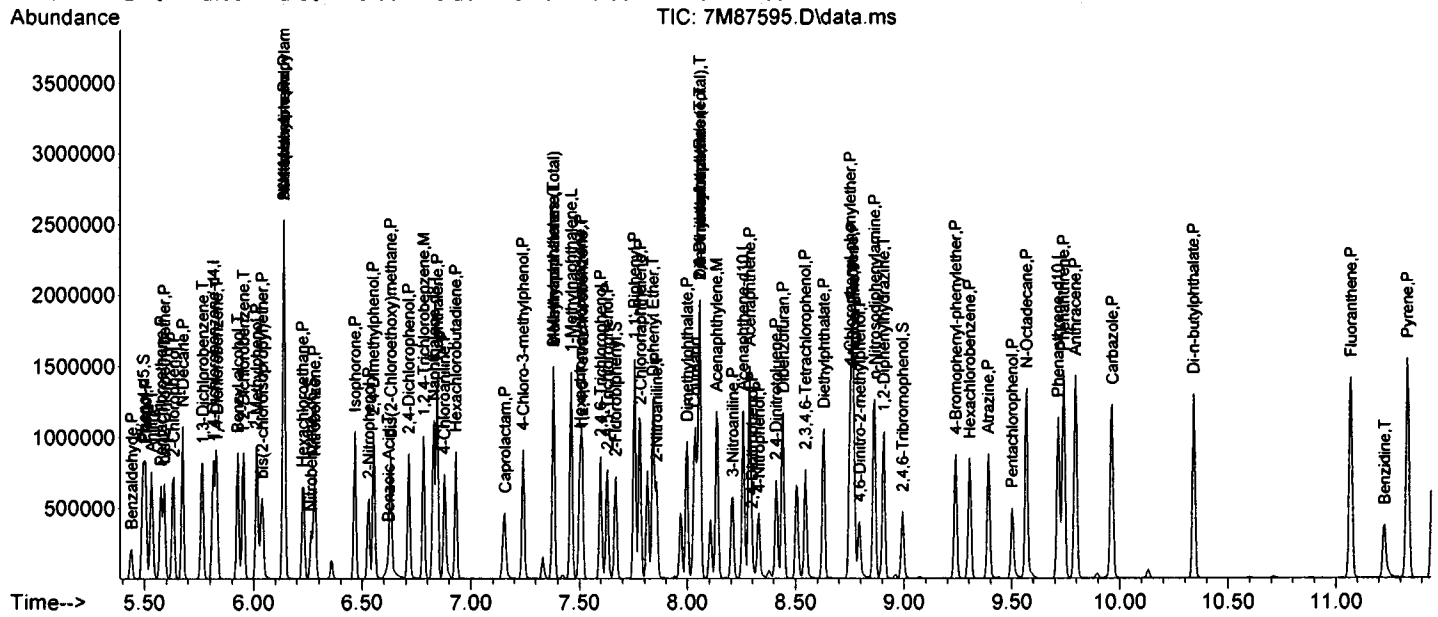
SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87595.D Sam Mult : 1 Vial# : 2 Qt On : 11/13/17 09:46
Acq On : 11/13/17 09:31 Misc : A,BNA Qt Upd On: 10/19/17 15:22

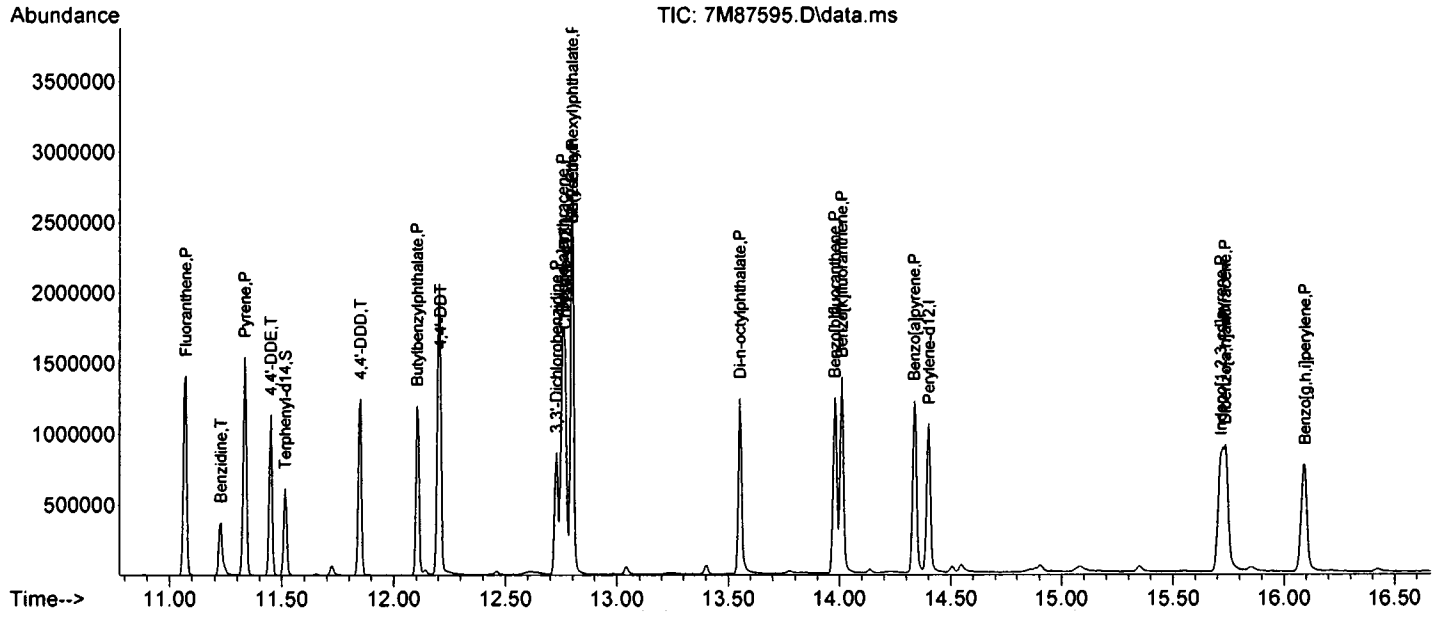
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.208	138	98608	53.1750	ng	74
67)	2,4-Dinitrophenol	8.299	184	38495	48.0832	ng	35
68)	Dibenzofuran	8.444	168	468266	51.8079	ng	83
69)	2,4-Dinitrotoluene	8.411	165	118191	50.5804	ng	68
70)	4-Nitrophenol	8.331	65	71345	47.7761	ng	84
71)	2,3,4,6-Tetrachlorophenol	8.545	232	88459	49.4326	ng	84
72)	Fluorene	8.764	166	373564	49.7761	ng	97
73)	4-Chlorophenyl-phenyle...	8.753	204	174752	50.1218	ng	82
74)	Diethylphthalate	8.630	149	374308	48.8376	ng	98
75)	4-Nitroaniline	8.769	138	108224	49.7850	ng	73
76)	Atrazine	9.389	200	92789	49.0358	ng	96
78)	4,6-Dinitro-2-methylph...	8.796	198	61877	53.6172	ng	66
79)	n-Nitrosodiphenylamine	8.866	169	335370	52.4201	ng	97
81)	1,2-Diphenylhydrazine	8.908	77	394260	51.3026	ng	83
82)	4-Bromophenyl-phenylether	9.239	248	103789	51.7743	ng	82
83)	Hexachlorobenzene	9.304	284	105063	49.7136	ng	69
84)	N-Octadecane	9.571	57	232454	54.8891	ng	74
85)	Pentachlorophenol	9.501	266	57019	45.6522	ng	97
86)	Phenanthrene	9.742	178	557078	49.7960	ng	99
87)	Anthracene	9.795	178	569259	50.7660	ng	99
88)	Carbazole	9.966	167	542085	50.5052	ng	97
89)	Di-n-butylphthalate	10.340	149	661513	54.2412	ng	97
90)	Fluoranthene	11.072	202	623911	50.2837	ng	95
92)	Pyrene	11.334	202	647820	52.9935	ng	95
93)	Benzidine	11.227	184	180986	34.6812	ng	91
95)	4,4'-DDE	11.451	246	125376	53.3890	ng	94
96)	4,4'-DDD	11.852	235	241031	53.3436	ng	95
97)	Butylbenzylphthalate	12.103	149	301372	53.3667	ng	75
98)	4,4'-DDT	12.210	235	210115	58.8362	ng	98
99)	3,3'-Dichlorobenzidine	12.728	252	200488	59.1232	ng	97
100)	Benzo[a]anthracene	12.755	228	581372	50.4939	ng	99
101)	Chrysene	12.797	228	547545	51.1720	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.797	149	406842	57.1886	ng	93
104)	Di-n-octylphthalate	13.551	149	707740	54.8440	ng	99
105)	Benzo[b]fluoranthene	13.978	252	552896	50.4285	ng	96
106)	Benzo[k]fluoranthene	14.010	252	532312	48.1375	ng	95
107)	Benzo[a]pyrene	14.336	252	552057	51.7064	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.714	276	580756	52.2998	ng	89
109)	Dibenzo[a,h]anthracene	15.736	278	488237	53.1568	ng	94
110)	Benzo[g,h,i]perylene	16.094	276	491315	51.8821	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87595.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 7M87595.D
Acq On : 11/13/17 09:31
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 11/13/17 09:46
Qt Upd On: 10/19/17 15:22
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Phenol-d5,S
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 7M87595.D\data.ms
Time-->


Abundance
TIC: 7M87595.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Perylene-d12,I
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66014.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/13/2017 1:15:00 P Method: EPA 8270D

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	2.59	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.63	55.50	50	**		1.208	1.120	11.00	
Pyridine	1	0		3.10	58.02	50	**		2.562	2.973	16.03	
N-Nitrosodimethylamine	1	0		3.03	58.06	50	**		1.443	1.676	16.11	
2-Fluorophenol	1	0	S	4.63	49.13	50	**		2.611	2.566	1.74	
Benzaldehyde	1	0		5.45	41.54	50	20	0.01	1.204	1.000	16.92	
Aniline	1	0		5.54	48.57	50	**		3.501	3.931	2.85	
Pentachloroethane	1	0		5.58	54.28	50	**	0.05	0.942	1.022	8.57	
bis(2-Chloroethyl)ether	1	0		5.60	53.90	50	20	0.7	2.748	2.962	7.79	
Phenol-d5	1	0	S	5.50	51.67	50	**		3.212	3.320	3.35	
Phenol	1	0		5.52	52.63	50	20	0.8	3.681	3.875	5.27	
2-Chlorophenol	1	0		5.64	48.62	50	20	0.8	3.079	2.994	2.76	
N-Decane	1	0		5.68	54.18	50	**	0.05	3.092	3.350	8.37	
1,3-Dichlorobenzene	1	0		5.77	47.54	50	**		3.371	3.205	4.93	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	50.13	50	20		1.505	1.509	0.26	
1,2-Dichlorobenzene	1	0		5.96	48.57	50	**		1.424	1.383	2.86	
Benzyl alcohol	1	0		5.94	50.60	50	**		0.834	0.844	1.20	
bis(2-chloroisopropyl)ether	1	0		6.04	65.39	50	20	0.01	1.983	2.593	30.77	C1
2-Methylphenol	1	0		6.02	50.45	50	20	0.7	1.172	1.182	0.91	
Acetophenone	1	0		6.15	55.42	50	20	0.01	1.761	1.952	10.84	
Hexachloroethane	1	0		6.24	55.07	50	20	0.3	0.537	0.592	10.15	
N-Nitroso-di-n-propylamine	1	0		6.15	64.21	50	20	0.5	0.808	1.038	28.42	C1
3&4-Methylphenol	1	0		6.15	54.36	50	20		1.197	1.302	8.71	
Naphthalene-d8	1	0	I	6.83	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.27	23.85	25	**		0.156	0.148	4.61	
Nitrobenzene	1	0		6.29	64.19	50	20	0.2	0.306	0.393	28.39	C1
Isophorone	1	0		6.47	58.47	50	20	0.4	0.569	0.665	16.95	
2-Nitrophenol	1	0		6.54	47.37	50	20	0.1	0.182	0.173	5.26	
2,4-Dimethylphenol	1	0		6.56	53.10	50	20	0.2	0.320	0.339	6.19	
Benzoic Acid	1	0		6.64	22.42	50	**		0.272	0.130	55.17	
bis(2-Chloroethoxy)methane	1	0		6.63	55.79	50	20	0.3	0.368	0.410	11.57	
2,4-Dichlorophenol	1	0		6.72	45.91	50	20	0.2	0.291	0.267	8.19	
1,2,4-Trichlorobenzene	1	0		6.78	45.84	50	**		0.320	0.293	8.31	
Naphthalene	1	0		6.85	50.67	50	20	0.7	1.075	1.037	1.34	
4-Chloroaniline	1	0		6.88	52.71	50	20	0.01	0.317	0.394	5.41	
Hexachlorobutadiene	1	0		6.93	47.21	50	20	0.01	0.176	0.166	5.59	
Caprolactam	1	0		7.16	51.54	50	20	0.01	0.117	0.116	3.07	
4-Chloro-3-methylphenol	1	0		7.25	51.74	50	20	0.2	0.267	0.276	3.47	
2-Methylnaphthalene	1	0		7.38	50.01	50	**	0.4	0.709	0.709	0.02	
1-Methylnaphthalene	1	0		7.46	50.23	50	**	0.4	0.681	0.684	0.47	
Methylnaphthalenes	1	0		7.38	99.63	100	**			0.691	0.37	
1,1'-Biphenyl	1	0		7.75	48.88	50	20	0.01	0.824	0.806	2.23	
Acenaphthene-d10	1	0	I	8.26	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.51	49.41	50	20	0.01	0.568	0.561	1.17	
Hexachlorocyclopentadiene	1	0		7.50	35.40	50	20	0.05	0.329	0.233	29.20	C1
2,4,6-Trichlorophenol	1	0		7.60	47.94	50	20	0.2	0.347	0.333	4.13	
2,4,5-Trichlorophenol	1	0		7.63	44.14	50	20	0.2	0.373	0.330	11.72	
2-Fluorobiphenyl	1	0	S	7.66	23.30	25	**		1.252	1.167	6.78	
2-Chloronaphthalene	1	0		7.78	49.28	50	20	0.8	1.055	1.040	1.45	
1,4-Dimethylnaphthalene	1	0		8.05	52.96	50	**		0.858	0.909	5.92	
Dimethylnaphthalenes	1	0		8.05	52.96	50	20			0.909	5.92	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66014.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/13/2017 1:15:00 P Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.83	48.84	50	**		0.823	0.804	2.33	
2-Nitroaniline	1	0		7.86	55.40	50	20	0.01	0.349	0.387	10.80	
Coumarin	1	0		8.04	49.45		**		0.435			
Acenaphthylene	1	0		8.13	49.68	50	20	0.9	1.711	1.699	0.65	
Dimethylphthalate	1	0		8.00	48.47	50	20	0.01	1.209	1.172	3.07	
2,6-Dinitrotoluene	1	0		8.05	52.25	50	20	0.2	0.276	0.304	4.50	
Acenaphthene	1	0		8.28	51.71	50	20	0.9	1.117	1.155	3.42	
3-Nitroaniline	1	0		8.21	50.82	50	20	0.01	0.278	0.324	1.64	
2,4-Dinitrophenol	1	0		8.30	46.95	50	20	0.01	0.123	0.125	6.10	
Dibenzofuran	1	0		8.44	47.63	50	20	0.8	1.621	1.544	4.74	
2,4-Dinitrotoluene	1	0		8.41	49.05	50	20	0.2	0.360	0.361	1.89	
4-Nitrophenol	1	0		8.34	61.58	50	20	0.01	0.215	0.283	23.16	C1
2,3,4,6-Tetrachlorophenol	1	0		8.55	46.06	50	20	0.01	0.323	0.297	7.89	
Fluorene	1	0		8.77	51.09	50	20	0.9	1.283	1.311	2.19	
4-Chlorophenyl-phenylether	1	0		8.75	48.27	50	20	0.4	0.599	0.578	3.46	
Diethylphthalate	1	0		8.63	50.86	50	20	0.01	1.242	1.264	1.72	
4-Nitroaniline	1	0		8.77	50.64	50	20	0.01	0.358	0.364	1.29	
Atrazine	1	0		9.39	48.44	50	20	0.01	0.327	0.316	3.12	
Phenanthrene-d10	1	0	I	9.72	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.80	43.82	50	20	0.01	0.108	0.099	12.36	
n-Nitrosodiphenylamine	1	0		8.86	47.23	50	20	0.01	0.630	0.595	5.54	
2,4,6-Tribromophenol	1	0	S	9.00	57.11	50	**		0.109	0.127	14.22	
1,2-Diphenylhydrazine	1	0		8.90	67.68	50	**		0.650	0.880	35.36	
4-Bromophenyl-phenylether	1	0		9.24	50.71	50	20	0.1	0.208	0.211	1.43	
Hexachlorobenzene	1	0		9.31	54.45	50	20	0.1	0.220	0.240	8.89	
N-Octadecane	1	0		9.56	62.23	50	**	0.05	0.441	0.549	24.47	
Pentachlorophenol	1	0		9.50	42.29	50	20	0.05	0.132	0.112	15.42	
Phenanthrene	1	0		9.74	49.74	50	20	0.7	1.118	1.113	0.51	
Anthracene	1	0		9.80	50.17	50	20	0.7	1.134	1.138	0.35	
Carbazole	1	0		9.96	49.43	50	20	0.01	1.042	1.030	1.15	
Di-n-butylphthalate	1	0		10.34	54.31	50	20	0.01	1.197	1.305	8.62	
Fluoranthene	1	0		11.07	51.06	50	20	0.6	1.176	1.201	2.12	
Chrysene-d12	1	0	I	12.76	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.33	47.84	50	20	0.6	1.118	1.069	4.32	
Benzidine	1	0		11.23	32.95	50	**		0.438	0.398	34.10	
Terphenyl-d14	1	0	S	11.51	20.43	25	**		0.612	0.500	18.28	
4,4'-DDE	1	0		11.45	44.42		**		0.223			
4,4'-DDD	1	0		11.85	45.34		**		0.424			
Butylbenzylphthalate	1	0		12.10	44.85	50	20	0.01	0.489	0.446	10.29	
4,4'-DDT	1	0		12.20	48.65		**		0.359			
3,3'-Dichlorobenzidine	1	0		12.72	52.73	50	20	0.01	0.271	0.331	5.45	
Benzo[a]anthracene	1	0		12.75	47.48	50	20	0.8	1.027	0.975	5.04	
Chrysene	1	0		12.79	50.41	50	20	0.7	0.975	0.983	0.82	
bis(2-Ethylhexyl)phthalate	1	0		12.78	51.50	50	20	0.01	0.683	0.703	2.99	
Perylene-d12	1	0	I	14.38	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.53	46.17	50	20	0.01	1.245	1.184	7.66	
Benzo[b]fluoranthene	1	0		13.96	50.03	50	20	0.7	1.092	1.093	0.06	
Benzo[k]fluoranthene	1	0		13.99	47.02	50	20	0.7	1.088	1.023	5.95	
Benzo[a]pyrene	1	0		14.32	49.10	50	20	0.7	1.043	1.024	1.80	
Indeno[1,2,3-cd]pyrene	1	0		15.69	53.96	50	20	0.5	1.142	1.232	7.91	
Dibenzo[a,h]anthracene	1	0		15.71	52.78	50	20	0.4	0.966	1.019	5.56	
Benzo[g,h,i]perylene	1	0		16.07	57.47	50	20	0.5	0.975	1.121	14.95	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66014.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/13/2017 1:15:00 P Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
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	
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	
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			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	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			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	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.858	0.000	100.00	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66014.D Sam Mult : 1 Vial# : 2 Qt On : 11/13/17 13:34
Acq On : 11/13/17 13:15 Misc : A,BNA Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.588	96	20066	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.824	152	44202	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	164849	40.00	ng	-0.01
50) Acenaphthene-d10	8.257	164	97341	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	176396	40.00	ng	0.00
91) Chrysene-d12	12.761	240	220519	40.00	ng	0.00
103) Perylene-d12	14.376	264	199151	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.626	112	64355	49.13	ng	0.00
Spiked Amount 100.000			Recovery = 49.13%			
16) Phenol-d5	5.503	99	83267	51.67	ng	0.00
Spiked Amount 100.000			Recovery = 51.67%			
32) Nitrobenzene-d5	6.273	128	15299	23.85	ng	0.00
Spiked Amount 50.000			Recovery = 47.70%			
55) 2-Fluorobiphenyl	7.664	172	70987	23.30	ng	-0.01
Spiked Amount 50.000			Recovery = 46.60%			
80) 2,4,6-Tribromophenol	8.996	330	27915	57.11	ng	0.00
Spiked Amount 100.000			Recovery = 57.11%			
94) Terphenyl-d14	11.515	244	68881	20.43	ng	0.00
Spiked Amount 50.000			Recovery = 40.86%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.625	88	28094	55.4990	ng	83
9) Pyridine	3.101	79	74569	58.0172	ng	93
10) N-Nitrosodimethylamine	3.026	74	42035	58.0560	ng	89
12) Benzaldehyde	5.449	77	25093	41.5395	ng	87
13) Aniline	5.540	93	98597	48.5745	ng	84
14) Pentachloroethane	5.583	117	25644	54.2831	ng	86
15) bis(2-Chloroethyl)ether	5.599	93	74292	53.8956	ng	89
17) Phenol	5.519	94	97202	52.6347	ng	90
18) 2-Chlorophenol	5.642	128	75093	48.6189	ng	83
19) N-Decane	5.679	57	84037	54.1831	ng	96
20) 1,3-Dichlorobenzene	5.770	146	80397	47.5358	ng	97
22) 1,4-Dichlorobenzene	5.834	146	83389	50.1281	ng	96
23) 1,2-Dichlorobenzene	5.957	146	76414	48.5723	ng	97
24) Benzyl alcohol	5.936	108	46649	50.5975	ng	79
25) bis(2-chloroisopropyl)...	6.043	45	143262	65.3851	ng	81
26) 2-Methylphenol	6.022	108	65317	50.4539	ng	100
27) Acetophenone	6.150	105	107874	55.4186	ng	88
28) Hexachloroethane	6.236	117	32708	55.0731	ng	82
29) N-Nitroso-di-n-propyla...	6.150	70	57362	64.2104	ng	85
30) 3&4-Methylphenol	6.150	108	71922	54.3551	ng	99
33) Nitrobenzene	6.289	77	80956	64.1940	ng	82
34) Isophorone	6.471	82	137128	58.4737	ng	92
35) 2-Nitrophenol	6.535	139	35623	47.3716	ng	90
36) 2,4-Dimethylphenol	6.562	107	69931	53.0956	ng	94
37) Benzoic Acid	6.637	105	26789	22.4161	ng	92
38) bis(2-Chloroethoxy)met...	6.631	93	84567	55.7873	ng	98
39) 2,4-Dichlorophenol	6.717	162	55045	45.9068	ng	88
40) 1,2,4-Trichlorobenzene	6.781	180	60460	45.8435	ng	97
41) Naphthalene	6.845	128	213674m	50.6705	ng	
42) 4-Chloroaniline	6.883	127	81137	52.7052	ng	91
43) Hexachlorobutadiene	6.931	225	34253	47.2064	ng	98
44) Caprolactam	7.161	113	23821	51.5372	ng	71
45) 4-Chloro-3-methylphenol	7.247	107	56909	51.7366	ng	80
46) 2-Methylnaphthalene	7.380	142	146106	50.0087	ng	99
47) 1-Methylnaphthalene	7.460	142	140963	50.2340	ng	93
48) Methylnaphthalenes (To...	7.380	142	284831m	99.6279	ng	
49) 1,1'-Biphenyl	7.755	154	166073	48.8838	ng	94
51) 1,2,4,5-Tetrachloroben...	7.509	216	68307	49.4137	ng	94
52) Hexachlorocyclopentadiene	7.498	237	28327	35.4011	ng	97
53) 2,4,6-Trichlorophenol	7.600	196	40522	47.9359	ng	98
54) 2,4,5-Trichlorophenol	7.632	196	40102	44.1400	ng	96
56) 2-Chloronaphthalene	7.776	162	126502	49.2768	ng	93
57) 1,4-Dimethylnaphthalene	8.054	156	110611	52.9576	ng	91
58) Dimethylnaphthalenes (...	8.054	156	110611	52.9576	ng	91
59) Diphenyl Ether	7.835	170	97817	48.8373	ng	90
60) 2-Nitroaniline	7.856	65	47063m	55.4024	ng	
61) Coumarin	8.043	146	52393	49.4539	ng	55
62) Acenaphthylene	8.134	152	206788	49.6761	ng	98
63) Dimethylphthalate	7.995	163	142626	48.4658	ng	98
64) 2,6-Dinitrotoluene	8.054	165	36987	52.2475	ng	83
65) Acenaphthene	8.284	153	140558	51.7115	ng	95

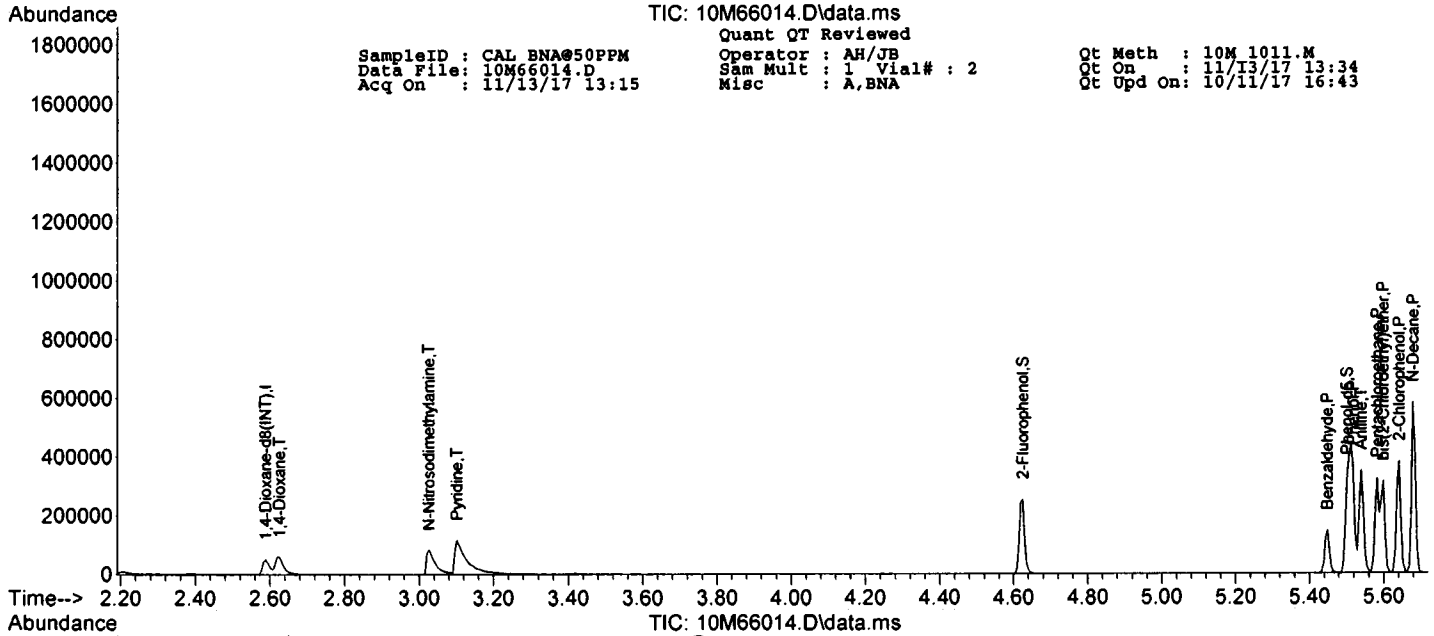
Quantitation Report (QT Reviewed)

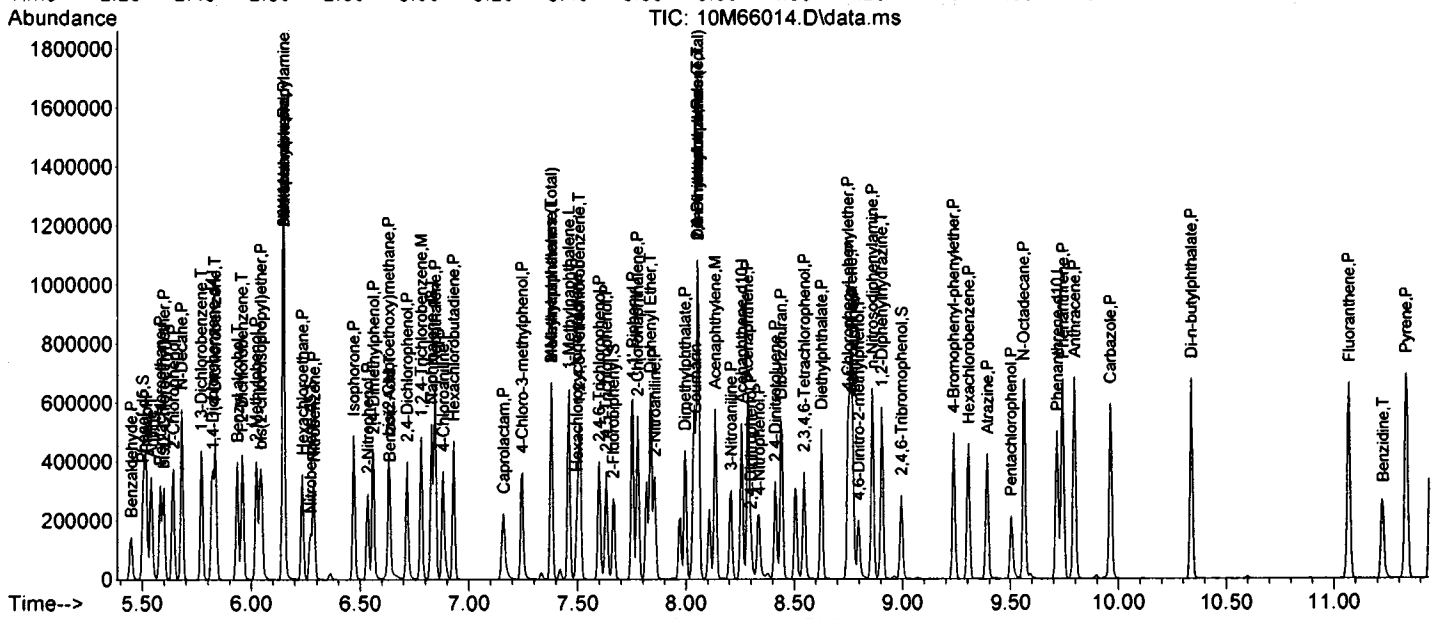
SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66014.D Sam Mult : 1 Vial# : 2 Qt On : 11/13/17 13:34
Acq On : 11/13/17 13:15 Misc : A,BNA Qt Upd On: 10/11/17 16:43

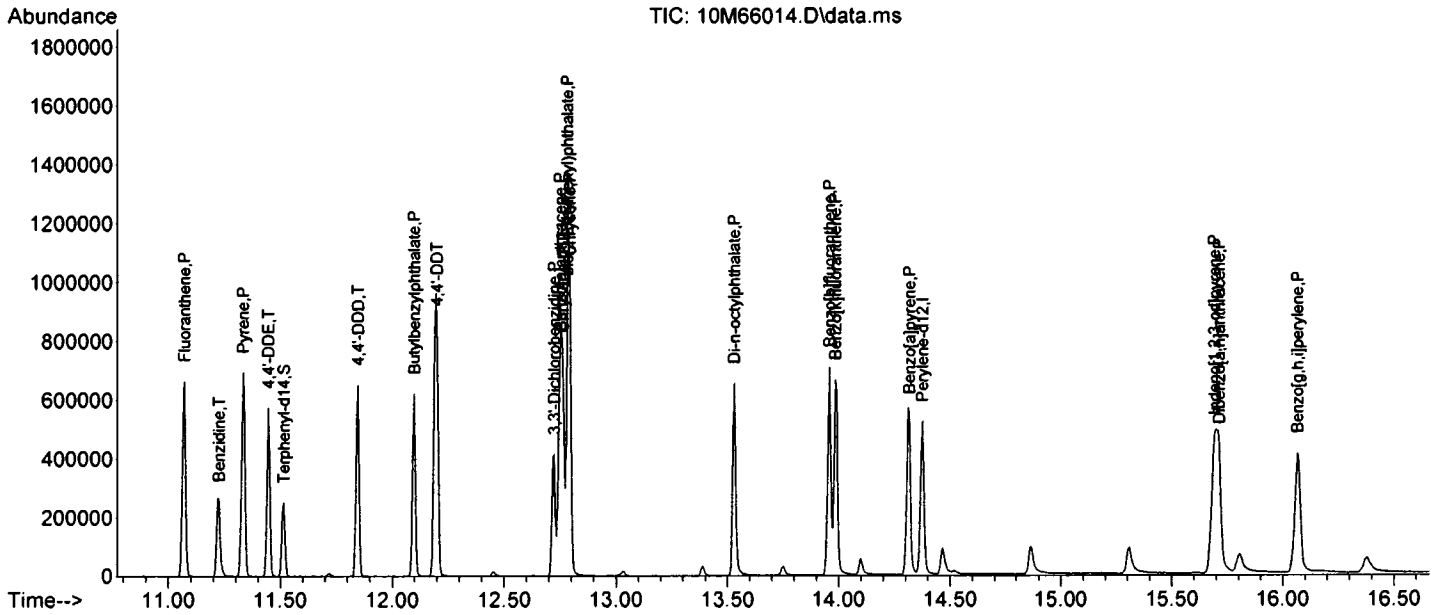
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Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.209	138	39455	50.8194	ng	77
67)	2,4-Dinitrophenol	8.300	184	15174	46.9512	ng	63
68)	Dibenzofuran	8.439	168	187871	47.6325	ng	91
69)	2,4-Dinitrotoluene	8.413	165	43916	49.0541	ng	87
70)	4-Nitrophenol	8.338	65	34408m	61.5820	ng	
71)	2,3,4,6-Tetrachlorophenol	8.546	232	36155	46.0568	ng	88
72)	Fluorene	8.766	166	159508	51.0948	ng	98
73)	4-Chlorophenyl-phenyle...	8.749	204	70382	48.2718	ng	88
74)	Diethylphthalate	8.626	149	153743	50.8585	ng	99
75)	4-Nitroaniline	8.771	138	44287	50.6449	ng	92
76)	Atrazine	9.391	200	38501	48.4391	ng	96
78)	4,6-Dinitro-2-methylph...	8.798	198	21897	43.8211	ng	48
79)	n-Nitrosodiphenylamine	8.862	169	131256	47.2306	ng	96
81)	1,2-Diphenylhydrazine	8.905	77	194118	67.6821	ng	96
82)	4-Bromophenyl-phenylether	9.236	248	46538	50.7147	ng	86
83)	Hexachlorobenzene	9.306	284	52898	54.4454	ng	63
84)	N-Octadecane	9.562	57	121140	62.2329	ng	98
85)	Pentachlorophenol	9.504	266	24609	42.2911	ng	99
86)	Phenanthrene	9.744	178	245303	49.7429	ng	100
87)	Anthracene	9.798	178	250970	50.1749	ng	99
88)	Carbazole	9.964	167	227095	49.4253	ng	98
89)	Di-n-butylphthalate	10.338	149	287645	54.3093	ng	98
90)	Fluoranthene	11.071	202	264880	51.0588	ng	91
92)	Pyrene	11.333	202	294767	47.8404	ng	89
93)	Benzidine	11.226	184	109693	32.9495	ng	86
95)	4,4'-DDE	11.445	246	54723	44.4182	ng	91
96)	4,4'-DDD	11.846	235	105890	45.3375	ng	95
97)	Butylbenzylphthalate	12.098	149	122802	44.8541	ng	82
98)	4,4'-DDT	12.199	235	96187	48.6462	ng	94
99)	3,3'-Dichlorobenzidine	12.724	252	91244	52.7264	ng	95
100)	Benzo[a]anthracene	12.750	228	268699	47.4782	ng	99
101)	Chrysene	12.793	228	270921	50.4114	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.782	149	193884	51.4974	ng	99
104)	Di-n-octylphthalate	13.531	149	294683	46.1705	ng	99
105)	Benzo[b]fluoranthene	13.959	252	272087	50.0283	ng	94
106)	Benzo[k]fluoranthene	13.986	252	254728m	47.0239	ng	
107)	Benzo[a]pyrene	14.317	252	254990	49.1005	ng	91
108)	Indeno[1,2,3-cd]pyrene	15.692	276	306676	53.9556	ng	82
109)	Dibenzo[a,h]anthracene	15.713	278	253770	52.7775	ng	87
110)	Benzo[g,h,i]perylene	16.066	276	279017	57.4734	ng	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 10M66014.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 10M66014.D
Acq On : 11/13/17 13:15
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 11/13/17 13:34
Qt Upd On: 10/11/17 16:43
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 10M66014.D\data.ms
Benzaldehyde,P
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2,4-Dichlorophenol,P
Hexachlorobutadiene,P
Diethylphthalate,P
2,3,4,6-Tetrachlorophenol,P
4,6-Dinitro-2-methylphenol,P
2,4,6-Tribromophenol,S
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 10M66014.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo(a)pyrene,P
Perylene-d12,I
Benzo(g,h,i)perylene,P
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 5M101508.D **Instrument:** GCMS 5

Cont Calibration Date/Time 11/14/2017 9:01:00 Method: EPA 8270D

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	2.43	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.46	54.13	50	**		1.210	1.133	8.25	
Pyridine	1	0		2.90	50.67	50	**		3.086	3.128	1.34	
N-Nitrosodimethylamine	1	0		2.82	55.13	50	**		1.684	1.857	10.26	
2-Fluorophenol	1	0	S	4.51	51.63	50	**		2.716	2.805	3.27	
Benzaldehyde	1	0		5.33	28.66	50	20	0.01	1.278	0.733	42.68	C1
Aniline	1	0		5.43	59.37	50	**		3.710	4.449	18.75	
Pentachloroethane	1	0		5.47	51.52	50	**	0.05	0.904	0.931	3.04	
bis(2-Chloroethyl)ether	1	0		5.49	51.72	50	20	0.7	2.902	3.002	3.43	
Phenol-d5	1	0	S	5.41	53.93	50	**		3.444	3.715	7.86	
Phenol	1	0		5.42	54.70	50	20	0.8	3.972	4.346	9.40	
2-Chlorophenol	1	0		5.53	53.64	50	20	0.8	2.972	3.188	7.27	
N-Decane	1	0		5.59	52.86	50	**	0.05	2.950	3.119	5.72	
1,3-Dichlorobenzene	1	0		5.67	52.92	50	**		3.068	3.247	5.85	
1,4-Dichlorobenzene-d4	1	0	I	5.71	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.73	49.50	50	20		1.495	1.480	1.01	
1,2-Dichlorobenzene	1	0		5.85	49.66	50	**		1.439	1.429	0.68	
Benzyl alcohol	1	0		5.83	51.93	50	**		0.919	0.954	3.87	
bis(2-chloroisopropyl)ether	1	0		5.94	50.35	50	20	0.01	1.970	1.984	0.71	
2-Methylphenol	1	0		5.93	51.49	50	20	0.7	1.317	1.356	2.98	
Acetophenone	1	0		6.04	52.53	50	20	0.01	1.997	2.098	5.05	
Hexachloroethane	1	0		6.14	49.64	50	20	0.3	0.564	0.560	0.73	
N-Nitroso-di-n-propylamine	1	0		6.04	51.32	50	20	0.5	1.011	1.038	2.64	
3&4-Methylphenol	1	0		6.06	53.15	50	20		1.343	1.428	6.31	
Naphthalene-d8	1	0	I	6.73	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.17	24.87	25	**		0.152	0.151	0.54	
Nitrobenzene	1	0		6.18	50.05	50	20	0.2	0.346	0.346	0.09	
Isophorone	1	0		6.37	51.39	50	20	0.4	0.645	0.663	2.77	
2-Nitrophenol	1	0		6.43	53.12	50	20	0.1	0.173	0.184	6.24	
2,4-Dimethylphenol	1	0		6.47	50.24	50	20	0.2	0.348	0.350	0.49	
Benzoic Acid	1	0		6.56	48.30	50	**		0.291	0.307	3.40	
bis(2-Chloroethoxy)methane	1	0		6.54	49.37	50	20	0.3	0.404	0.399	1.27	
2,4-Dichlorophenol	1	0		6.62	51.38	50	20	0.2	0.281	0.289	2.76	
1,2,4-Trichlorobenzene	1	0		6.69	49.63	50	**		0.317	0.315	0.74	
Naphthalene	1	0		6.74	50.31	50	20	0.7	1.080	1.005	0.62	
4-Chloroaniline	1	0		6.78	52.38	50	20	0.01	0.320	0.401	4.76	
Hexachlorobutadiene	1	0		6.84	47.66	50	20	0.01	0.186	0.178	4.68	
Caprolactam	1	0		7.06	58.03	50	20	0.01	0.113	0.131	16.05	
4-Chloro-3-methylphenol	1	0		7.15	51.13	50	20	0.2	0.301	0.308	2.26	
2-Methylnaphthalene	1	0		7.28	50.17	50	**	0.4	0.700	0.702	0.34	
1-Methylnaphthalene	1	0		7.35	50.00	50	**	0.4	0.679	0.678	0.01	
Methylnaphthalenes	1	0		7.28	100.45	100	**			0.691	0.45	
1,1'-Biphenyl	1	0		7.65	49.57	50	20	0.01	0.836	0.829	0.86	
Acenaphthene-d10	1	0	I	8.15	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.41	47.58	50	20	0.01	0.571	0.543	4.84	
Hexachlorocyclopentadiene	1	0		7.40	46.59	50	20	0.05	0.294	0.274	6.81	
2,4,6-Trichlorophenol	1	0		7.50	49.60	50	20	0.2	0.333	0.331	0.79	
2,4,5-Trichlorophenol	1	0		7.54	50.11	50	20	0.2	0.363	0.364	0.22	
2-Fluorobiphenyl	1	0	S	7.56	24.26	25	**		1.262	1.224	2.96	
2-Chloronaphthalene	1	0		7.67	48.52	50	20	0.8	1.048	1.017	2.96	
1,4-Dimethylnaphthalene	1	0		7.95	49.43	50	**		0.820	0.811	1.15	
Dimethylnaphthalenes	1	0		7.95	49.43	50	20			0.811	1.15	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 5M101508.D **Instrument:** GCMS 5

Cont Calibration Date/Time 11/14/2017 9:01:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.73	48.89	50	**		0.792	0.774	2.22	
2-Nitroaniline	1	0		7.75	52.10	50	20	0.01	0.368	0.383	4.20	
Coumarin	1	0		7.93	51.95		**		0.420			
Acenaphthylene	1	0		8.03	49.89	50	20	0.9	1.598	1.594	0.23	
Dimethylphthalate	1	0		7.90	50.49	50	20	0.01	1.245	1.257	0.98	
2,6-Dinitrotoluene	1	0		7.95	52.25	50	20	0.2	0.268	0.280	4.50	
Acenaphthene	1	0		8.18	50.00	50	20	0.9	1.082	1.081	0.00	
3-Nitroaniline	1	0		8.10	58.07	50	20	0.01	0.275	0.319	16.15	
2,4-Dinitrophenol	1	0		8.19	39.95	50	20	0.01	0.145	0.121	20.11	
Dibenzofuran	1	0		8.33	50.74	50	20	0.8	1.616	1.528	1.48	
2,4-Dinitrotoluene	1	0		8.30	51.45	50	20	0.2	0.379	0.390	2.91	
4-Nitrophenol	1	0		8.24	50.67	50	20	0.01	0.219	0.225	1.35	
2,3,4,6-Tetrachlorophenol	1	0		8.44	53.68	50	20	0.01	0.317	0.340	7.35	
Fluorene	1	0		8.65	49.92	50	20	0.9	1.239	1.237	0.16	
4-Chlorophenyl-phenylether	1	0		8.64	48.83	50	20	0.4	0.621	0.606	2.35	
Diethylphthalate	1	0		8.52	50.34	50	20	0.01	1.230	1.238	0.69	
4-Nitroaniline	1	0		8.66	54.72	50	20	0.01	0.342	0.374	9.44	
Atrazine	1	0		9.28	52.43	50	20	0.01	0.350	0.367	4.86	
Phenanthrene-d10	1	0	I	9.60	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.69	44.65	50	20	0.01	0.121	0.115	10.70	
n-Nitrosodiphenylamine	1	0		8.75	48.88	50	20	0.01	0.592	0.579	2.24	
2,4,6-Tribromophenol	1	0	S	8.88	47.63	50	**		0.092	0.095	4.74	
1,2-Diphenylhydrazine	1	0		8.80	49.17	50	**		0.676	0.664	1.66	
4-Bromophenyl-phenylether	1	0		9.13	49.12	50	20	0.1	0.199	0.195	1.76	
Hexachlorobenzene	1	0		9.20	48.65	50	20	0.1	0.211	0.205	2.71	
N-Octadecane	1	0		9.47	49.98	50	**	0.05	0.408	0.408	0.04	
Pentachlorophenol	1	0		9.39	43.96	50	20	0.05	0.122	0.114	12.08	
Phenanthrene	1	0		9.62	49.88	50	20	0.7	1.067	1.064	0.24	
Anthracene	1	0		9.68	50.14	50	20	0.7	1.079	1.082	0.28	
Carbazole	1	0		9.84	51.88	50	20	0.01	0.991	1.029	3.76	
Di-n-butylphthalate	1	0		10.23	53.15	50	20	0.01	1.117	1.188	6.31	
Fluoranthene	1	0		10.95	52.29	50	20	0.6	1.199	1.254	4.58	
Chrysene-d12	1	0	I	12.64	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.21	49.35	50	20	0.6	1.069	1.055	1.30	
Benzidine	1	0		11.10	36.29	50	**		0.375	0.385	27.43	
Terphenyl-d14	1	0	S	11.40	24.29	25	**		0.643	0.624	2.86	
4,4'-DDE	1	0		11.34	47.95		**		0.225			
4,4'-DDD	1	0		11.73	50.90		**		0.423			
Butylbenzylphthalate	1	0		11.99	51.86	50	20	0.01	0.436	0.472	3.72	
4,4'-DDT	1	0		12.09	52.54		**		0.352			
3,3'-Dichlorobenzidine	1	0		12.60	56.06	50	20	0.01	0.275	0.358	12.12	
Benzo[a]anthracene	1	0		12.63	49.80	50	20	0.8	1.050	1.046	0.40	
Chrysene	1	0		12.67	49.67	50	20	0.7	1.023	1.016	0.66	
bis(2-Ethylhexyl)phthalate	1	0		12.69	48.40	50	20	0.01	0.612	0.644	3.19	
Perylene-d12	1	0	I	14.25	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.43	50.23	50	20	0.01	1.106	1.173	0.46	
Benzo[b]fluoranthene	1	0		13.84	49.84	50	20	0.7	1.089	1.085	0.32	
Benzo[k]fluoranthene	1	0		13.87	48.03	50	20	0.7	1.059	1.017	3.95	
Benzo[a]pyrene	1	0		14.19	51.56	50	20	0.7	1.029	1.061	3.11	
Indeno[1,2,3-cd]pyrene	1	0		15.51	54.60	50	20	0.5	1.068	1.166	9.21	
Dibenzo[a,h]anthracene	1	0		15.53	54.67	50	20	0.4	0.916	1.002	9.35	
Benzo[g,h,i]perylene	1	0		15.86	54.32	50	20	0.5	0.886	0.963	8.65	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 5M101508.D **Instrument:** GCMS 5

Cont Calibration Date/Time 11/14/2017 9:01:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			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	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.688	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	
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	**		0.820	0.000	100.00	
4-Methylphenol	1	100		0.00	0.00	50	**	0.6		0.000	100.00	
Heptachlor	1	100		0.00	0.00	10	**			0.000	100.00	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101508.D Sam Mult : 1 Vial# : 2 Qt On : 11/14/17 09:27
Acq On : 11/14/17 09:01 Misc : A,BNA Qt Upd On: 10/20/17 15:15

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	31105	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	69520	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	292823	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	190142	40.00	ng	0.00
77) Phenanthrene-d10	9.597	188	361044	40.00	ng	0.00
91) Chrysene-d12	12.643	240	450922	40.00	ng	0.00
103) Perylene-d12	14.245	264	427480	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	109065	51.63	ng	0.00
Spiked Amount 100.000			Recovery = 51.63%			
16) Phenol-d5	5.409	99	144444	53.93	ng	0.01
Spiked Amount 100.000			Recovery = 53.93%			
32) Nitrobenzene-d5	6.168	128	27653	24.87	ng	0.00
Spiked Amount 50.000			Recovery = 49.74%			
55) 2-Fluorobiphenyl	7.562	172	145514	24.26	ng	0.00
Spiked Amount 50.000			Recovery = 48.52%			
80) 2,4,6-Tribromophenol	8.882	330	42782	47.63	ng	0.00
Spiked Amount 100.000			Recovery = 47.63%			
94) Terphenyl-d14	11.398	244	175986	24.28	ng	0.00
Spiked Amount 50.000			Recovery = 48.56%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.460	88	44064	54.1258	ng	94
9) Pyridine	2.904	79	121610	50.6683	ng	74
10) N-Nitrosodimethylamine	2.824	74	72204	55.1278	ng	74
12) Benzaldehyde	5.329	77	28487	28.6592	ng	79
13) Aniline	5.425	93	173002	59.3735	ng	45
14) Pentachloroethane	5.468	117	36208	51.5182	ng	79
15) bis(2-Chloroethyl)ether	5.489	93	116710	51.7171	ng	83
17) Phenol	5.420	94	168979	54.7024	ng	95
18) 2-Chlorophenol	5.532	128	123955	53.6367	ng	84
19) N-Decane	5.585	57	121256	52.8578	ng	89
20) 1,3-Dichlorobenzene	5.666	146	126255	52.9244	ng	97
22) 1,4-Dichlorobenzene	5.730	146	128574	49.4972	ng	97
23) 1,2-Dichlorobenzene	5.853	146	124180	49.6595	ng	98
24) Benzyl alcohol	5.831	108	82942	51.9338	ng	74
25) bis(2-chloroisopropyl)...	5.943	45	172447	50.3543	ng	97
26) 2-Methylphenol	5.927	108	117862	51.4906	ng	96
27) Acetophenone	6.045	105	182300	52.5270	ng	64
28) Hexachloroethane	6.136	117	48663	49.6355	ng	91
29) N-Nitroso-di-n-propyla...	6.045	70	90212	51.3205	ng	73
30) 3&4-Methylphenol	6.056	108	124085	53.1548	ng	99
33) Nitrobenzene	6.178	77	126638	50.0465	ng	81
34) Isophorone	6.371	82	242706	51.3864	ng	89
35) 2-Nitrophenol	6.435	139	67456	53.1222	ng	84
36) 2,4-Dimethylphenol	6.467	107	128065	50.2425	ng	95
37) Benzoic Acid	6.558	105	112516	48.3003	ng	88
38) bis(2-Chloroethoxy)met...	6.536	93	146175	49.3660	ng	98
39) 2,4-Dichlorophenol	6.622	162	105626	51.3783	ng	89
40) 1,2,4-Trichlorobenzene	6.686	180	115288	49.6281	ng	97
41) Naphthalene	6.745	128	367694	50.3095	ng	100
42) 4-Chloroaniline	6.782	127	146892m	52.3816	ng	
43) Hexachlorobutadiene	6.841	225	64977	47.6603	ng	97
44) Caprolactam	7.060	113	48010	58.0253	ng	71
45) 4-Chloro-3-methylphenol	7.151	107	112831	51.1298	ng	86
46) 2-Methylnaphthalene	7.279	142	256971	50.1695	ng	97
47) 1-Methylnaphthalene	7.354	142	248345	49.9969	ng	93
48) Methylnaphthalenes (To...	7.279	142	505654m	100.4513	ng	
49) 1,1'-Biphenyl	7.648	154	303403	49.5681	ng	95
51) 1,2,4,5-Tetrachloroben...	7.412	216	129131	47.5810	ng	96
52) Hexachlorocyclopentadiene	7.402	237	65166	46.5940	ng	100
53) 2,4,6-Trichlorophenol	7.498	196	78622	49.6030	ng	99
54) 2,4,5-Trichlorophenol	7.535	196	86532	50.1114	ng	99
56) 2-Chloronaphthalene	7.669	162	241799	48.5200	ng	92
57) 1,4-Dimethylnaphthalene	7.952	156	192716	49.4273	ng	87
58) Dimethylnaphthalenes (...	7.952	156	192716	49.4273	ng	87
59) Diphenyl Ether	7.733	170	184001	48.8886	ng	78
60) 2-Nitroaniline	7.749	65	91023	52.1001	ng	51
61) Coumarin	7.931	146	103726	51.9498	ng	78
62) Acenaphthylene	8.027	152	378964	49.8863	ng	99
63) Dimethylphthalate	7.899	163	298862	50.4881	ng	99
64) 2,6-Dinitrotoluene	7.952	165	66514	52.2514	ng	60
65) Acenaphthene	8.176	153	257039	49.9981	ng	96

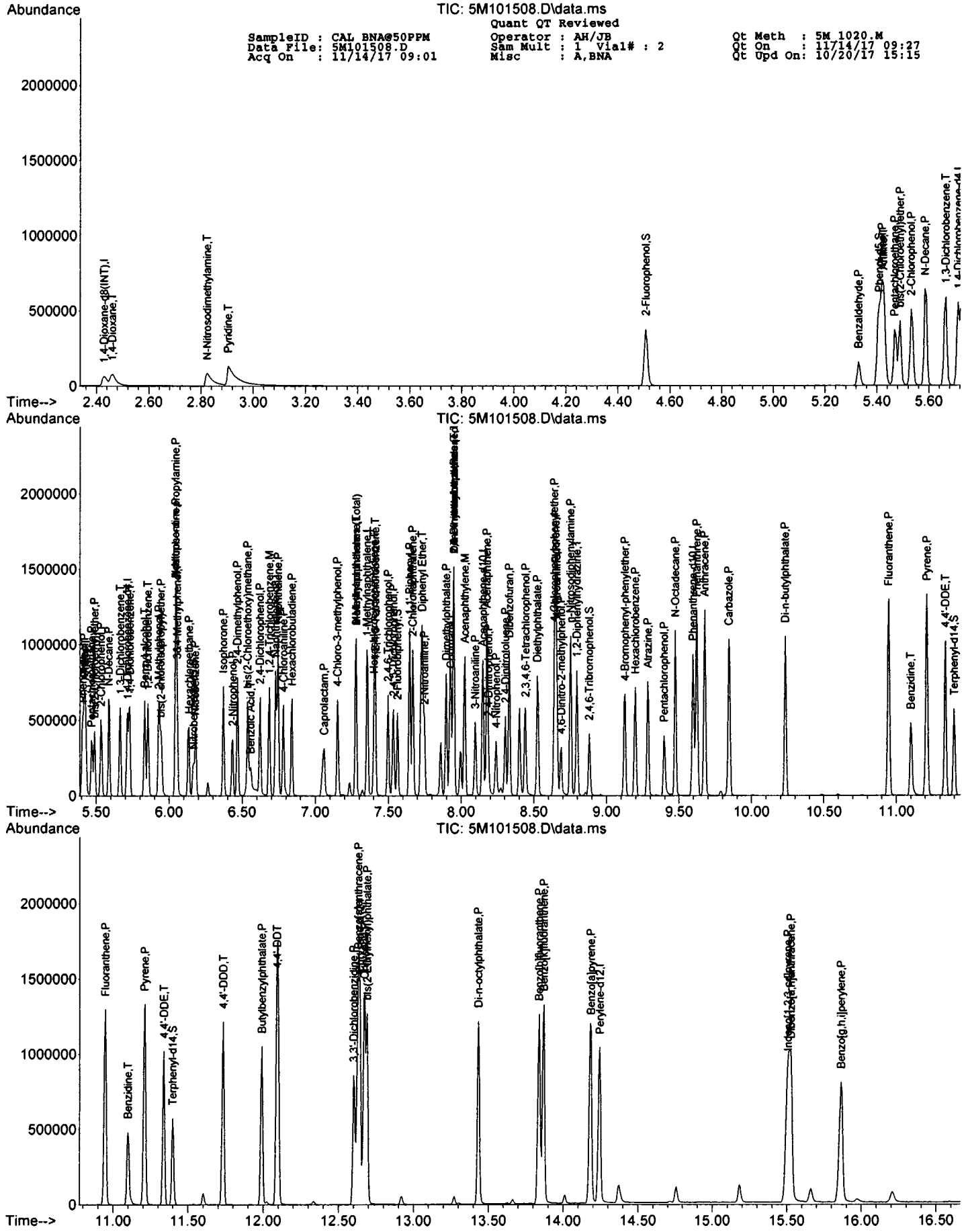
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101508.D Sam Mult : 1 Vial# : 2 Qt On : 11/14/17 09:27
Acq On : 11/14/17 09:01 Misc : A,BNA Qt Upd On: 10/20/17 15:15

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.096	138	75800	58.0739	ng	79
67)	2,4-Dinitrophenol	8.187	184	28801	39.9453	ng	48
68)	Dibenzofuran	8.331	168	363140	50.7385	ng	85
69)	2,4-Dinitrotoluene	8.305	165	92796	51.4535	ng	62
70)	4-Nitrophenol	8.241	65	53528	50.6742	ng	88
71)	2,3,4,6-Tetrachlorophenol	8.444	232	80847	53.6759	ng	79
72)	Fluorene	8.652	166	294122	49.9212	ng	100
73)	4-Chlorophenyl-phenyle...	8.641	204	144091	48.8270	ng	83
74)	Diethylphthalate	8.524	149	294282	50.3435	ng	97
75)	4-Nitroaniline	8.657	138	88841	54.7223	ng	75
76)	Atrazine	9.282	200	87119	52.4284	ng	98
78)	4,6-Dinitro-2-methylph...	8.689	198	51845	44.6487	ng	70
79)	n-Nitrosodiphenylamine	8.753	169	261324	48.8782	ng	98
81)	1,2-Diphenylhydrazine	8.796	77	299829	49.1681	ng	84
82)	4-Bromophenyl-phenylether	9.127	248	88110	49.1194	ng	82
83)	Hexachlorobenzene	9.197	284	92634	48.6458	ng	65
84)	N-Octadecane	9.475	57	184261	49.9776	ng	81
85)	Pentachlorophenol	9.394	266	51420	43.9609	ng	95
86)	Phenanthrene	9.624	178	480213	49.8817	ng	99
87)	Anthracene	9.678	178	488527	50.1392	ng	100
88)	Carbazole	9.843	167	464233	51.8822	ng	98
89)	Di-n-butylphthalate	10.233	149	536022	53.1545	ng	97
90)	Fluoranthene	10.949	202	565874	52.2895	ng	91
92)	Pyrene	11.211	202	594538	49.3517	ng	89
93)	Benzidine	11.099	184	217150	36.2873	ng	89
95)	4,4'-DDE	11.339	246	121675	47.9524	ng	95
96)	4,4'-DDD	11.734	235	242572	50.9036	ng	97
97)	Butylbenzylphthalate	11.991	149	266188	51.8597	ng	72
98)	4,4'-DDT	12.092	235	208236	52.5384	ng	98
99)	3,3'-Dichlorobenzidine	12.600	252	201893	56.0621	ng	97
100)	Benzo[a]anthracene	12.632	228	589391	49.8018	ng	99
101)	Chrysene	12.675	228	572911	49.6703	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.691	149	363213	48.4047	ng	93
104)	Di-n-octylphthalate	13.433	149	626802	50.2316	ng	100
105)	Benzo[b]fluoranthene	13.839	252	579929	49.8418	ng	93
106)	Benzo[k]fluoranthene	13.871	252	543542m	48.0274	ng	
107)	Benzo[a]pyrene	14.186	252	567113	51.5574	ng	91
108)	Indeno[1,2,3-cd]pyrene	15.506	276	622956	54.6035	ng	83
109)	Dibenzo[a,h]anthracene	15.527	278	535164	54.6741	ng	88
110)	Benzo[g,h,i]perylene	15.864	276	514664	54.3244	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101508.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 5M101508.D
Acq On : 11/14/17 09:01
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 11/14/17 09:27
Qt Upd On: 10/20/17 15:15
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->
Abundance
TIC: 5M101508.D\data.ms
Isophorone,P
2-Nitrophenol,P
2,4-Dimethylphenol,P
Benzoic Acid,P
2,4-Dichlorophenol,P
Caprolactam,P
4-Chloro-3-methylphenol,P
4-Chloroaniline,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
Fluorene,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
Time-->
Abundance
TIC: 5M101508.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
3,3'-Dichlorobenzidine,P
Di-n-octylphthalate,P
Benzo(b)fluoranthene,P
Benzo(k)fluoranthene,P
Benzo(a)pyrene,P
Perylene-d12,I
Indeno(1,2,3-cd)pyrene,P
Dibenz(a,h)anthracene,P
Benzo(g,h,i)perylene,P
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87624.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/14/2017 9:03:00 Method: EPA 8270D

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		2.60	52.03	50	**		1.171	1.080	4.05	
Pyridine	1	0		3.07	50.45	50	**		2.828	2.854	0.90	
N-Nitrosodimethylamine	1	0		2.99	49.00	50	**		1.682	1.648	2.01	
2-Fluorophenol	1	0	S	4.61	51.36	50	**		2.421	2.487	2.73	
Benzaldehyde	1	0		5.44	24.45	50	20	0.01	1.288	0.694	51.10	C1
Aniline	1	0		5.54	52.13	50	**		3.131	3.763	4.26	
Pentachloroethane	1	0		5.57	50.95	50	**	0.05	0.808	0.823	1.89	
bis(2-Chloroethyl)ether	1	0		5.59	48.91	50	20	0.7	2.706	2.647	2.19	
Phenol-d5	1	0	S	5.50	51.79	50	**		3.098	3.209	3.57	
Phenol	1	0		5.51	51.72	50	20	0.8	3.618	3.743	3.44	
2-Chlorophenol	1	0		5.63	52.15	50	20	0.8	2.558	2.669	4.31	
N-Decane	1	0		5.68	51.94	50	**	0.05	2.360	2.452	3.87	
1,3-Dichlorobenzene	1	0		5.77	50.36	50	**		2.603	2.621	0.71	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	49.60	50	20		1.428	1.416	0.80	
1,2-Dichlorobenzene	1	0		5.95	49.38	50	**		1.373	1.356	1.24	
Benzyl alcohol	1	0		5.93	51.52	50	**		0.919	0.947	3.04	
bis(2-chloroisopropyl)ether	1	0		6.04	51.70	50	20	0.01	1.706	1.764	3.40	
2-Methylphenol	1	0		6.02	51.38	50	20	0.7	1.288	1.324	2.75	
Acetophenone	1	0		6.15	51.58	50	20	0.01	1.984	2.047	3.17	
Hexachloroethane	1	0		6.23	50.17	50	20	0.3	0.557	0.559	0.34	
N-Nitroso-di-n-propylamine	1	0		6.14	53.53	50	20	0.5	0.962	0.986	7.05	
3&4-Methylphenol	1	0		6.14	53.31	50	20		1.275	1.359	6.62	
Naphthalene-d8	1	0	I	6.82	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.27	25.49	25	**		0.161	0.164	1.96	
Nitrobenzene	1	0		6.28	50.63	50	20	0.2	0.357	0.362	1.27	
Isophorone	1	0		6.47	51.71	50	20	0.4	0.667	0.689	3.43	
2-Nitrophenol	1	0		6.53	54.09	50	20	0.1	0.171	0.192	8.17	
2,4-Dimethylphenol	1	0		6.56	52.15	50	20	0.2	0.337	0.352	4.31	
Benzoic Acid	1	0		6.63	33.90	50	**		0.311	0.229	32.21	
bis(2-Chloroethoxy)methane	1	0		6.63	50.15	50	20	0.3	0.421	0.422	0.29	
2,4-Dichlorophenol	1	0		6.71	53.63	50	20	0.2	0.258	0.277	7.26	
1,2,4-Trichlorobenzene	1	0		6.78	49.73	50	**		0.293	0.291	0.54	
Naphthalene	1	0		6.85	46.88	50	20	0.7	1.069	1.002	6.24	
4-Chloroaniline	1	0		6.88	54.06	50	20	0.01	0.290	0.386	8.11	
Hexachlorobutadiene	1	0		6.93	50.00	50	20	0.01	0.150	0.150	0.00	
Caprolactam	1	0		7.16	52.33	50	20	0.01	0.133	0.138	4.66	
4-Chloro-3-methylphenol	1	0		7.24	52.56	50	20	0.2	0.298	0.314	5.12	
2-Methylnaphthalene	1	0		7.38	49.90	50	**	0.4	0.692	0.691	0.20	
1-Methylnaphthalene	1	0		7.46	49.78	50	**	0.4	0.662	0.660	0.43	
Methylnaphthalenes	1	0		7.38	99.66	100	**			0.675	0.34	
1,1'-Biphenyl	1	0		7.75	49.74	50	20	0.01	0.813	0.809	0.52	
Acenaphthene-d10	1	0	I	8.26	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.51	49.64	50	20	0.01	0.504	0.500	0.72	
Hexachlorocyclopentadiene	1	0		7.50	51.16	50	20	0.05	0.283	0.289	2.33	
2,4,6-Trichlorophenol	1	0		7.60	49.23	50	20	0.2	0.315	0.324	1.54	
2,4,5-Trichlorophenol	1	0		7.63	54.79	50	20	0.2	0.323	0.354	9.57	
2-Fluorobiphenyl	1	0	S	7.66	24.74	25	**		1.244	1.231	1.03	
2-Chloronaphthalene	1	0		7.78	48.63	50	20	0.8	1.066	1.037	2.74	
1,4-Dimethylnaphthalene	1	0		8.05	50.89	50	**		0.826	0.841	1.78	
Dimethylnaphthalenes	1	0		8.05	50.89	50	20			0.841	1.78	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87624.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/14/2017 9:03:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.83	50.41	50	**		0.793	0.800	0.81	
2-Nitroaniline	1	0		7.85	53.41	50	20	0.01	0.372	0.398	6.82	
Coumarin	1	0		8.04	49.73		**		0.442			
Acenaphthylene	1	0		8.13	49.81	50	20	0.9	1.657	1.651	0.38	
Dimethylphthalate	1	0		7.99	49.52	50	20	0.01	1.229	1.217	0.96	
2,6-Dinitrotoluene	1	0		8.05	53.27	50	20	0.2	0.267	0.285	6.54	
Acenaphthene	1	0		8.28	48.73	50	20	0.9	1.085	1.057	2.53	
3-Nitroaniline	1	0		8.20	54.11	50	20	0.01	0.281	0.334	8.22	
2,4-Dinitrophenol	1	0		8.29	56.90	50	20	0.01	0.124	0.155	13.81	
Dibenzofuran	1	0		8.44	51.20	50	20	0.8	1.634	1.540	2.40	
2,4-Dinitrotoluene	1	0		8.41	51.37	50	20	0.2	0.375	0.400	2.74	
4-Nitrophenol	1	0		8.33	49.83	50	20	0.01	0.230	0.248	0.34	
2,3,4,6-Tetrachlorophenol	1	0		8.55	47.58	50	20	0.01	0.285	0.283	4.84	
Fluorene	1	0		8.76	49.90	50	20	0.9	1.249	1.246	0.21	
4-Chlorophenyl-phenylether	1	0		8.75	50.29	50	20	0.4	0.580	0.583	0.58	
Diethylphthalate	1	0		8.63	49.44	50	20	0.01	1.275	1.261	1.13	
4-Nitroaniline	1	0		8.77	49.94	50	20	0.01	0.350	0.361	0.11	
Atrazine	1	0		9.39	50.71	50	20	0.01	0.315	0.319	1.43	
Phenanthrene-d10	1	0	I	9.71	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.79	57.12	50	20	0.01	0.103	0.125	14.24	
n-Nitrosodiphenylamine	1	0		8.86	51.62	50	20	0.01	0.602	0.621	3.25	
2,4,6-Tribromophenol	1	0	S	8.99	53.47	50	**		0.079	0.089	6.94	
1,2-Diphenylhydrazine	1	0		8.90	50.42	50	**		0.723	0.729	0.85	
4-Bromophenyl-phenylether	1	0		9.24	51.49	50	20	0.1	0.189	0.194	2.98	
Hexachlorobenzene	1	0		9.30	50.01	50	20	0.1	0.199	0.199	0.02	
N-Octadecane	1	0		9.57	55.19	50	**	0.05	0.398	0.440	10.38	
Pentachlorophenol	1	0		9.50	43.42	50	20	0.05	0.114	0.102	13.16	
Phenanthrene	1	0		9.74	49.40	50	20	0.7	1.052	1.040	1.20	
Anthracene	1	0		9.80	50.35	50	20	0.7	1.055	1.062	0.70	
Carbazole	1	0		9.97	50.80	50	20	0.01	1.010	1.026	1.60	
Di-n-butylphthalate	1	0		10.34	54.58	50	20	0.01	1.147	1.252	9.17	
Fluoranthene	1	0		11.07	50.17	50	20	0.6	1.167	1.171	0.34	
Chrysene-d12	1	0	I	12.77	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.33	53.72	50	20	0.6	1.114	1.196	7.44	
Benzidine	1	0		11.23	40.56	50	**		0.322	0.384	18.89	
Terphenyl-d14	1	0	S	11.52	26.58	25	**		0.619	0.658	6.33	
4,4'-DDE	1	0		11.45	52.70		**		0.214			
4,4'-DDD	1	0		11.85	54.49		**		0.412			
Butylbenzylphthalate	1	0		12.10	55.17	50	20	0.01	0.502	0.568	10.35	
4,4'-DDT	1	0		12.21	59.39		**		0.325			
3,3'-Dichlorobenzidine	1	0		12.73	63.13	50	20	0.01	0.258	0.389	26.25	C1
Benzo[a]anthracene	1	0		12.75	50.67	50	20	0.8	1.049	1.063	1.33	
Chrysene	1	0		12.80	49.78	50	20	0.7	0.975	0.970	0.45	
bis(2-Ethylhexyl)phthalate	1	0		12.80	58.15	50	20	0.01	0.648	0.754	16.30	
Perylene-d12	1	0	I	14.39	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.55	58.69	50	20	0.01	1.172	1.457	17.37	
Benzo[b]fluoranthene	1	0		13.97	50.90	50	20	0.7	1.051	1.070	1.79	
Benzo[k]fluoranthene	1	0		14.00	49.42	50	20	0.7	1.060	1.047	1.16	
Benzo[a]pyrene	1	0		14.33	52.24	50	20	0.7	1.023	1.069	4.48	
Indeno[1,2,3-cd]pyrene	1	0		15.70	51.61	50	20	0.5	1.064	1.098	3.21	
Dibenzo[a,h]anthracene	1	0		15.73	52.60	50	20	0.4	0.880	0.926	5.20	
Benzo[g,h,i]perylene	1	0		16.08	49.74	50	20	0.5	0.908	0.903	0.51	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87624.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/14/2017 9:03:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial 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	**		0.677	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	**		0.826	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 I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87624.D Sam Mult : 1 Vial# : 2 Qt On : 11/14/17 09:19
Acq On : 11/14/17 09:03 Misc : A,BNA Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\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)	2.562	96	56796	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	106395	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	432005	40.00	ng	0.00
50) Acenaphthene-d10	8.257	164	261982	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	469374	40.00	ng	0.00
91) Chrysene-d12	12.765	240	478725	40.00	ng	0.00
103) Perylene-d12	14.389	264	444662	40.00	ng	-0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	176590	51.36	ng	0.00
Spiked Amount 100.000			Recovery = 51.36%			
16) Phenol-d5	5.500	99	227840	51.79	ng	0.00
Spiked Amount 100.000			Recovery = 51.79%			
32) Nitrobenzene-d5	6.269	128	44365	25.49	ng	0.00
Spiked Amount 50.000			Recovery = 50.98%			
55) 2-Fluorobiphenyl	7.664	172	201565	24.74	ng	-0.01
Spiked Amount 50.000			Recovery = 49.48%			
80) 2,4,6-Tribromophenol	8.994	330	52372	53.47	ng	0.00
Spiked Amount 100.000			Recovery = 53.47%			
94) Terphenyl-d14	11.515	244	196770	26.58	ng	0.00
Spiked Amount 50.000			Recovery = 53.16%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	76685	52.0270	ng	99
9) Pyridine	3.075	79	202606	50.4494	ng	68
10) N-Nitrosodimethylamine	2.994	74	117006	48.9960	ng	72
12) Benzaldehyde	5.441	77	49265	24.4478	ng	76
13) Aniline	5.537	93	267154	52.1307	ng	13
14) Pentachloroethane	5.575	117	58419	50.9462	ng	87
15) bis(2-Chloroethyl)ether	5.591	93	187929	48.9054	ng	81
17) Phenol	5.511	94	265717	51.7212	ng	81
18) 2-Chlorophenol	5.634	128	189452	52.1548	ng	82
19) N-Decane	5.676	57	174060	51.9366	ng	94
20) 1,3-Dichlorobenzene	5.767	146	186102	50.3568	ng	99
22) 1,4-Dichlorobenzene	5.831	146	188372	49.6024	ng	98
23) 1,2-Dichlorobenzene	5.954	146	180358	49.3779	ng	98
24) Benzyl alcohol	5.927	108	126004	51.5213	ng	76
25) bis(2-chloroisopropyl)...	6.040	45	234591	51.7020	ng	98
26) 2-Methylphenol	6.018	108	176056	51.3768	ng	97
27) Acetophenone	6.146	105	272196	51.5845	ng	70
28) Hexachloroethane	6.232	117	74349	50.1707	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	131131	53.5272	ng	82
30) 3&4-Methylphenol	6.141	108	180725	53.3084	ng	98
33) Nitrobenzene	6.280	77	195360	50.6336	ng	82
34) Isophorone	6.467	82	372266	51.7126	ng	88
35) 2-Nitrophenol	6.531	139	103796	54.0866	ng	84
36) 2,4-Dimethylphenol	6.558	107	190081	52.1525	ng	94
37) Benzoic Acid	6.633	105	123851	33.8958	ng	50
38) bis(2-Chloroethoxy)met...	6.633	93	227986	50.1454	ng	95
39) 2,4-Dichlorophenol	6.713	162	149682	53.6295	ng	90
40) 1,2,4-Trichlorobenzene	6.782	180	157253	49.7277	ng	97
41) Naphthalene	6.846	128	541056	46.8800	ng	99
42) 4-Chloroaniline	6.878	127	208479m	54.0566	ng	
43) Hexachlorobutadiene	6.932	225	80857	49.9984	ng	98
44) Caprolactam	7.156	113	74497	52.3294	ng	68
45) 4-Chloro-3-methylphenol	7.242	107	169321	52.5610	ng	83
46) 2-Methylnaphthalene	7.380	142	372879	49.9014	ng	99
47) 1-Methylnaphthalene	7.461	142	356146	49.7834	ng	92
48) Methylnaphthalenes (To...	7.380	142	728614m	99.6552	ng	
49) 1,1'-Biphenyl	7.749	154	436709	49.7396	ng	97
51) 1,2,4,5-Tetrachloroben...	7.509	216	163824	49.6416	ng	98
52) Hexachlorocyclopentadiene	7.498	237	94697	51.1646	ng	99
53) 2,4,6-Trichlorophenol	7.599	196	105954	49.2296	ng	100
54) 2,4,5-Trichlorophenol	7.632	196	115959	54.7865	ng	99
56) 2-Chloronaphthalene	7.776	162	339439	48.6305	ng	92
57) 1,4-Dimethylnaphthalene	8.054	156	275429	50.8894	ng	86
58) Dimethylnaphthalenes (...	8.054	156	275429	50.8894	ng	86
59) Diphenyl Ether	7.835	170	261917	50.4058	ng	79
60) 2-Nitroaniline	7.851	65	130262	53.4084	ng	57
61) Coumarin	8.038	146	144060	49.7286	ng	77
62) Acenaphthylene	8.134	152	540523	49.8110	ng	99
63) Dimethylphthalate	7.995	163	398525	49.5193	ng	99
64) 2,6-Dinitrotoluene	8.054	165	93191	53.2723	ng	63
65) Acenaphthene	8.283	153	346211	48.7329	ng	98

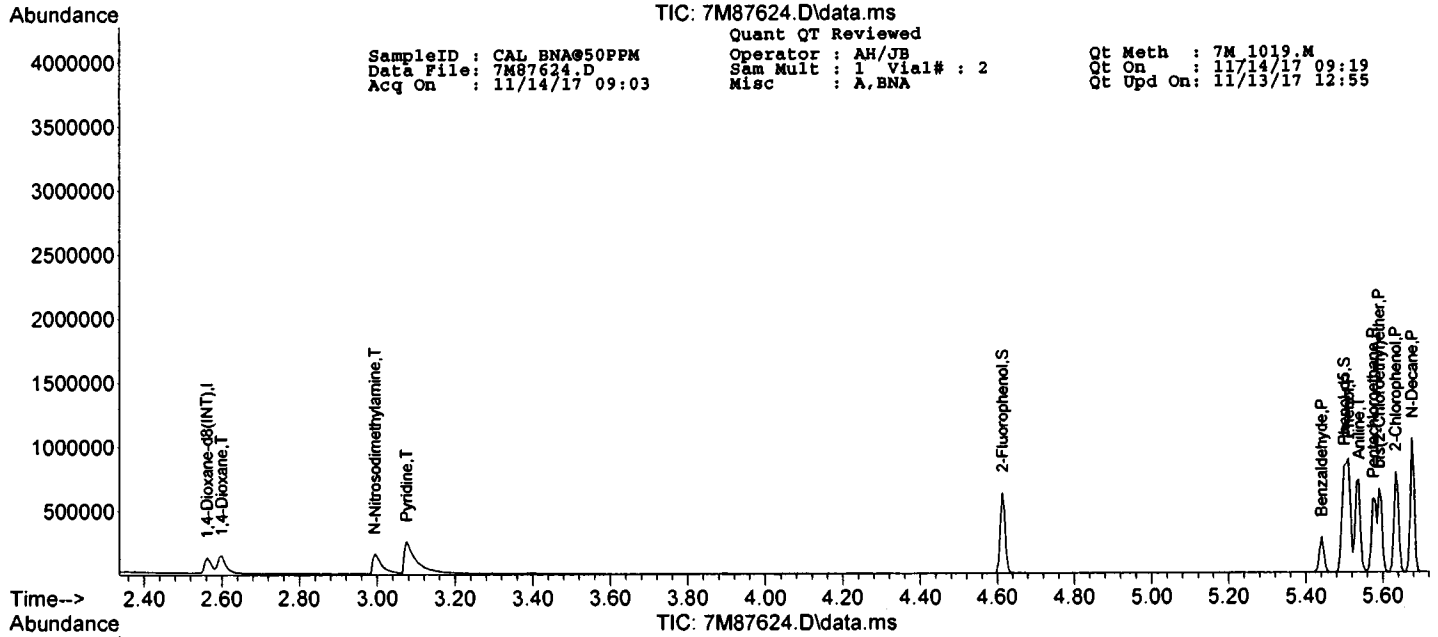
Quantitation Report (QT Reviewed)

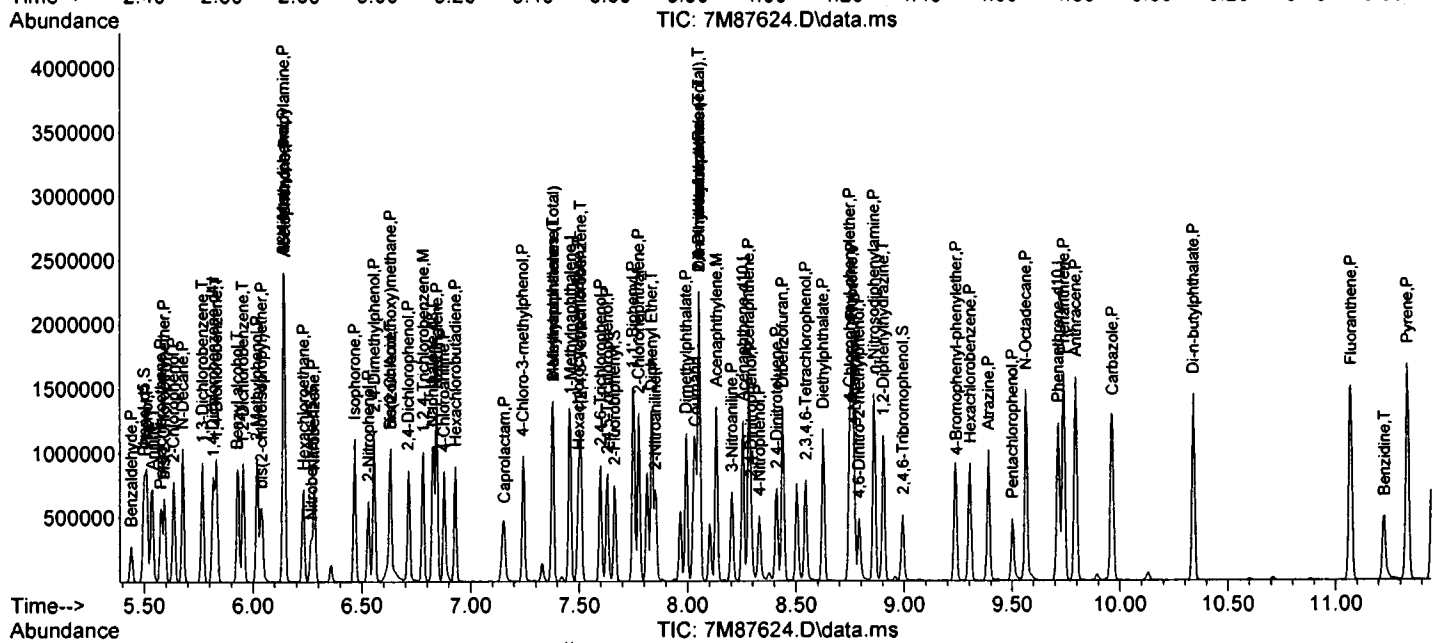
SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87624.D Sam Mult : 1 Vial# : 2 Qt On : 11/14/17 09:19
Acq On : 11/14/17 09:03 Misc : A,BNA Qt Upd On: 11/13/17 12:55

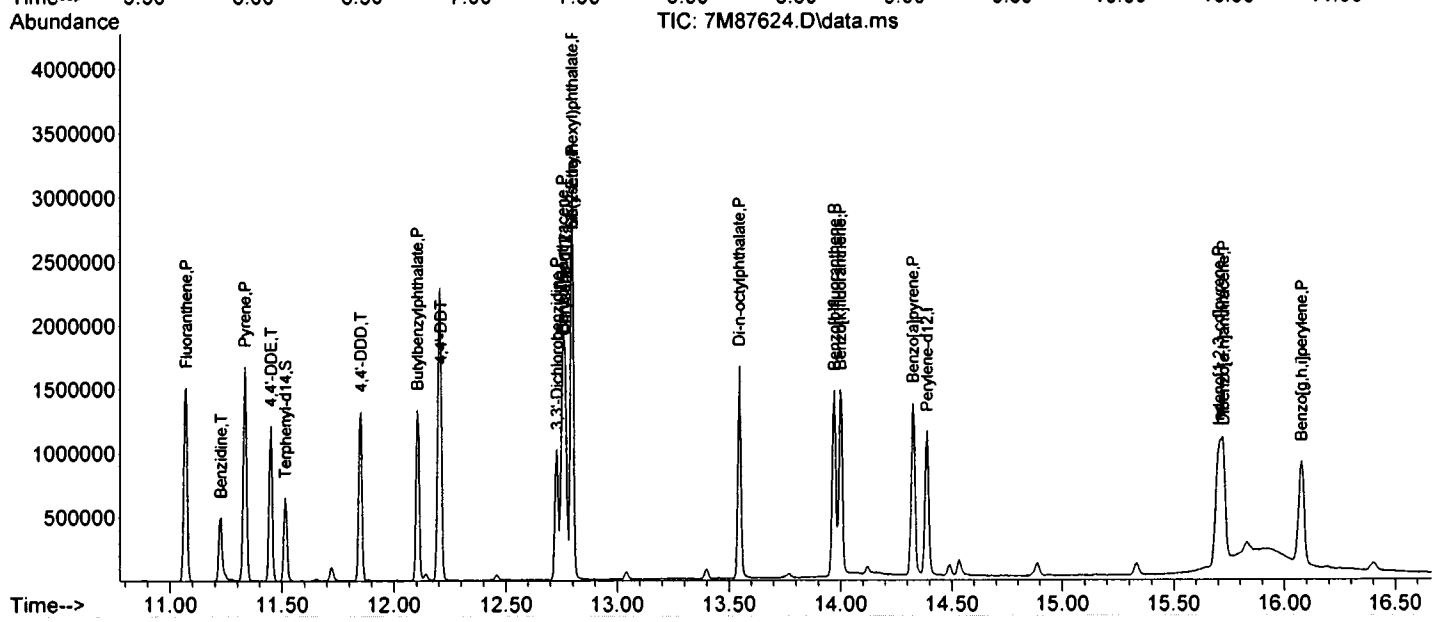
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.203	138	109298	54.1099	ng	78
67)	2,4-Dinitrophenol	8.294	184	50652	56.9028	ng	45
68)	Dibenzofuran	8.438	168	504373	51.2016	ng	84
69)	2,4-Dinitrotoluene	8.411	165	130848	51.3684	ng	61
70)	4-Nitrophenol	8.331	65	81175	49.8319	ng	94
71)	2,3,4,6-Tetrachlorophenol	8.545	232	92699	47.5781	ng	86
72)	Fluorene	8.759	166	408078	49.8958	ng	98
73)	4-Chlorophenyl-phenyle...	8.748	204	191080	50.2904	ng	83
74)	Diethylphthalate	8.625	149	412913	49.4366	ng	98
75)	4-Nitroaniline	8.769	138	118326	49.9444	ng	73
76)	Atrazine	9.389	200	104577	50.7128	ng	94
78)	4,6-Dinitro-2-methylph...	8.791	198	73131	57.1179	ng	60
79)	n-Nitrosodiphenylamine	8.860	169	364536	51.6229	ng	98
81)	1,2-Diphenylhydrazine	8.903	77	427709	50.4236	ng	87
82)	4-Bromophenyl-phenylether	9.240	248	113923	51.4876	ng	79
83)	Hexachlorobenzene	9.304	284	116651	50.0084	ng	65
84)	N-Octadecane	9.565	57	257970	55.1882	ng	79
85)	Pentachlorophenol	9.501	266	59695	43.4200	ng	98
86)	Phenanthrene	9.742	178	609997	49.4008	ng	98
87)	Anthracene	9.795	178	623164	50.3493	ng	100
88)	Carbazole	9.966	167	601794	50.7978	ng	97
89)	Di-n-butylphthalate	10.340	149	734772	54.5848	ng	97
90)	Fluoranthene	11.072	202	687058	50.1679	ng	92
92)	Pyrene	11.334	202	715975	53.7187	ng	93
93)	Benzidine	11.227	184	229920	40.5550	ng	90
95)	4,4'-DDE	11.451	246	134936	52.7017	ng	93
96)	4,4'-DDD	11.852	235	268464	54.4948	ng	96
97)	Butylbenzylphthalate	12.103	149	340189	55.1745	ng	77
98)	4,4'-DDT	12.210	235	231237	59.3888	ng	99
99)	3,3'-Dichlorobenzidine	12.728	252	232778	63.1262	ng	97
100)	Benzo[a]anthracene	12.755	228	636017	50.6656	ng	100
101)	Chrysene	12.797	228	580698	49.7762	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.797	149	451026	58.1493	ng	94
104)	Di-n-octylphthalate	13.545	149	810058	58.6865	ng	100
105)	Benzo[b]fluoranthene	13.973	252	594515	50.8960	ng	95
106)	Benzo[k]fluoranthene	13.999	252	582207	49.4178	ng	96
107)	Benzo[a]pyrene	14.325	252	594238	52.2407	ng	96
108)	Indeno[1,2,3-cd]pyrene	15.704	276	610537	51.6067	ng	89
109)	Dibenzo[a,h]anthracene	15.725	278	514721	52.6003	ng	91
110)	Benzo[g,h,i]perylene	16.078	276	501882	49.7448	ng	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87624.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 7M87624.D
Acq On : 11/14/17 09:03
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 11/14/17 09:19
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Aniline,T
2-Chlorophenol,P
N-Decane,P
Time-->


Abundance
TIC: 7M87624.D\data.ms
Benzaldehyde,P
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dichlorophenol,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
2,4-Dinitrotoluene,P
Dibenzofuran,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 7M87624.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87651.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/15/2017 9:29:00 Method: EPA 8270D

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		2.60	51.27	50	**		1.171	1.064	2.55	
Pyridine	1	0		3.07	46.45	50	**		2.828	2.628	7.09	
N-Nitrosodimethylamine	1	0		2.99	47.03	50	**		1.682	1.582	5.95	
2-Fluorophenol	1	0	S	4.61	47.27	50	**		2.421	2.289	5.46	
Benzaldehyde	1	0		5.44	22.48	50	20	0.01	1.288	0.640	55.05	C1
Aniline	1	0		5.53	47.29	50	**		3.131	3.412	5.42	
Pentachloroethane	1	0		5.57	47.68	50	**	0.05	0.808	0.770	4.63	
bis(2-Chloroethyl)ether	1	0		5.59	43.96	50	20	0.7	2.706	2.380	12.08	
Phenol-d5	1	0	S	5.49	46.89	50	**		3.098	2.906	6.22	
Phenol	1	0		5.51	46.74	50	20	0.8	3.618	3.382	6.52	
2-Chlorophenol	1	0		5.63	47.53	50	20	0.8	2.558	2.432	4.93	
N-Decane	1	0		5.68	48.77	50	**	0.05	2.360	2.302	2.46	
1,3-Dichlorobenzene	1	0		5.77	46.56	50	**		2.603	2.424	6.87	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	49.22	50	20		1.428	1.406	1.56	
1,2-Dichlorobenzene	1	0		5.95	48.36	50	**		1.373	1.328	3.28	
Benzyl alcohol	1	0		5.93	49.35	50	**		0.919	0.907	1.31	
bis(2-chloroisopropyl)ether	1	0		6.04	48.77	50	20	0.01	1.706	1.664	2.45	
2-Methylphenol	1	0		6.02	49.08	50	20	0.7	1.288	1.265	1.85	
Acetophenone	1	0		6.14	49.29	50	20	0.01	1.984	1.956	1.42	
Hexachloroethane	1	0		6.23	49.67	50	20	0.3	0.557	0.553	0.66	
N-Nitroso-di-n-propylamine	1	0		6.14	49.27	50	20	0.5	0.962	0.910	1.47	
3&4-Methylphenol	1	0		6.14	50.82	50	20		1.275	1.296	1.64	
Naphthalene-d8	1	0	I	6.82	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.26	25.57	25	**		0.161	0.165	2.29	
Nitrobenzene	1	0		6.28	50.54	50	20	0.2	0.357	0.361	1.09	
Isophorone	1	0		6.47	50.63	50	20	0.4	0.667	0.675	1.27	
2-Nitrophenol	1	0		6.53	52.94	50	20	0.1	0.171	0.188	5.89	
2,4-Dimethylphenol	1	0		6.55	51.08	50	20	0.2	0.337	0.345	2.15	
Benzoic Acid	1	0		6.62	29.64	50	**		0.311	0.199	40.72	
bis(2-Chloroethoxy)methane	1	0		6.63	49.62	50	20	0.3	0.421	0.418	0.76	
2,4-Dichlorophenol	1	0		6.71	52.24	50	20	0.2	0.258	0.270	4.49	
1,2,4-Trichlorobenzene	1	0		6.78	49.65	50	**		0.293	0.291	0.70	
Naphthalene	1	0		6.84	51.71	50	20	0.7	1.069	1.007	3.43	
4-Chloroaniline	1	0		6.88	53.72	50	20	0.01	0.290	0.384	7.43	
Hexachlorobutadiene	1	0		6.93	50.23	50	20	0.01	0.150	0.150	0.46	
Caprolactam	1	0		7.15	49.83	50	20	0.01	0.133	0.131	0.34	
4-Chloro-3-methylphenol	1	0		7.24	51.39	50	20	0.2	0.298	0.307	2.78	
2-Methylnaphthalene	1	0		7.37	49.07	50	**	0.4	0.692	0.679	1.87	
1-Methylnaphthalene	1	0		7.46	48.80	50	**	0.4	0.662	0.646	2.41	
Methylnaphthalenes	1	0		7.37	98.06	100	**			0.664	1.94	
1,1'-Biphenyl	1	0		7.75	48.66	50	20	0.01	0.813	0.791	2.68	
Acenaphthene-d10	1	0	I	8.25	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.51	50.27	50	20	0.01	0.504	0.507	0.54	
Hexachlorocyclopentadiene	1	0		7.50	51.23	50	20	0.05	0.283	0.290	2.47	
2,4,6-Trichlorophenol	1	0		7.59	52.79	50	20	0.2	0.315	0.347	5.58	
2,4,5-Trichlorophenol	1	0		7.63	54.84	50	20	0.2	0.323	0.354	9.68	
2-Fluorobiphenyl	1	0	S	7.66	24.99	25	**		1.244	1.243	0.04	
2-Chloronaphthalene	1	0		7.77	49.28	50	20	0.8	1.066	1.050	1.44	
1,4-Dimethylnaphthalene	1	0		8.05	50.90	50	**		0.826	0.841	1.80	
Dimethylnaphthalenes	1	0		8.05	50.90	50	20			0.841	1.80	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87651.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/15/2017 9:29:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.83	49.61	50	**		0.793	0.787	0.79	
2-Nitroaniline	1	0		7.85	52.49	50	20	0.01	0.372	0.391	4.97	
Coumarin	1	0		8.03	49.93		**		0.442			
Acenaphthylene	1	0		8.13	50.46	50	20	0.9	1.657	1.672	0.93	
Dimethylphthalate	1	0		7.99	49.37	50	20	0.01	1.229	1.213	1.26	
2,6-Dinitrotoluene	1	0		8.05	52.94	50	20	0.2	0.267	0.283	5.89	
Acenaphthene	1	0		8.28	48.96	50	20	0.9	1.085	1.062	2.09	
3-Nitroaniline	1	0		8.20	55.18	50	20	0.01	0.281	0.340	10.35	
2,4-Dinitrophenol	1	0		8.29	49.73	50	20	0.01	0.124	0.133	0.53	
Dibenzofuran	1	0		8.44	51.72	50	20	0.8	1.634	1.556	3.44	
2,4-Dinitrotoluene	1	0		8.41	51.13	50	20	0.2	0.375	0.398	2.27	
4-Nitrophenol	1	0		8.33	49.50	50	20	0.01	0.230	0.246	0.99	
2,3,4,6-Tetrachlorophenol	1	0		8.54	48.72	50	20	0.01	0.285	0.290	2.56	
Fluorene	1	0		8.76	50.02	50	20	0.9	1.249	1.249	0.04	
4-Chlorophenyl-phenylether	1	0		8.75	49.89	50	20	0.4	0.580	0.579	0.21	
Diethylphthalate	1	0		8.63	49.30	50	20	0.01	1.275	1.257	1.40	
4-Nitroaniline	1	0		8.76	51.15	50	20	0.01	0.350	0.370	2.29	
Atrazine	1	0		9.39	50.61	50	20	0.01	0.315	0.319	1.23	
Phenanthrene-d10	1	0	I	9.71	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.79	53.66	50	20	0.01	0.103	0.117	7.32	
n-Nitrosodiphenylamine	1	0		8.86	51.20	50	20	0.01	0.602	0.616	2.40	
2,4,6-Tribromophenol	1	0	S	8.99	51.62	50	**		0.079	0.086	3.24	
1,2-Diphenylhydrazine	1	0		8.90	49.42	50	**		0.723	0.714	1.17	
4-Bromophenyl-phenylether	1	0		9.23	50.16	50	20	0.1	0.189	0.189	0.32	
Hexachlorobenzene	1	0		9.30	49.31	50	20	0.1	0.199	0.196	1.38	
N-Octadecane	1	0		9.57	53.47	50	**	0.05	0.398	0.426	6.94	
Pentachlorophenol	1	0		9.50	45.91	50	20	0.05	0.114	0.108	8.17	
Phenanthrene	1	0		9.74	48.80	50	20	0.7	1.052	1.027	2.41	
Anthracene	1	0		9.79	50.46	50	20	0.7	1.055	1.064	0.92	
Carbazole	1	0		9.96	50.04	50	20	0.01	1.010	1.010	0.08	
Di-n-butylphthalate	1	0		10.34	54.19	50	20	0.01	1.147	1.243	8.39	
Fluoranthene	1	0		11.07	49.87	50	20	0.6	1.167	1.164	0.26	
Chrysene-d12	1	0	I	12.77	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.33	52.44	50	20	0.6	1.114	1.168	4.88	
Benzidine	1	0		11.22	44.71	50	**		0.322	0.422	10.58	
Terphenyl-d14	1	0	S	11.52	26.25	25	**		0.619	0.649	4.99	
4,4'-DDE	1	0		11.45	51.60		**		0.214			
4,4'-DDD	1	0		11.85	53.18		**		0.412			
Butylbenzylphthalate	1	0		12.10	53.72	50	20	0.01	0.502	0.553	7.44	
4,4'-DDT	1	0		12.20	58.69		**		0.325			
3,3'-Dichlorobenzidine	1	0		12.73	58.66	50	20	0.01	0.258	0.363	17.32	
Benzo[a]anthracene	1	0		12.75	50.81	50	20	0.8	1.049	1.066	1.62	
Chrysene	1	0		12.80	50.96	50	20	0.7	0.975	0.993	1.92	
bis(2-Ethylhexyl)phthalate	1	0		12.80	56.66	50	20	0.01	0.648	0.734	13.32	
Perylene-d12	1	0	I	14.39	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.55	55.60	50	20	0.01	1.172	1.376	11.20	
Benzo[b]fluoranthene	1	0		13.97	51.76	50	20	0.7	1.051	1.088	3.52	
Benzo[k]fluoranthene	1	0		14.00	52.18	50	20	0.7	1.060	1.106	4.36	
Benzo[a]pyrene	1	0		14.33	52.61	50	20	0.7	1.023	1.077	5.22	
Indeno[1,2,3-cd]pyrene	1	0		15.70	52.70	50	20	0.5	1.064	1.122	5.40	
Dibenzo[a,h]anthracene	1	0		15.73	54.16	50	20	0.4	0.880	0.954	8.33	
Benzo[g,h,i]perylene	1	0		16.08	51.38	50	20	0.5	0.908	0.933	2.77	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 7M87651.D **Instrument:** GCMS 7

Cont Calibration Date/Time 11/15/2017 9:29:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial 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	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.677	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	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
gamma-BHC	1	100		0.00	0.00	10	**			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	**		0.826	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 I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM
Data File: 7M87651.D
Acq On : 11/15/17 09:29

Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA

Qt Meth : 7M_1019.M
Qt On : 11/15/17 09:49
Qt Upd On: 10/19/17 15:22

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.562	96	59711	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	104269	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	405274	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	240221	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	436161	40.00	ng	-0.01
91) Chrysene-d12	12.765	240	453883	40.00	ng	0.00
103) Perylene-d12	14.395	264	424969	40.00	ng	-0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	170850	47.27	ng	0.00
Spiked Amount 100.000			Recovery = 47.27%			
16) Phenol-d5	5.494	99	216878	46.89	ng	0.00
Spiked Amount 100.000			Recovery = 46.89%			
32) Nitrobenzene-d5	6.264	128	41753	25.57	ng	0.00
Spiked Amount 50.000			Recovery = 51.14%			
55) 2-Fluorobiphenyl	7.663	172	186657	24.99	ng	-0.01
Spiked Amount 50.000			Recovery = 49.98%			
80) 2,4,6-Tribromophenol	8.988	330	46913	51.62	ng	-0.01
Spiked Amount 100.000			Recovery = 51.62%			
94) Terphenyl-d14	11.515	244	184218	26.25	ng	0.00
Spiked Amount 50.000			Recovery = 52.50%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.599	88	79438	51.2738	ng	98
9) Pyridine	3.074	79	196138	46.4546	ng	69
10) N-Nitrosodimethylamine	2.994	74	118068	47.0271	ng	71
12) Benzaldehyde	5.441	77	47751	22.4772	ng	77
13) Aniline	5.532	93	254700	47.2914	ng	13
14) Pentachloroethane	5.575	117	57484	47.6835	ng	87
15) bis(2-Chloroethyl)ether	5.591	93	177603	43.9620	ng	78
17) Phenol	5.505	94	252439	46.7379	ng	82
18) 2-Chlorophenol	5.633	128	181530	47.5343	ng	79
19) N-Decane	5.676	57	171842	48.7717	ng	93
20) 1,3-Dichlorobenzene	5.767	146	180915	46.5634	ng	98
22) 1,4-Dichlorobenzene	5.831	146	183188	49.2208	ng	97
23) 1,2-Dichlorobenzene	5.954	146	173103	48.3579	ng	97
24) Benzyl alcohol	5.927	108	118273	49.3462	ng	71
25) bis(2-chloroisopropyl)...	6.039	45	216879	48.7730	ng	96
26) 2-Methylphenol	6.018	108	164814	49.0768	ng	98
27) Acetophenone	6.141	105	254896	49.2909	ng	75
28) Hexachloroethane	6.232	117	72139	49.6719	ng	84
29) N-Nitroso-di-n-propyla...	6.141	70	118583	49.2668	ng	81
30) 3&4-Methylphenol	6.141	108	168852	50.8217	ng	100
33) Nitrobenzene	6.280	77	182944	50.5431	ng	81
34) Isophorone	6.467	82	341945	50.6336	ng	85
35) 2-Nitrophenol	6.531	139	95273	52.9440	ng	83
36) 2,4-Dimethylphenol	6.552	107	174641	51.0767	ng	92
37) Benzoic Acid	6.622	105	100875	29.6424	ng	47
38) bis(2-Chloroethoxy)met...	6.627	93	211629	49.6179	ng	96
39) 2,4-Dichlorophenol	6.713	162	136791	52.2434	ng	89
40) 1,2,4-Trichlorobenzene	6.777	180	147288	49.6486	ng	99
41) Naphthalene	6.841	128	510077	51.7138	ng	99
42) 4-Chloroaniline	6.878	127	194492m	53.7167	ng	
43) Hexachlorobutadiene	6.926	225	76202	50.2279	ng	96
44) Caprolactam	7.151	113	66310	49.8300	ng	68
45) 4-Chloro-3-methylphenol	7.236	107	155305	51.3900	ng	84
46) 2-Methylnaphthalene	7.375	142	343956	49.0668	ng	99
47) 1-Methylnaphthalene	7.455	142	327481	48.7958	ng	91
48) Methylnaphthalenes (To...	7.375	142	672557m	98.0554	ng	
49) 1,1'-Biphenyl	7.749	154	400787	48.6590	ng	96
51) 1,2,4,5-Tetrachloroben...	7.508	216	152124	50.2721	ng	97
52) Hexachlorocyclopentadiene	7.498	237	86949	51.2340	ng	99
53) 2,4,6-Trichlorophenol	7.594	196	104304	52.7916	ng	99
54) 2,4,5-Trichlorophenol	7.626	196	106435	54.8421	ng	99
56) 2-Chloronaphthalene	7.770	162	315405	49.2806	ng	93
57) 1,4-Dimethylnaphthalene	8.053	156	252594	50.8981	ng	83
58) Dimethylnaphthalenes (...	8.053	156	252594	50.8981	ng	83
59) Diphenyl Ether	7.834	170	236356	49.6071	ng	77
60) 2-Nitroaniline	7.850	65	117379	52.4859	ng	51
61) Coumarin	8.032	146	132641	49.9345	ng	76
62) Acenaphthylene	8.128	152	502113	50.4630	ng	99
63) Dimethylphthalate	7.989	163	364321	49.3700	ng	98
64) 2,6-Dinitrotoluene	8.048	165	84925	52.9448	ng	68
65) Acenaphthene	8.283	153	318907	48.9560	ng	98

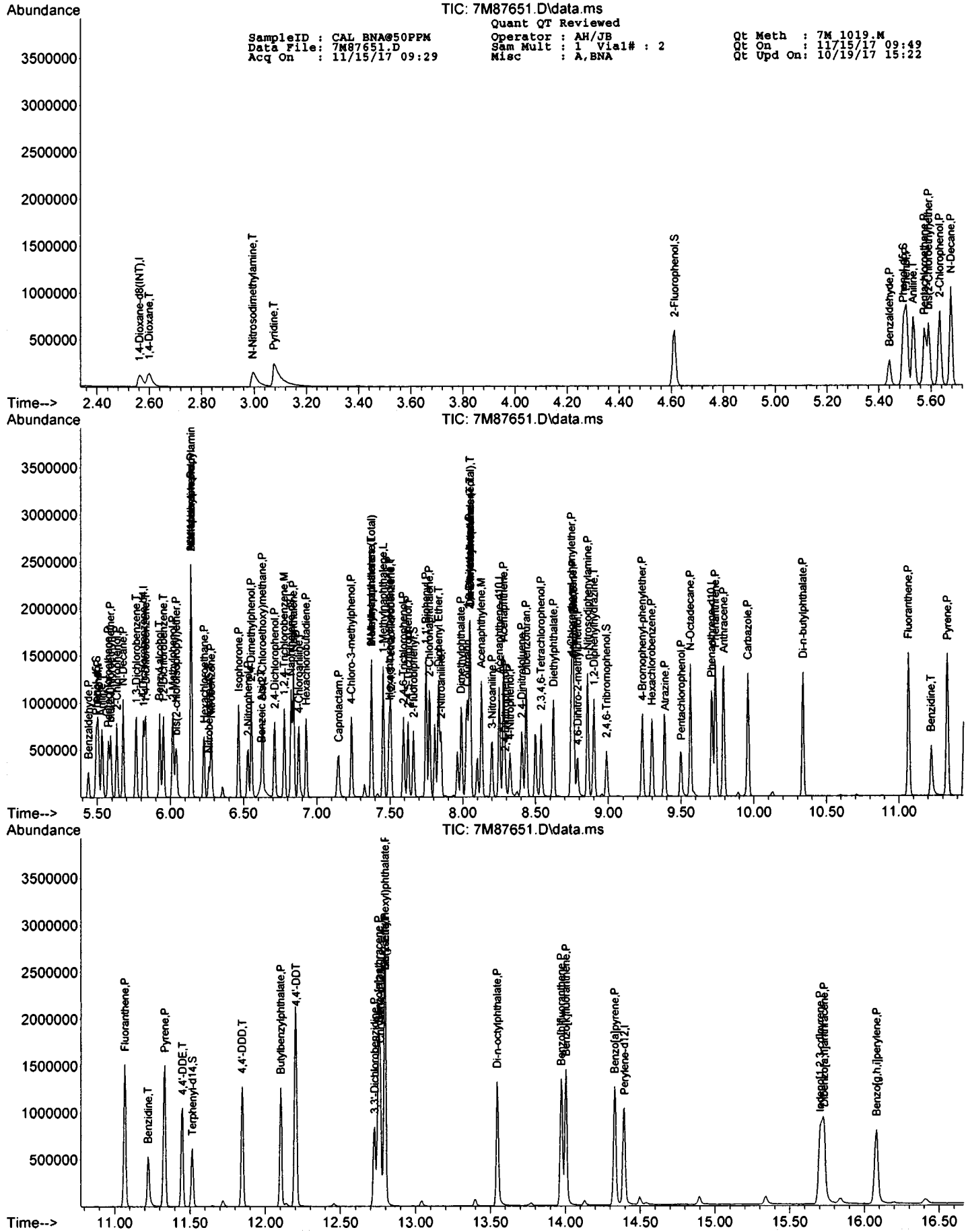
Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87651.D Sam Mult : 1 Vial# : 2 Qt On : 11/15/17 09:49
Acq On : 11/15/17 09:29 Misc : A,BNA Qt Upd On: 10/19/17 15:22

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.203	138	102141	55.1770	ng	75
67)	2,4-Dinitrophenol	8.294	184	39937	49.7331	ng	34
68)	Dibenzofuran	8.438	168	467126	51.7199	ng	82
69)	2,4-Dinitrotoluene	8.406	165	119418	51.1328	ng	65
70)	4-Nitrophenol	8.326	65	73930	49.5033	ng	92
71)	2,3,4,6-Tetrachlorophenol	8.540	232	87086	48.7189	ng	85
72)	Fluorene	8.759	166	375106	50.0191	ng	96
73)	4-Chlorophenyl-phenyle...	8.748	204	173824	49.8930	ng	83
74)	Diethylphthalate	8.625	149	377578	49.3012	ng	96
75)	4-Nitroaniline	8.764	138	111173	51.1460	ng	73
76)	Atrazine	9.389	200	95702	50.6131	ng	93
78)	4,6-Dinitro-2-methylph...	8.791	198	63520	53.6609	ng	68
79)	n-Nitrosodiphenylamine	8.860	169	335966	51.2000	ng	96
81)	1,2-Diphenylhydrazine	8.903	77	389495	49.4150	ng	83
82)	4-Bromophenyl-phenylether	9.234	248	103128	50.1580	ng	84
83)	Hexachlorobenzene	9.298	284	106880	49.3086	ng	70
84)	N-Octadecane	9.565	57	232262	53.4722	ng	77
85)	Pentachlorophenol	9.501	266	58835	45.9135	ng	98
86)	Phenanthrene	9.736	178	559903	48.7968	ng	99
87)	Anthracene	9.795	178	580317	50.4578	ng	99
88)	Carbazole	9.961	167	550882	50.0413	ng	97
89)	Di-n-butylphthalate	10.340	149	677897	54.1945	ng	97
90)	Fluoranthene	11.066	202	634666	49.8713	ng	97
92)	Pyrene	11.334	202	662654	52.4393	ng	92
93)	Benzidine	11.221	184	239703	44.7084	ng	92
95)	4,4'-DDE	11.451	246	125250	51.5961	ng	94
96)	4,4'-DDD	11.846	235	248385	53.1785	ng	96
97)	Butylbenzylphthalate	12.103	149	313683	53.7206	ng	74
98)	4,4'-DDT	12.204	235	216648	58.6873	ng	99
99)	3,3'-Dichlorobenzidine	12.728	252	205690	58.6615	ng	97
100)	Benzo[a]anthracene	12.755	228	604734	50.8102	ng	100
101)	Chrysene	12.797	228	563645	50.9588	ng	98
102)	bis(2-Ethylhexyl)phtha...	12.797	149	416677	56.6611	ng	94
104)	Di-n-octylphthalate	13.545	149	731168	55.6023	ng	100
105)	Benzo[b]fluoranthene	13.973	252	577831	51.7601	ng	97
106)	Benzo[k]fluoranthene	14.005	252	587514m	52.1791	ng	
107)	Benzo[a]pyrene	14.331	252	571946	52.6109	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.703	276	595858	52.6999	ng	90
109)	Dibenzo[a,h]anthracene	15.730	278	506552	54.1643	ng	91
110)	Benzo[g,h,i]perylene	16.083	276	495452	51.3831	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87651.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 7M87651.D
Acq On : 11/15/17 09:29
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 11/15/17 09:49
Qt Upd On: 10/19/17 15:22
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
Aniline,P
Bis(2-Chloroethyl)ether,P
2-Chlorophenol,P
N-Decane,P
Time-->
Abundance
TIC: 7M87651.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dichlorophenol,P
1,2,4-Trichlorobenzene,M
Hexachlorobutadiene,P
3-Nitroaniline,P
2,4-Dinitrophenol,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
4,6-Dinitro-2-methylphenol,P
1,2-Diphenylhydrazine,T
2,4,6-Tribromophenol,S
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->
Abundance
TIC: 7M87651.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
4,4'-DDE,T
Terphenyl-d14,S
4,4'-DDD,T
Butylbenzylphthalate,P
4,4'-DDT
Di-n-octylphthalate,P
Benzo[b]fluoranthene,P
Benzo[k]fluoranthene,P
Benzo[a]pyrene,P
Perylene-d12,I
Indeno[1,2,3-cd]pyrene,P
Dibenz[a,h]anthracene,P
Benzo[g,h,i]perylene,P
Time-->

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66039.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/15/2017 11:11:00 Method: EPA 8270D

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	2.58	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.61	49.59	50	**		1.208	0.998	0.82	
Pyridine	1	0		3.09	49.58	50	**		2.562	2.541	0.83	
N-Nitrosodimethylamine	1	0		3.02	49.78	50	**		1.443	1.437	0.44	
2-Fluorophenol	1	0	S	4.62	48.64	50	**		2.611	2.540	2.73	
Benzaldehyde	1	0		5.45	32.84	50	20	0.01	1.204	0.791	34.32	C1
Aniline	1	0		5.54	45.87	50	**		3.501	3.711	8.26	
Pentachloroethane	1	0		5.58	50.61	50	**	0.05	0.942	0.953	1.22	
bis(2-Chloroethyl)ether	1	0		5.60	46.60	50	20	0.7	2.748	2.561	6.81	
Phenol-d5	1	0	S	5.50	49.27	50	**		3.212	3.165	1.46	
Phenol	1	0		5.52	50.69	50	20	0.8	3.681	3.732	1.39	
2-Chlorophenol	1	0		5.64	50.42	50	20	0.8	3.079	3.105	0.84	
N-Decane	1	0		5.68	37.73	50	**	0.05	3.092	2.333	24.53	
1,3-Dichlorobenzene	1	0		5.77	47.93	50	**		3.371	3.232	4.13	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	47.82	50	20		1.505	1.440	4.36	
1,2-Dichlorobenzene	1	0		5.96	48.33	50	**		1.424	1.376	3.34	
Benzyl alcohol	1	0		5.94	48.96	50	**		0.834	0.817	2.08	
bis(2-chloroisopropyl)ether	1	0		6.04	35.97	50	20	0.01	1.983	1.426	28.06	C1
2-Methylphenol	1	0		6.03	48.31	50	20	0.7	1.172	1.132	3.38	
Acetophenone	1	0		6.15	53.17	50	20	0.01	1.761	1.873	6.34	
Hexachloroethane	1	0		6.24	51.01	50	20	0.3	0.537	0.548	2.01	
N-Nitroso-di-n-propylamine	1	0		6.15	52.98	50	20	0.5	0.808	0.857	5.96	
3&4-Methylphenol	1	0		6.15	52.28	50	20		1.197	1.252	4.56	
Naphthalene-d8	1	0	I	6.83	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.27	24.03	25	**		0.156	0.150	3.87	
Nitrobenzene	1	0		6.29	50.37	50	20	0.2	0.306	0.308	0.75	
Isophorone	1	0		6.47	51.15	50	20	0.4	0.569	0.582	2.30	
2-Nitrophenol	1	0		6.54	50.53	50	20	0.1	0.182	0.184	1.06	
2,4-Dimethylphenol	1	0		6.56	50.78	50	20	0.2	0.320	0.325	1.57	
Benzoic Acid	1	0		6.64	20.61	50	**		0.272	0.119	58.78	
bis(2-Chloroethoxy)methane	1	0		6.63	48.29	50	20	0.3	0.368	0.355	3.43	
2,4-Dichlorophenol	1	0		6.72	48.43	50	20	0.2	0.291	0.282	3.14	
1,2,4-Trichlorobenzene	1	0		6.78	47.04	50	**		0.320	0.301	5.92	
Naphthalene	1	0		6.85	50.80	50	20	0.7	1.075	1.039	1.59	
4-Chloroaniline	1	0		6.88	53.18	50	20	0.01	0.317	0.397	6.35	
Hexachlorobutadiene	1	0		6.93	48.95	50	20	0.01	0.176	0.172	2.11	
Caprolactam	1	0		7.16	52.87	50	20	0.01	0.117	0.119	5.73	
4-Chloro-3-methylphenol	1	0		7.25	53.19	50	20	0.2	0.267	0.284	6.37	
2-Methylnaphthalene	1	0		7.38	49.95	50	**	0.4	0.709	0.708	0.11	
1-Methylnaphthalene	1	0		7.46	49.67	50	**	0.4	0.681	0.676	0.65	
Methylnaphthalenes	1	0		7.38	99.08	100	**			0.687	0.92	
1,1'-Biphenyl	1	0		7.75	49.55	50	20	0.01	0.824	0.817	0.91	
Acenaphthene-d10	1	0	I	8.26	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.51	49.93	50	20	0.01	0.568	0.567	0.14	
Hexachlorocyclopentadiene	1	0		7.50	40.77	50	20	0.05	0.329	0.268	18.46	
2,4,6-Trichlorophenol	1	0		7.60	51.19	50	20	0.2	0.347	0.356	2.38	
2,4,5-Trichlorophenol	1	0		7.63	49.32	50	20	0.2	0.373	0.368	1.36	
2-Fluorobiphenyl	1	0	S	7.67	25.46	25	**		1.252	1.275	1.82	
2-Chloronaphthalene	1	0		7.78	49.33	50	20	0.8	1.055	1.041	1.34	
1,4-Dimethylnaphthalene	1	0		8.06	51.51	50	**		0.858	0.884	3.03	
Dimethylnaphthalenes	1	0		8.06	51.51	50	20			0.884	3.03	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66039.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/15/2017 11:11:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.83	50.17	50	**		0.823	0.826	0.33	
2-Nitroaniline	1	0		7.86	52.81	50	20	0.01	0.349	0.369	5.63	
Coumarin	1	0		8.04	50.02		**		0.435			
Acenaphthylene	1	0		8.13	49.15	50	20	0.9	1.711	1.682	1.70	
Dimethylphthalate	1	0		8.00	50.87	50	20	0.01	1.209	1.230	1.73	
2,6-Dinitrotoluene	1	0		8.06	51.80	50	20	0.2	0.276	0.301	3.59	
Acenaphthene	1	0		8.29	50.56	50	20	0.9	1.117	1.129	1.12	
3-Nitroaniline	1	0		8.21	51.35	50	20	0.01	0.278	0.327	2.70	
2,4-Dinitrophenol	1	0		8.30	40.43	50	20	0.01	0.123	0.106	19.14	
Dibenzofuran	1	0		8.44	48.49	50	20	0.8	1.621	1.572	3.02	
2,4-Dinitrotoluene	1	0		8.42	53.25	50	20	0.2	0.360	0.392	6.51	
4-Nitrophenol	1	0		8.34	49.09	50	20	0.01	0.215	0.226	1.82	
2,3,4,6-Tetrachlorophenol	1	0		8.55	52.68	50	20	0.01	0.323	0.340	5.35	
Fluorene	1	0		8.77	51.55	50	20	0.9	1.283	1.323	3.11	
4-Chlorophenyl-phenylether	1	0		8.75	51.70	50	20	0.4	0.599	0.620	3.40	
Diethylphthalate	1	0		8.63	52.28	50	20	0.01	1.242	1.299	4.56	
4-Nitroaniline	1	0		8.77	51.48	50	20	0.01	0.358	0.370	2.96	
Atrazine	1	0		9.39	52.78	50	20	0.01	0.327	0.345	5.55	
Phenanthrene-d10	1	0	I	9.72	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.80	47.20	50	20	0.01	0.108	0.108	5.60	
n-Nitrosodiphenylamine	1	0		8.86	50.91	50	20	0.01	0.630	0.642	1.81	
2,4,6-Tribromophenol	1	0	S	9.00	55.82	50	**		0.109	0.124	11.65	
1,2-Diphenylhydrazine	1	0		8.90	52.31	50	**		0.650	0.680	4.61	
4-Bromophenyl-phenylether	1	0		9.24	53.14	50	20	0.1	0.208	0.221	6.28	
Hexachlorobenzene	1	0		9.31	55.10	50	20	0.1	0.220	0.243	10.19	
N-Octadecane	1	0		9.57	40.48	50	**	0.05	0.441	0.357	19.05	
Pentachlorophenol	1	0		9.51	42.09	50	20	0.05	0.132	0.111	15.83	
Phenanthrene	1	0		9.74	48.80	50	20	0.7	1.118	1.092	2.39	
Anthracene	1	0		9.80	49.84	50	20	0.7	1.134	1.131	0.32	
Carbazole	1	0		9.97	50.36	50	20	0.01	1.042	1.049	0.72	
Di-n-butylphthalate	1	0		10.34	53.02	50	20	0.01	1.197	1.273	6.04	
Fluoranthene	1	0		11.07	51.90	50	20	0.6	1.176	1.221	3.79	
Chrysene-d12	1	0	I	12.76	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.33	46.49	50	20	0.6	1.118	1.039	7.02	
Benzidine	1	0		11.23	32.83	50	**		0.438	0.397	34.34	
Terphenyl-d14	1	0	S	11.51	24.76	25	**		0.612	0.606	0.94	
4,4'-DDE	1	0		11.45	49.34		**		0.223			
4,4'-DDD	1	0		11.85	49.90		**		0.424			
Butylbenzylphthalate	1	0		12.10	48.36	50	20	0.01	0.489	0.481	3.28	
4,4'-DDT	1	0		12.20	52.37		**		0.359			
3,3'-Dichlorobenzidine	1	0		12.72	56.48	50	20	0.01	0.271	0.353	12.96	
Benzo[a]anthracene	1	0		12.75	48.89	50	20	0.8	1.027	1.004	2.22	
Chrysene	1	0		12.79	49.51	50	20	0.7	0.975	0.965	0.97	
bis(2-Ethylhexyl)phthalate	1	0		12.78	51.58	50	20	0.01	0.683	0.704	3.15	
Perylene-d12	1	0	I	14.38	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.53	48.02	50	20	0.01	1.245	1.232	3.96	
Benzo[b]fluoranthene	1	0		13.96	49.11	50	20	0.7	1.092	1.073	1.78	
Benzo[k]fluoranthene	1	0		13.99	51.35	50	20	0.7	1.088	1.117	2.70	
Benzo[a]pyrene	1	0		14.32	49.51	50	20	0.7	1.043	1.033	0.98	
Indeno[1,2,3-cd]pyrene	1	0		15.69	51.04	50	20	0.5	1.142	1.165	2.08	
Dibenzo[a,h]anthracene	1	0		15.71	50.17	50	20	0.4	0.966	0.969	0.33	
Benzo[g,h,i]perylene	1	0		16.07	51.09	50	20	0.5	0.975	0.996	2.18	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL BNA@50PPM **Data File:** 10M66039.D **Instrument:** GCMS 10

Cont Calibration Date/Time 11/15/2017 11:11:00 Method: EPA 8270D

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Heptachlor	1	100		0.00	0.00	10	**			0.000	100.00	
Methoxychlor	1	100		0.00	0.00	10	**			0.000	100.00	
gamma-BHC	1	100		0.00	0.00	10	**			0.000	100.00	
2,2'-oxybis-(1-Chloropropane)	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	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
Heptachlor epoxide	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	
Toluene Diisocyanate	1	100		0.00	0.00	50	**			0.000	100.00	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.858	0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			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	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			0.000	100.00	

S-Surrogate Compound I-Internal Standard Compound

N/O or N/Q - Not applicable for this run C1-Compound %Diff exceeds limits ** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F. 625 limits are compared against the %DIFF.

624 limits are compared against the concentration found. 524.2 limits are compared against the %DIFF

Quantitation Report (QT Reviewed)

SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66039.D Sam Mult : 1 Vial# : 2 Qt On : 11/15/17 11:28
Acq On : 11/15/17 11:11 Misc : A,BNA Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.583	96	45100	40.00	ng	-0.02
21) 1,4-Dichlorobenzene-d4	5.824	152	102757	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	410276	40.00	ng	-0.01
50) Acenaphthene-d10	8.257	164	245443	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	428658	40.00	ng	0.00
91) Chrysene-d12	12.761	240	523383	40.00	ng	0.00
103) Perylene-d12	14.376	264	497060	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.620	112	143187	48.64	ng	-0.01
Spiked Amount 100.000			Recovery = 48.64%			
16) Phenol-d5	5.503	99	178443	49.27	ng	0.00
Spiked Amount 100.000			Recovery = 49.27%			
32) Nitrobenzene-d5	6.273	128	38372	24.03	ng	0.00
Spiked Amount 50.000			Recovery = 48.06%			
55) 2-Fluorobiphenyl	7.669	172	195516	25.46	ng	0.00
Spiked Amount 50.000			Recovery = 50.92%			
80) 2,4,6-Tribromophenol	8.996	330	66257	55.82	ng	0.00
Spiked Amount 100.000			Recovery = 55.82%			
94) Terphenyl-d14	11.515	244	198158	24.76	ng	0.00
Spiked Amount 50.000			Recovery = 49.52%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.615	88	56284	49.5920	ng	61
9) Pyridine	3.091	79	143238	49.5839	ng	74
10) N-Nitrosodimethylamine	3.016	74	81010	49.7804	ng	84
12) Benzaldehyde	5.449	77	44584	32.8376	ng	71
13) Aniline	5.540	93	209183	45.8709	ng	72
14) Pentachloroethane	5.583	117	53735	50.6081	ng	76
15) bis(2-Chloroethyl)ether	5.599	93	144359	46.5950	ng	77
17) Phenol	5.519	94	210409	50.6927	ng	83
18) 2-Chlorophenol	5.642	128	175036	50.4217	ng	73
19) N-Decane	5.679	57	131536	37.7331	ng	81
20) 1,3-Dichlorobenzene	5.770	146	182208	47.9328	ng	97
22) 1,4-Dichlorobenzene	5.834	146	184935	47.8213	ng	99
23) 1,2-Dichlorobenzene	5.957	146	176754	48.3298	ng	98
24) Benzyl alcohol	5.936	108	104938	48.9609	ng	70
25) bis(2-chloroisopropyl)...	6.043	45	183220	35.9709	ng	80
26) 2-Methylphenol	6.027	108	145398	48.3123	ng	96
27) Acetophenone	6.150	105	240611	53.1722	ng	74
28) Hexachloroethane	6.236	117	70423	51.0071	ng	88
29) N-Nitroso-di-n-propyla...	6.150	70	110026	52.9794	ng	79
30) 3&4-Methylphenol	6.150	108	160816	52.2803	ng	100
33) Nitrobenzene	6.289	77	158107	50.3740	ng	71
34) Isophorone	6.471	82	298534	51.1491	ng	82
35) 2-Nitrophenol	6.535	139	94565	50.5275	ng	84
36) 2,4-Dimethylphenol	6.562	107	166469	50.7846	ng	91
37) Benzoic Acid	6.637	105	61126	20.6088	ng	81
38) bis(2-Chloroethoxy)met...	6.631	93	182169	48.2857	ng	96
39) 2,4-Dichlorophenol	6.717	162	144530	48.4315	ng	85
40) 1,2,4-Trichlorobenzene	6.781	180	154400	47.0400	ng	99
41) Naphthalene	6.845	128	533094	50.7960	ng	100
42) 4-Chloroaniline	6.883	127	203544	53.1763	ng	96
43) Hexachlorobutadiene	6.931	225	88389	48.9453	ng	98
44) Caprolactam	7.161	113	60907	52.8661	ng	59
45) 4-Chloro-3-methylphenol	7.247	107	145606	53.1871	ng	73
46) 2-Methylnaphthalene	7.380	142	363183	49.9475	ng	100
47) 1-Methylnaphthalene	7.460	142	346912	49.6732	ng	94
48) Methylnaphthalenes (To...	7.380	142	704986m	99.0796	ng	
49) 1,1'-Biphenyl	7.755	154	418930	49.5470	ng	93
51) 1,2,4,5-Tetrachloroben...	7.509	216	174031	49.9291	ng	97
52) Hexachlorocyclopentadiene	7.498	237	82256	40.7689	ng	98
53) 2,4,6-Trichlorophenol	7.600	196	109107	51.1879	ng	97
54) 2,4,5-Trichlorophenol	7.632	196	112981	49.3193	ng	99
56) 2-Chloronaphthalene	7.776	162	319309	49.3289	ng	92
57) 1,4-Dimethylnaphthalene	8.059	156	271297	51.5134	ng	86
58) Dimethylnaphthalenes (...	8.059	156	271297	51.5134	ng	86
59) Diphenyl Ether	7.835	170	253353	50.1659	ng	79
60) 2-Nitroaniline	7.856	65	113125	52.8144	ng	48
61) Coumarin	8.043	146	133607	50.0151	ng	75
62) Acenaphthylene	8.134	152	515906	49.1516	ng	98
63) Dimethylphthalate	7.995	163	377446	50.8671	ng	98
64) 2,6-Dinitrotoluene	8.059	165	92470	51.7970	ng	59
65) Acenaphthene	8.290	153	346513	50.5587	ng	97

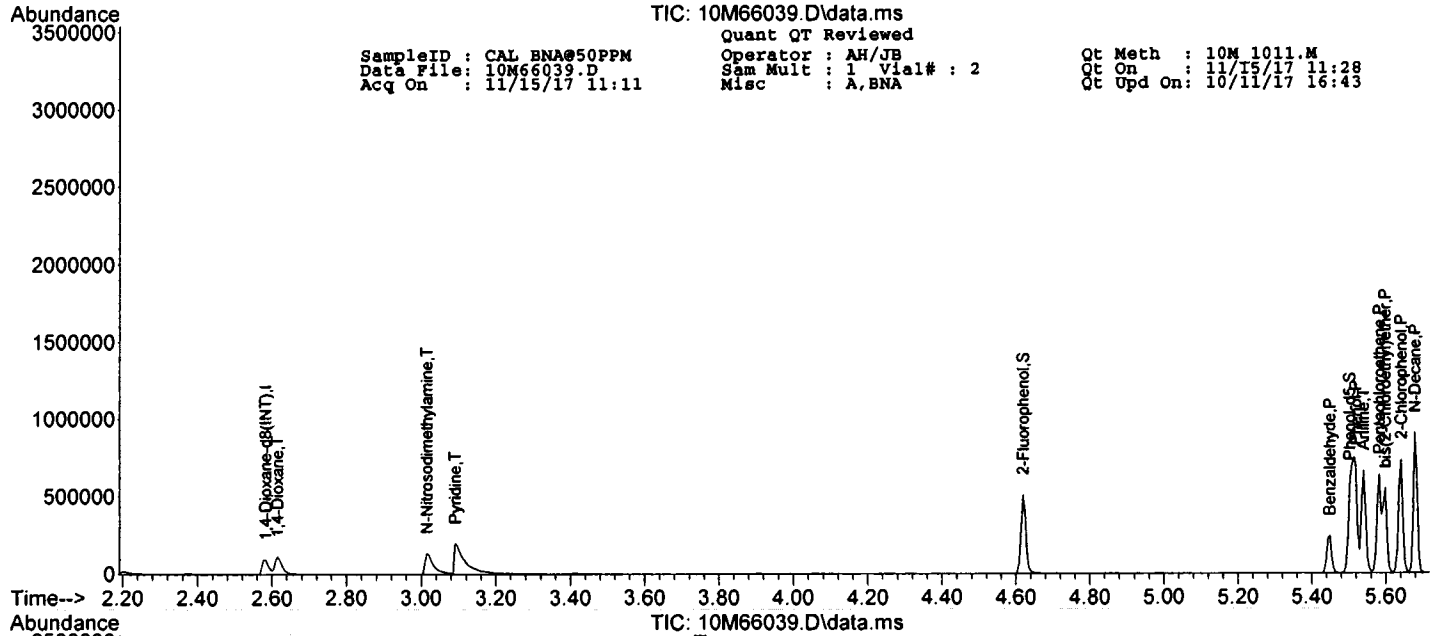
Quantitation Report (QT Reviewed)

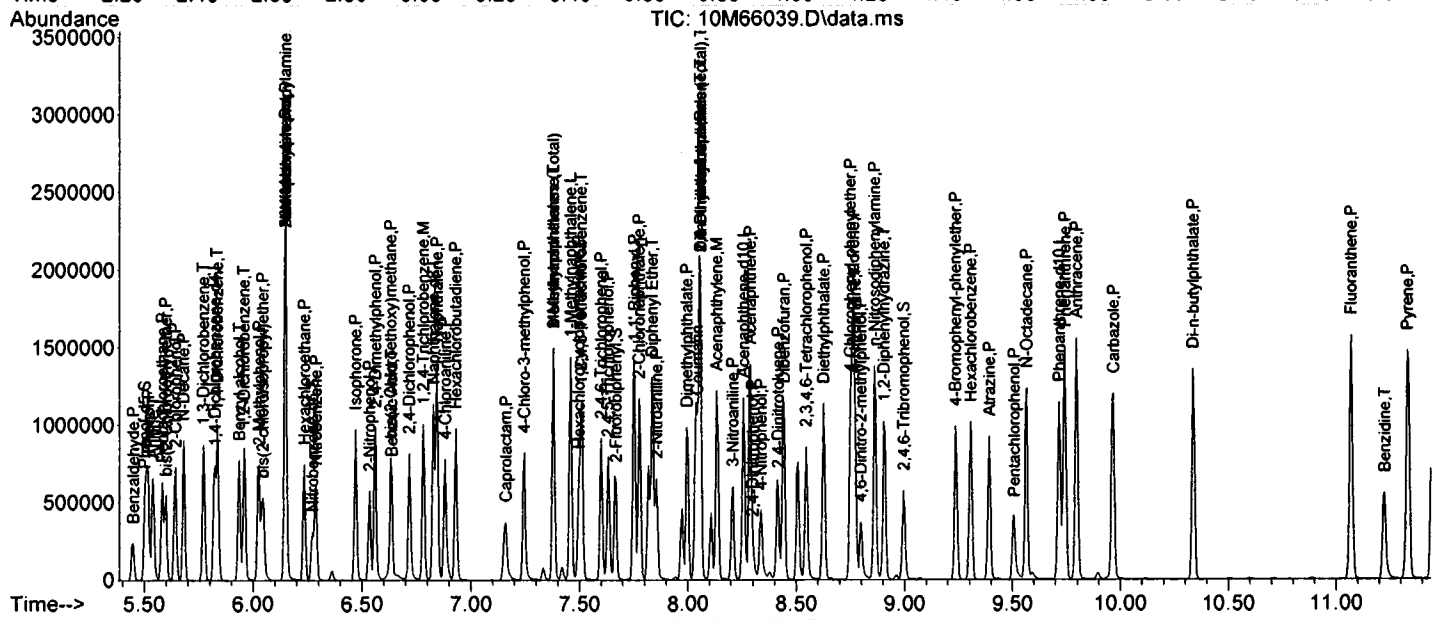
SampleID : CAL BNA@50PPM Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66039.D Sam Mult : 1 Vial# : 2 Qt On : 11/15/17 11:28
Acq On : 11/15/17 11:11 Misc : A,BNA Qt Upd On: 10/11/17 16:43

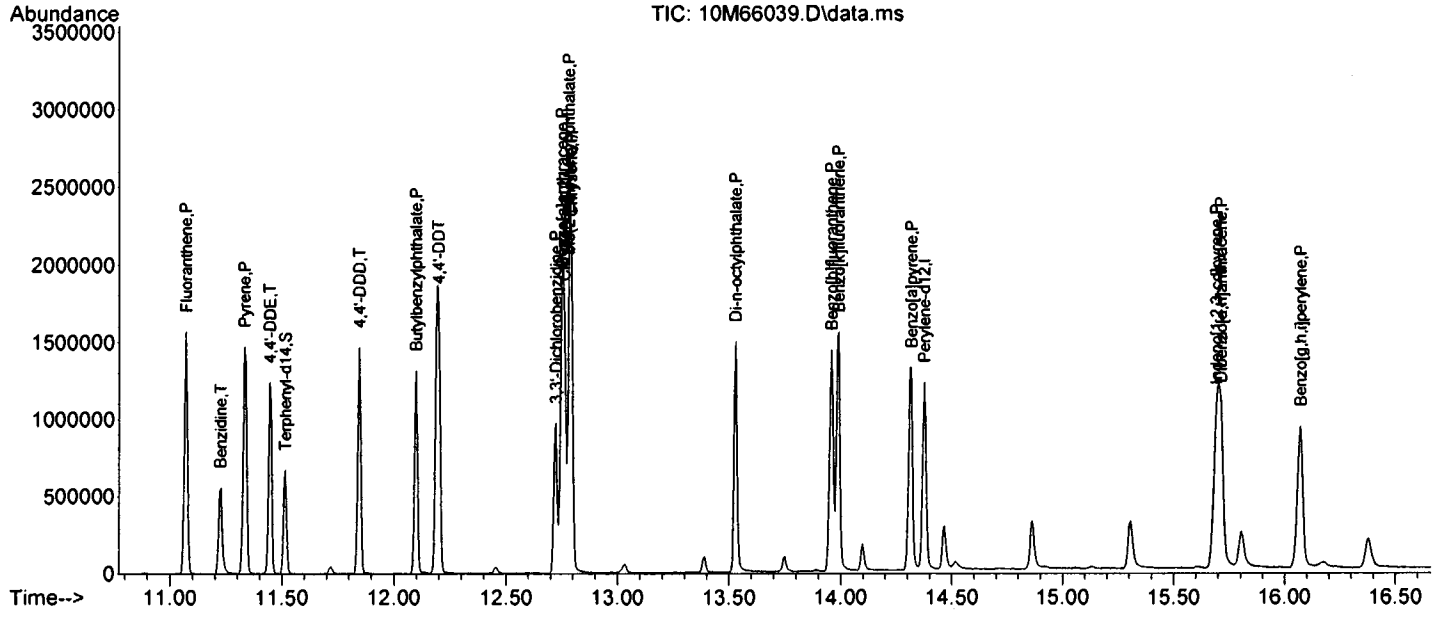
Data Path : G:\GcMsData\2017\GCMS_10\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\GCMS_10\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66)	3-Nitroaniline	8.209	138	100445	51.3497	ng	66
67)	2,4-Dinitrophenol	8.300	184	32386	40.4298	ng	41
68)	Dibenzofuran	8.445	168	482258	48.4918	ng	84
69)	2,4-Dinitrotoluene	8.418	165	120407	53.2546	ng	57
70)	4-Nitrophenol	8.338	65	69324	49.0915	ng	78
71)	2,3,4,6-Tetrachlorophenol	8.546	232	104265	52.6756	ng	81
72)	Fluorene	8.766	166	405816	51.5547	ng	99
73)	4-Chlorophenyl-phenyle...	8.749	204	190069	51.6998	ng	86
74)	Diethylphthalate	8.626	149	398480	52.2781	ng	98
75)	4-Nitroaniline	8.771	138	113545	51.4784	ng	78
76)	Atrazine	9.391	200	105770	52.7754	ng	95
78)	4,6-Dinitro-2-methylph...	8.798	198	57653	47.1993	ng	55
79)	n-Nitrosodiphenylamine	8.862	169	343785	50.9060	ng	100
81)	1,2-Diphenylhydrazine	8.905	77	364563	52.3068	ng	85
82)	4-Bromophenyl-phenylether	9.236	248	118502	53.1410	ng	85
83)	Hexachlorobenzene	9.306	284	130086	55.0973	ng	63
84)	N-Octadecane	9.568	57	191465	40.4762	ng	77
85)	Pentachlorophenol	9.509	266	59492	42.0851	ng	99
86)	Phenanthrene	9.744	178	584861	48.8044	ng	99
87)	Anthracene	9.798	178	605812	49.8403	ng	99
88)	Carbazole	9.969	167	562291	50.3595	ng	97
89)	Di-n-butylphthalate	10.338	149	682206	53.0222	ng	98
90)	Fluoranthene	11.071	202	654254	51.8974	ng	89
92)	Pyrene	11.333	202	679839	46.4888	ng	88
93)	Benzidine	11.226	184	259458	32.8294	ng	85
95)	4,4'-DDE	11.445	246	144267	49.3383	ng	91
96)	4,4'-DDD	11.846	235	276620	49.9014	ng	96
97)	Butylbenzylphthalate	12.098	149	314538	48.3576	ng	70
98)	4,4'-DDT	12.199	235	245787	52.3743	ng	99
99)	3,3'-Dichlorobenzidine	12.724	252	231020	56.4791	ng	96
100)	Benzo[a]anthracene	12.750	228	656708	48.8908	ng	99
101)	Chrysene	12.793	228	631555	49.5135	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.782	149	460877	51.5768	ng	95
104)	Di-n-octylphthalate	13.531	149	765674	48.0185	ng	100
105)	Benzo[b]fluoranthene	13.959	252	666606	49.1078	ng	93
106)	Benzo[k]fluoranthene	13.991	252	694264	51.3500	ng	91
107)	Benzo[a]pyrene	14.317	252	641712	49.5081	ng	91
108)	Indeno[1,2,3-cd]pyrene	15.692	276	724085	51.0411	ng	80
109)	Dibenzo[a,h]anthracene	15.713	278	602056	50.1671	ng	88
110)	Benzo[g,h,i]perylene	16.072	276	619036	51.0888	ng	74

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 10M66039.D\data.ms
Quant QT Reviewed
SampleID : CAL BNA@50PPM
Data File: 10M66039.D
Acq On : 11/15/17 11:11
Operator : AH/JB
Sam Mult : 1 Vial# : 2
Misc : A,BNA
Qt Meth : 10M_1011.M
Qt On : 11/15/17 11:28
Qt Upd On: 10/11/17 16:43
Abundance
Time-->


TIC: 10M66039.D\data.ms
Abundance
Time-->


TIC: 10M66039.D\data.ms
Abundance
Time-->

TxtDfile: 10M65436.D ICV FORM Date/Time: 10/11/17 16:35 **7111017 0266**

Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
1.4-Dioxane	1	0		43.7172	50	87		70	130
Pyridine	1	0		47.38	50	95		50	150
N-Nitrosodimethylamine	1	0		52.217	50	104		70	130
Benzaldehyde	1	0		90.5111	50	181	*	50	150
Aniline	1	0		52.7146	50	105		50	150
Pentachloroethane	1	0		49.3917	50	99		70	130
bis(2-Chloroethyl)ether	1	0		50.4559	50	101		70	130
Phenol	1	0		49.8264	50	100		70	130
2-Chlorophenol	1	0		49.2724	50	99		70	130
1.3-Dichlorobenzene	1	0		49.5028	50	99		70	130
1.4-Dichlorobenzene	1	0		50.3597	50	101		70	130
1.2-Dichlorobenzene	1	0		49.3381	50	99		70	130
Benzyl alcohol	1	0		48.6667	50	97		70	130
bis(2-chloroisopropyl)ether	1	0		47.5735	50	95		70	130
2-Methylphenol	1	0		47.3835	50	95		70	130
Acetophenone	1	0		45.6012	50	91		70	130
Hexachloroethane	1	0		51.4943	50	103		70	130
N-Nitroso-di-n-propylamine	1	0		49.1893	50	98		70	130
3&4-Methylphenol	1	0		48.2674	50	97		70	130
Nitrobenzene	1	0		50.1715	50	100		70	130
Isophorone	1	0		49.3005	50	99		70	130
2-Nitrophenol	1	0		50.3195	50	101		70	130
2.4-Dimethylphenol	1	0		47.2167	50	94		70	130
Benzoic Acid	1	0		25.6383	50	51	*	70	130
bis(2-Chloroethoxy)methane	1	0		48.5752	50	97		70	130
2.4-Dichlorophenol	1	0		49.6267	50	99		70	130
1.2.4-Trichlorobenzene	1	0		48.973	50	98		70	130
Naphthalene	1	0		51.2557	50	103		70	130
4-Chloroaniline	1	0		56.0598	50	112		50	150
Hexachlorobutadiene	1	0		46.6375	50	93		70	130
Caprolactam	1	0		45.3395	50	91		70	130
4-Chloro-3-methylphenol	1	0		48.7635	50	98		70	130
2-Methylnaphthalene	1	0		47.828	50	96		70	130
1-Methylnaphthalene	1	0		49.996	50	100		70	130
1.1'-Biphenyl	1	0		46.6503	50	93		70	130
1.2.4.5-Tetrachlorobenzene	1	0		46.7669	50	94		70	130
Hexachlorocyclopentadiene	1	0		50.0254	50	100		70	130
2.4.6-Trichlorophenol	1	0		50.3901	50	101		70	130
2.4.5-Trichlorophenol	1	0		51.1827	50	102		70	130
2-Chloronaphthalene	1	0		52.7628	50	106		70	130
1.4-Dimethylnaphthalene	1	0		50.8776	50	102		70	130
Diphenyl Ether	1	0		46.4744	50	93		70	130
2-Nitroaniline	1	0		49.3285	50	99		70	130
Acenaphthylene	1	0		53.2226	50	106		70	130
Dimethylphthalate	1	0		49.205	50	98		70	130
2.6-Dinitrotoluene	1	0		48.6876	50	97		70	130
Acenaphthene	1	0		50.3449	50	101		70	130
3-Nitroaniline	1	0		50.8136	50	102		70	130
2.4-Dinitrophenol	1	0		41.7854	50	84		70	130
Dibenzofuran	1	0		47.6837	50	95		70	130
2.4-Dinitrotoluene	1	0		49.363	50	99		70	130
4-Nitrophenol	1	0		49.0783	50	98		70	130
2.3.4.6-Tetrachlorophenol	1	0		47.5748	50	95		70	130
Fluorene	1	0		50.4402	50	101		70	130
4-Chlorophenyl-phenylether	1	0		49.2752	50	99		70	130
Diethylphthalate	1	0		51.0159	50	102		70	130
4-Nitroaniline	1	0		49.857	50	100		70	130
Atrazine	1	0		53.1077	50	106		70	130
4.6-Dinitro-2-methylphenol	1	0		47.0947	50	94		70	130
n-Nitrosodiphenylamine	1	0		41.7962	50	84		70	130
1.2-Diphenylhydrazine	1	0		53.4565	50	107		70	130
4-Bromophenyl-phenylether	1	0		49.1592	50	98		70	130
Hexachlorobenzene	1	0		50.4791	50	101		70	130
Pentachlorophenol	1	0		52.7244	50	105		70	130
Phenanthrene	1	0		49.0523	50	98		70	130
Anthracene	1	0		48.6537	50	97		70	130
Carbazole	1	0		49.5291	50	99		70	130
Di-n-butylphthalate	1	0		51.3394	50	103		70	130
Fluoranthene	1	0		49.9233	50	100		70	130
Pyrene	1	0		50.4718	50	101		70	130
Benzidine	1	0		42.9597	50	86		50	150
Butylbenzylphthalate	1	0		48.3441	50	97		70	130
3.3'-Dichlorobenzidine	1	0		59.338	50	119		50	150
Benzo[a]anthracene	1	0		49.9	50	100		70	130
Chrysene	1	0		50.706	50	101		70	130
bis(2-Ethylhexyl)phthalate	1	0		52.4518	50	105		70	130
Di-n-octylphthalate	1	0		51.3731	50	103		70	130
Benzo[b]fluoranthene	1	0		50.4876	50	101		70	130
Benzo[k]fluoranthene	1	0		50.4418	50	101		70	130
Benzo[a]pyrene	1	0		51.6674	50	103		70	130
Indeno[1.2.3-cd]pyrene	1	0		51.6293	50	103		70	130
Dibenzo[a.h]anthracene	1	0		50.2399	50	100		70	130
Benzo[g.h.i]perylene	1	0		47.8893	50	96		70	130

TxtDfile: 5M101330.D ICV FORM Date/Time: 10/20/17 13:06 7111017 0267

Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
1.4-Dioxane	1	0		43.0051	50	86		70	130
Pyridine	1	0		46.529	50	93		50	150
N-Nitrosodimethylamine	1	0		55.2446	50	110		70	130
Benzaldehyde	1	0		93.4996	50	187	*	50	150
Aniline	1	0		57.5367	50	115		50	150
Pentachloroethane	1	0		48.0903	50	96		70	130
bis(2-Chloroethyl)ether	1	0		48.072	50	96		70	130
Phenol	1	0		49.453	50	99		70	130
2-Chlorophenol	1	0		49.1908	50	98		70	130
1.3-Dichlorobenzene	1	0		50.265	50	101		70	130
1.4-Dichlorobenzene	1	0		49.8073	50	100		70	130
1.2-Dichlorobenzene	1	0		50.3806	50	101		70	130
Benzyl alcohol	1	0		51.4947	50	103		70	130
bis(2-chloroisopropyl)ether	1	0		49.6842	50	99		70	130
2-Methylphenol	1	0		49.1766	50	98		70	130
Acetophenone	1	0		47.8798	50	96		70	130
Hexachloroethane	1	0		50.3214	50	101		70	130
N-Nitroso-di-n-propylamine	1	0		51.4425	50	103		70	130
3&4-Methylphenol	1	0		50.3343	50	101		70	130
Nitrobenzene	1	0		52.5611	50	105		70	130
Isophorone	1	0		53.0035	50	106		70	130
2-Nitrophenol	1	0		53.6969	50	107		70	130
2.4-Dimethylphenol	1	0		48.3147	50	97		70	130
Benzoic Acid	1	0		22.6781	50	45	*	70	130
bis(2-Chloroethoxy)methane	1	0		50.6532	50	101		70	130
2.4-Dichlorophenol	1	0		51.7025	50	103		70	130
1.2.4-Trichlorobenzene	1	0		51.1631	50	102		70	130
Naphthalene	1	0		51.369	50	103		70	130
4-Chloroaniline	1	0		58.3131	50	117		50	150
Hexachlorobutadiene	1	0		49.5117	50	99		70	130
Caprolactam	1	0		52.6849	50	105		70	130
4-Chloro-3-methylphenol	1	0		51.6178	50	103		70	130
2-Methylnaphthalene	1	0		48.7198	50	97		70	130
1-Methylnaphthalene	1	0		53.3711	50	107		70	130
1.1'-Biphenyl	1	0		54.2426	50	108		70	130
1.2.4.5-Tetrachlorobenzene	1	0		45.1917	50	90		70	130
Hexachlorocyclopentadiene	1	0		50.25	50	100		70	130
2.4.6-Trichlorophenol	1	0		51.9571	50	104		70	130
2.4.5-Trichlorophenol	1	0		52.9385	50	106		70	130
2-Chloronaphthalene	1	0		50.8633	50	102		70	130
1.4-Dimethylnaphthalene	1	0		52.2619	50	105		70	130
Diphenyl Ether	1	0		48.0807	50	96		70	130
2-Nitroaniline	1	0		52.7132	50	105		70	130
Acenaphthylene	1	0		53.1092	50	106		70	130
Dimethylphthalate	1	0		51.4895	50	103		70	130
2.6-Dinitrotoluene	1	0		51.9303	50	104		70	130
Acenaphthene	1	0		51.1823	50	102		70	130
3-Nitroaniline	1	0		57.1057	50	114		70	130
2.4-Dinitrophenol	1	0		42.8039	50	86		70	130
Dibenzofuran	1	0		50.6547	50	101		70	130
2.4-Dinitrotoluene	1	0		50.1367	50	100		70	130
4-Nitrophenol	1	0		51.4355	50	103		70	130
2.3.4.6-Tetrachlorophenol	1	0		46.4674	50	97		70	130
Fluorene	1	0		50.6165	50	101		70	130
4-Chlorophenyl-phenylether	1	0		49.904	50	100		70	130
Diethylphthalate	1	0		50.7479	50	101		70	130
4-Nitroaniline	1	0		52.2609	50	105		70	130
Atrazine	1	0		57.1666	50	114		70	130
4.6-Dinitro-2-methylphenol	1	0		44.4154	50	89		70	130
n-Nitrosodiphenylamine	1	0		42.3715	50	85		70	130
1.2-Diphenylhydrazine	1	0		48.531	50	97		70	130
4-Bromophenyl-phenylether	1	0		51.0053	50	102		70	130
Hexachlorobenzene	1	0		50.5191	50	101		70	130
Pentachlorophenol	1	0		49.3806	50	99		70	130
Phenanthrene	1	0		48.9469	50	98		70	130
Anthracene	1	0		50.3363	50	101		70	130
Carbazole	1	0		51.079	50	102		70	130
Di-n-butylphthalate	1	0		48.0013	50	96		70	130
Fluoranthene	1	0		44.684	50	89		70	130
Pyrene	1	0		50.3121	50	101		70	130
Benzidine	1	0		35.8181	50	72		50	150
Butylbenzylphthalate	1	0		51.1944	50	102		70	130
3.3'-Dichlorobenzidine	1	0		57.3235	50	115		50	150
Benzo[a]anthracene	1	0		49.9868	50	100		70	130
Chrysene	1	0		51.383	50	103		70	130
bis(2-Ethylhexyl)phthalate	1	0		51.5532	50	103		70	130
Di-n-octylphthalate	1	0		55.9078	50	112		70	130
Benzo[b]fluoranthene	1	0		52.7984	50	106		70	130
Benzo[k]fluoranthene	1	0		54.3197	50	109		70	130
Benzo[a]pyrene	1	0		53.8802	50	108		70	130
Indeno[1.2.3-cd]pyrene	1	0		53.2589	50	107		70	130
Dibenzo[a.h]anthracene	1	0		52.8958	50	106		70	130
Benzo[g.h.i]perylene	1	0		50.1706	50	100		70	130

TxtDfile: 7M87279.D ICV FORM Date/Time: 10/19/17 13:58 7111017 0268

Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
1.4-Dioxane	1	0		44.4011	50	89		70	130
Pyridine	1	0		47.3736	50	95		50	150
N-Nitrosodimethylamine	1	0		51.7775	50	104		70	130
Benzaldehyde	1	0		91.0654	50	182	*	50	150
Aniline	1	0		57.3656	50	115		50	150
Pentachloroethane	1	0		52.4563	50	105		70	130
bis(2-Chloroethyl)ether	1	0		50.0679	50	100		70	130
Phenol	1	0		52.502	50	105		70	130
2-Chlorophenol	1	0		52.5996	50	105		70	130
1.3-Dichlorobenzene	1	0		52.5426	50	105		70	130
1.4-Dichlorobenzene	1	0		51.6819	50	103		70	130
1.2-Dichlorobenzene	1	0		50.1196	50	100		70	130
Benzyl alcohol	1	0		50.3082	50	101		70	130
bis(2-chloroisopropyl)ether	1	0		49.579	50	99		70	130
2-Methylphenol	1	0		50.2038	50	100		70	130
Acetophenone	1	0		48.2599	50	97		70	130
Hexachloroethane	1	0		50.0922	50	100		70	130
N-Nitroso-di-n-propylamine	1	0		53.0977	50	106		70	130
3&4-Methylphenol	1	0		53.155	50	106		70	130
Nitrobenzene	1	0		51.3437	50	103		70	130
Isophorone	1	0		52.519	50	105		70	130
2-Nitrophenol	1	0		49.4382	50	99		70	130
2.4-Dimethylphenol	1	0		49.6794	50	99		70	130
Benzoic Acid	1	0		22.6396	50	45	*	70	130
bis(2-Chloroethoxy)methane	1	0		50.2393	50	100		70	130
2.4-Dichlorophenol	1	0		52.625	50	105		70	130
1.2.4-Trichlorobenzene	1	0		50.1363	50	100		70	130
Naphthalene	1	0		54.1132	50	108		70	130
4-Chloroaniline	1	0		61.9251	50	124		50	150
Hexachlorobutadiene	1	0		48.7148	50	97		70	130
Caprolactam	1	0		48.4595	50	97		70	130
4-Chloro-3-methylphenol	1	0		50.9185	50	102		70	130
2-Methylnaphthalene	1	0		48.5628	50	97		70	130
1-Methylnaphthalene	1	0		49.7393	50	99		70	130
1.1'-Biphenyl	1	0		48.8188	50	98		70	130
1.2.4.5-Tetrachlorobenzene	1	0		48.1464	50	96		70	130
Hexachlorocyclopentadiene	1	0		50.1792	50	100		70	130
2.4.6-Trichlorophenol	1	0		50.0302	50	100		70	130
2.4.5-Trichlorophenol	1	0		57.1314	50	114		70	130
2-Chloronaphthalene	1	0		52.6385	50	105		70	130
1.4-Dimethylnaphthalene	1	0		52.3704	50	105		70	130
Diphenyl Ether	1	0		48.1386	50	96		70	130
2-Nitroaniline	1	0		52.7303	50	105		70	130
Acenaphthylene	1	0		54.2887	50	109		70	130
Dimethylphthalate	1	0		51.4887	50	103		70	130
2.6-Dinitrotoluene	1	0		51.9505	50	104		70	130
Acenaphthene	1	0		51.2993	50	103		70	130
3-Nitroaniline	1	0		56.6324	50	113		70	130
2.4-Dinitrophenol	1	0		42.939	50	86		70	130
Dibenzofuran	1	0		52.5557	50	105		70	130
2.4-Dinitrotoluene	1	0		50.1222	50	100		70	130
4-Nitrophenol	1	0		48.5782	50	97		70	130
2.3.4.6-Tetrachlorophenol	1	0		47.8989	50	96		70	130
Fluorene	1	0		52.9135	50	106		70	130
4-Chlorophenyl-phenylether	1	0		52.442	50	105		70	130
Diethylphthalate	1	0		53.6157	50	107		70	130
4-Nitroaniline	1	0		52.0252	50	104		70	130
Atrazine	1	0		56.3692	50	113		70	130
4.6-Dinitro-2-methylphenol	1	0		48.4866	50	97		70	130
n-Nitrosodiphenylamine	1	0		44.5361	50	89		70	130
1.2-Diphenylhydrazine	1	0		51.6219	50	103		70	130
4-Bromophenyl-phenylether	1	0		49.8707	50	100		70	130
Hexachlorobenzene	1	0		50.8145	50	102		70	130
Pentachlorophenol	1	0		51.3011	50	103		70	130
Phenanthrene	1	0		49.9099	50	100		70	130
Anthracene	1	0		50.7377	50	101		70	130
Carbazole	1	0		52.6392	50	105		70	130
Di-n-butylphthalate	1	0		55.965	50	112		70	130
Fluoranthene	1	0		51.7505	50	104		70	130
Pyrene	1	0		49.9719	50	100		70	130
Benzidine	1	0		36.1465	50	72		50	150
Butylbenzylphthalate	1	0		51.7739	50	104		70	130
3.3'-Dichlorobenzidine	1	0		57.6235	50	115		50	150
Benzo[a]anthracene	1	0		50.2956	50	101		70	130
Chrysene	1	0		51.8539	50	104		70	130
bis(2-Ethylhexyl)phthalate	1	0		56.3464	50	113		70	130
Di-n-octylphthalate	1	0		53.8004	50	108		70	130
Benzo[b]fluoranthene	1	0		53.2143	50	106		70	130
Benzo[k]fluoranthene	1	0		54.5615	50	109		70	130
Benzo[a]pyrene	1	0		54.1354	50	108		70	130
Indeno[1.2.3-cd]pyrene	1	0		54.2592	50	109		70	130
Dibenzo[a.h]anthracene	1	0		53.1869	50	106		70	130
Benzo[g.h.i]perylene	1	0		49.9036	50	100		70	130

GC/MS Base Neutral/Acid Extractable Data
Raw QC Data

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M65424.D
Analysis Date: 10/11/17 11:02
Method: EPA 8270D

Tune Scan/Time Range: Scan 1462

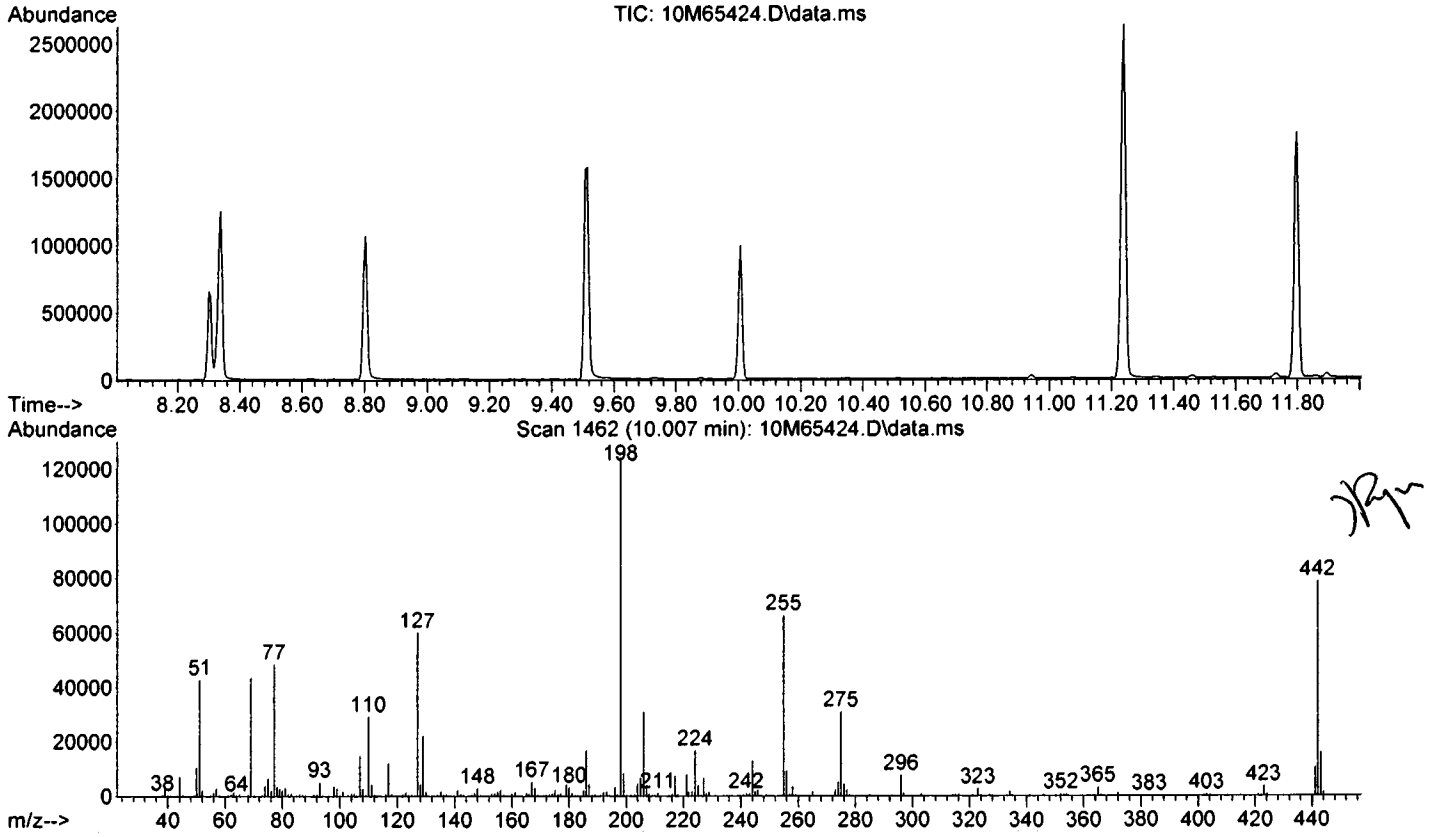
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	34.6	42912	PASS
68	69	0.00	2	1.4	631	PASS
69	198	0.00	100	35.2	43728	PASS
70	69	0.00	2	0.9	411	PASS
127	198	40	60	48.5	60160	PASS
197	198	0.00	1	0.6	725	PASS
198	198	100	100	100.0	124112	PASS
199	198	5	9	6.8	8409	PASS
275	198	10	30	25.0	31000	PASS
365	198	1	100	2.7	3295	PASS
441	443	0.01	100	66.6	10632	PASS
442	198	40	100	63.5	78752	PASS
443	442	17	23	20.3	15957	PASS

Data File	Sample Number	Analysis Date:
10M65425.D	CAL BNA@10PPM	10/11/17 12:08
10M65426.D	CAL BNA@2PPM	10/11/17 12:48
10M65427.D	CAL BNA@196PP	10/11/17 13:10
10M65428.D	CAL BNA@160PP	10/11/17 13:33
10M65429.D	CAL BNA@120PP	10/11/17 13:55
10M65430.D	CAL BNA@80PPM	10/11/17 14:17
10M65431.D	CAL BNA@50PPM	10/11/17 14:39
10M65432.D	CAL BNA@20PPM	10/11/17 15:01
10M65433.D	CAL BNA@.5PPM	10/11/17 15:24
10M65434.D	CAL BNA@10PPM	10/11/17 15:51
10M65435.D	CAL BNA@50PPM	10/11/17 16:13
10M65436.D	ICV BNA@50PPM	10/11/17 16:35

Data Path : G:\GcMsData\2017\GCMS_10\Data\10-11-17\
Data File : 10M65424.D
Acq On : 11 Oct 2017 11:02
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_10\METHODQT\10M_0911.M
Title : @GCMS_10,mg,625,8270
Last Update : Mon Sep 11 13:11:29 2017



Spectrum Information: Scan 1462

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.6	42912	PASS
68	69	0.00	2	1.4	631	PASS
69	198	0.00	100	35.2	43728	PASS
70	69	0.00	2	0.9	411	PASS
127	198	40	60	48.5	60160	PASS
197	198	0.00	1	0.6	725	PASS
198	198	100	100	100.0	124112	PASS
199	198	5	9	6.8	8409	PASS
275	198	10	30	25.0	31000	PASS
365	198	1	100	2.7	3295	PASS
441	443	0.01	100	66.6	10632	PASS
442	198	40	100	63.5	78752	PASS
443	442	17	23	20.3	15957	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7
Data File: 7M87268.D
Analysis Date: 10/19/17 09:03
Method: EPA 8270D

Tune Scan/Time Range: Average of 10.003 to 10.009 min

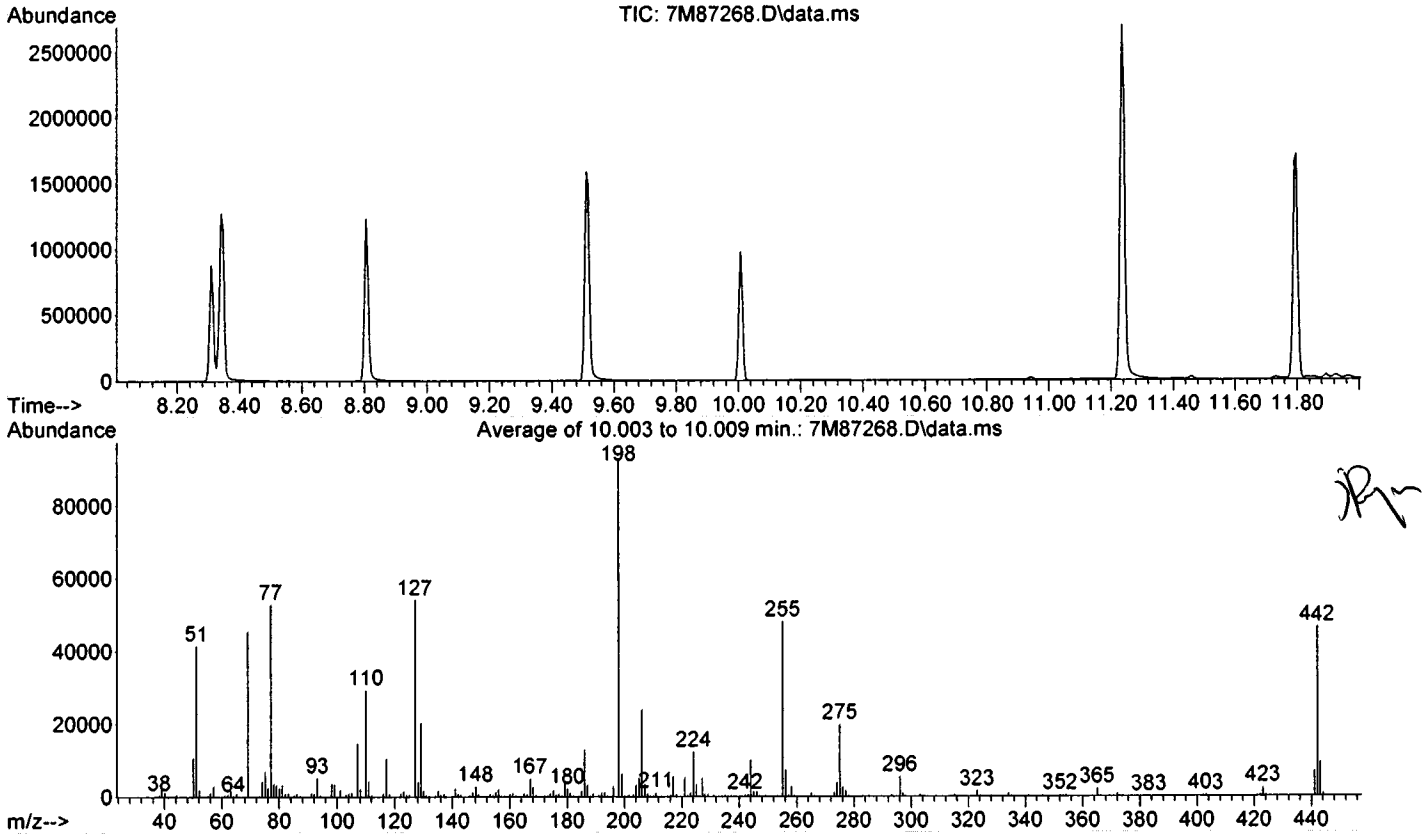
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	44.7	41608	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.0	45560	PASS
70	69	0.00	2	0.6	275	PASS
127	198	40	60	58.3	54188	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	93004	PASS
199	198	5	9	6.8	6361	PASS
275	198	10	30	21.3	19815	PASS
365	198	1	100	2.4	2198	PASS
441	443	0.01	100	73.9	6922	PASS
442	198	40	100	50.0	46472	PASS
443	442	17	23	20.2	9368	PASS

Data File	Sample Number	Analysis Date:
7M87269.D	CAL BNA@10PPM	10/19/17 09:26
7M87270.D	CAL BNA@2PPM	10/19/17 10:27
7M87271.D	CAL BNA@10PPM	10/19/17 10:51
7M87272.D	CAL BNA@196PP	10/19/17 11:15
7M87273.D	CAL BNA@160PP	10/19/17 11:38
7M87274.D	CAL BNA@120PP	10/19/17 12:02
7M87275.D	CAL BNA@80PPM	10/19/17 12:25
7M87276.D	CAL BNA@20PPM	10/19/17 12:48
7M87277.D	CAL BNA@.5PPM	10/19/17 13:11
7M87278.D	CAL BNA@50PPM	10/19/17 13:35
7M87279.D	ICV BNA@50PPM	10/19/17 13:58

Data Path : G:\GcMsData\2017\GCMS_7\Data\10-19-17\
Data File : 7M87268.D
Acq On : 19 Oct 2017 9:03
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_7\METHODQT\7M_1016.M
Title : @GCMS_7,mg,625,8270
Last Update : Mon Oct 16 15:11:03 2017



Spectrum Information: Average of 10.003 to 10.009 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.7	41608	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.0	45560	PASS
70	69	0.00	2	0.6	275	PASS
127	198	40	60	58.3	54188	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	93004	PASS
199	198	5	9	6.8	6361	PASS
275	198	10	30	21.3	19815	PASS
365	198	1	100	2.4	2198	PASS
441	443	0.01	100	73.9	6922	PASS
442	198	40	100	50.0	46472	PASS
443	442	17	23	20.2	9368	PASS

Form 5

Tune Name: CAL DFTPP **Data File:** 5M101319.D
Instrument: GCMS 5 **Analysis Date:** 10/20/17 08:27
Method: EPA 8270D
Tune Scan/Time Range: Average of 9.907 to 9.907 min

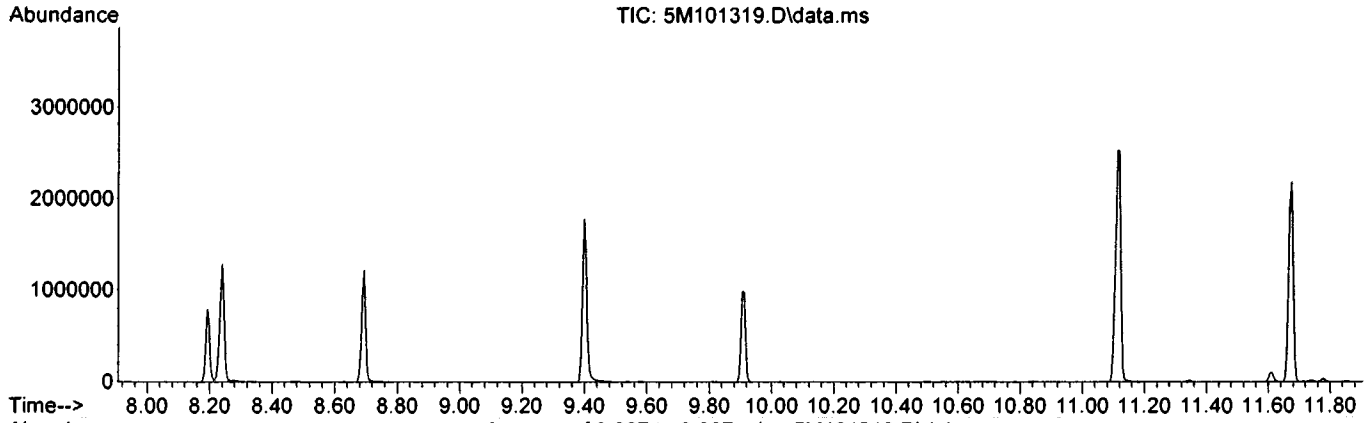
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	37.7	46456	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.3	48400	PASS
70	69	0.00	2	0.6	282	PASS
127	198	40	60	49.1	60544	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123224	PASS
199	198	5	9	6.5	8056	PASS
275	198	10	30	22.4	27568	PASS
365	198	1	100	2.3	2868	PASS
441	443	0.01	100	78.9	10002	PASS
442	198	40	100	52.9	65168	PASS
443	442	17	23	19.5	12677	PASS

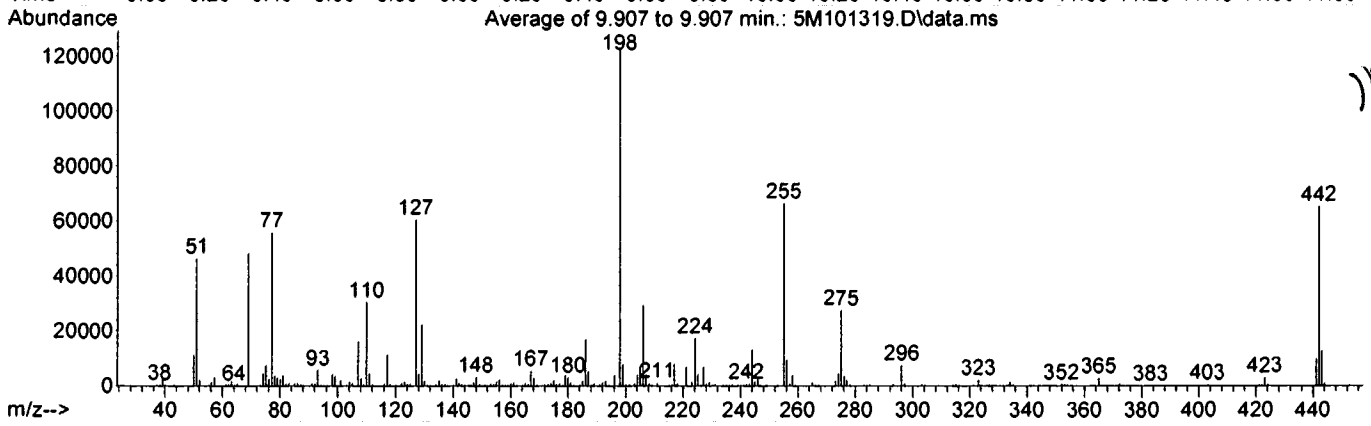
Data File	Sample Number	Analysis Date:
5M101320.D	CAL BNA@50PPM	10/20/17 08:56
5M101321.D	CAL BNA@10PPM	10/20/17 09:25
5M101322.D	CAL BNA@2PPM	10/20/17 09:48
5M101323.D	CAL BNA@196PP	10/20/17 10:26
5M101324.D	CAL BNA@160PP	10/20/17 10:49
5M101325.D	CAL BNA@120PP	10/20/17 11:12
5M101326.D	CAL BNA@80PPM	10/20/17 11:34
5M101327.D	CAL BNA@20PPM	10/20/17 11:57
5M101328.D	CAL BNA@.5PPM	10/20/17 12:20
5M101329.D	CAL BNA@50PPM	10/20/17 12:43
5M101330.D	ICV BNA@50PPM	10/20/17 13:06

Data Path : G:\GcMsData\2017\GCMS_5\Data\10-20-17\
Data File : 5M101319.D
Acq On : 20 Oct 2017 8:27
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_5\METHODQT\5M_1019.M
Title : @GCMS_5,mg,625,8270
Last Update : Thu Oct 19 13:43:08 2017





Spectrum Information: Average of 9.907 to 9.907 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.7	46456	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.3	48400	PASS
70	69	0.00	2	0.6	282	PASS
127	198	40	60	49.1	60544	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123224	PASS
199	198	5	9	6.5	8056	PASS
275	198	10	30	22.4	27568	PASS
365	198	1	100	2.3	2868	PASS
441	443	0.01	100	78.9	10002	PASS
442	198	40	100	52.9	65168	PASS
443	442	17	23	19.5	12677	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7
Data File: 7M87594.D
Analysis Date: 11/13/17 09:03
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.998 to 10.003 min

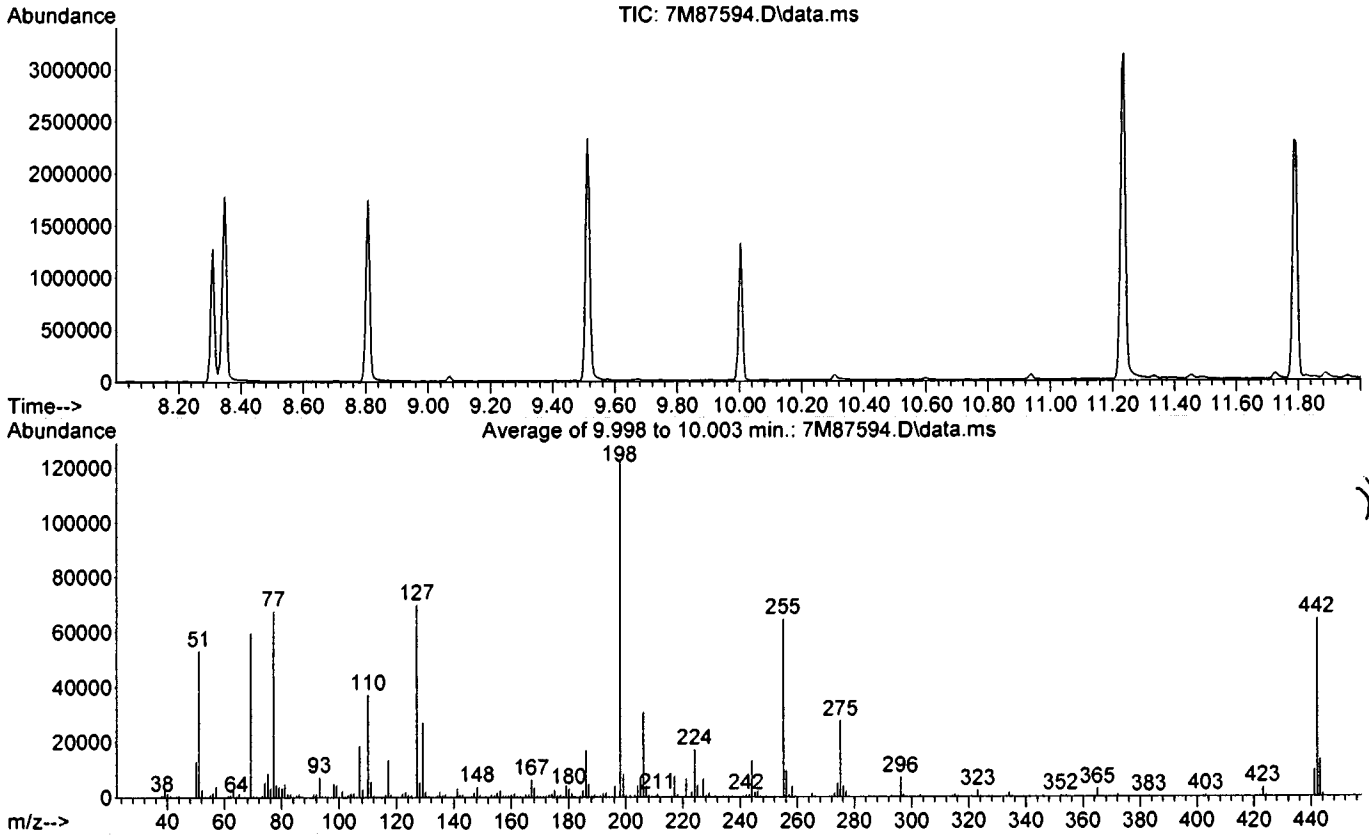
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	43.3	53236	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.5	59664	PASS
70	69	0.00	2	1.1	629	PASS
127	198	40	60	56.9	70004	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123016	PASS
199	198	5	9	6.9	8460	PASS
275	198	10	30	22.5	27632	PASS
365	198	1	100	2.4	2966	PASS
441	443	0.01	100	70.9	9570	PASS
442	198	40	100	52.5	64600	PASS
443	442	17	23	20.9	13488	PASS

Data File	Sample Number	Analysis Date:
7M87595.D	CAL BNA@50PPM	11/13/17 09:31
7M87596.D	WMB63382(MS)	11/13/17 09:57
7M87597.D	WMB63382	11/13/17 10:21
7M87598.D	01064-014	11/13/17 10:44
7M87599.D	01063-014	11/13/17 11:07
7M87600.D	01063-017(MS:AD0	11/13/17 11:30
7M87601.D	01063-018(MSD:A	11/13/17 11:54
7M87602.D	01063-015	11/13/17 12:17
7M87603.D	01063-016	11/13/17 12:40
7M87604.D	01063-019	11/13/17 13:04
7M87605.D	01063-020	11/13/17 13:27
7M87606.D	01063-021	11/13/17 13:50
7M87607.D	WMB63387(MS)	11/13/17 14:13
7M87608.D	WMB63387	11/13/17 14:37
7M87609.D	AD01096-001	11/13/17 15:31
7M87610.D	AD01096-002(MS:	11/13/17 15:54
7M87611.D	AD01096-003(MSD	11/13/17 16:18
7M87612.D	AD01096-004	11/13/17 16:41
7M87613.D	AD01096-005	11/13/17 17:04
7M87614.D	AD01096-006	11/13/17 17:28
7M87615.D	AD01096-007	11/13/17 17:51
7M87616.D	AD01096-008	11/13/17 18:15
7M87617.D	AD01096-009	11/13/17 18:38
7M87618.D	AD01096-010	11/13/17 19:01
7M87619.D	AD01096-011	11/13/17 19:25
7M87620.D	AD01096-012	11/13/17 19:48
7M87621.D	AD01096-013	11/13/17 20:12
7M87622.D	AD01096-014	11/13/17 20:35

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Data File : 7M87594.D
Acq On : 13 Nov 2017 9:03
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_7\METHODQT\7M_1019.M
Title : @GCMS_7,mg,625,8270
Last Update : Thu Oct 19 15:21:36 2017



Spectrum Information: Average of 9.998 to 10.003 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.3	53236	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.5	59664	PASS
70	69	0.00	2	1.1	629	PASS
127	198	40	60	56.9	70004	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	123016	PASS
199	198	5	9	6.9	8460	PASS
275	198	10	30	22.5	27632	PASS
365	198	1	100	2.4	2966	PASS
441	443	0.01	100	70.9	9570	PASS
442	198	40	100	52.5	64600	PASS
443	442	17	23	20.9	13488	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M66012.D
Analysis Date: 11/13/17 09:06
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.991 to 10.001 min

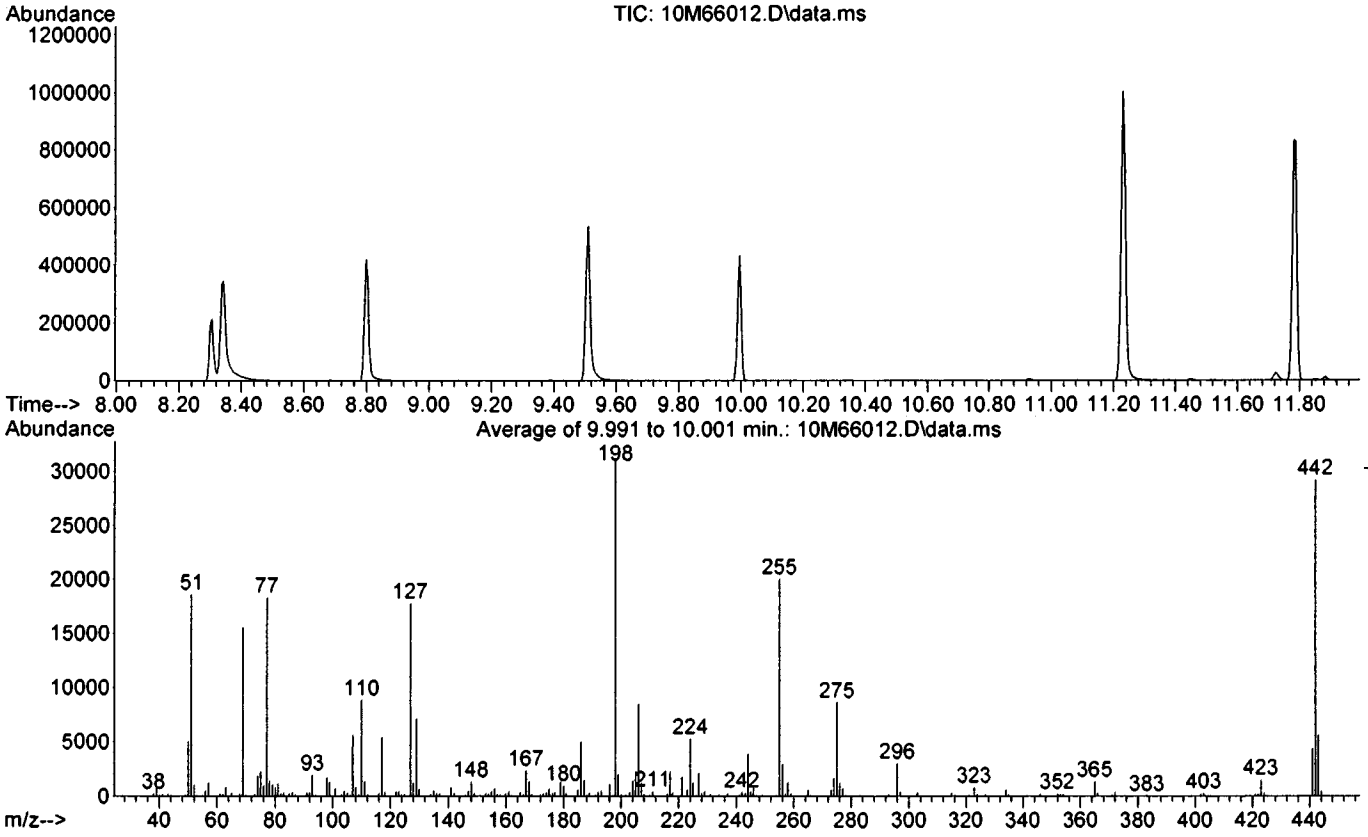
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	59.6	18623	PASS
68	69	0.00	2	1.2	192	PASS
69	198	0.00	100	49.8	15574	PASS
70	69	0.00	2	0.8	127	PASS
127	198	40	60	56.9	17790	PASS
197	198	0.00	1	0.3	94	PASS
198	198	100	100	100.0	31243	PASS
199	198	5	9	6.5	2023	PASS
275	198	10	30	27.7	8650	PASS
365	198	1	100	4.3	1354	PASS
441	443	0.01	100	77.3	4366	PASS
442	198	40	100	93.5	29219	PASS
443	442	17	23	19.3	5644	PASS

Data File	Sample Number	Analysis Date:
10M66013.D	BNA@50PPM	11/13/17 10:26
10M66014.D	CAL BNA@50PPM	11/13/17 13:15
10M66015.D	WMB63387	11/13/17 14:10
10M66016.D	SMB63395(MS)	11/13/17 14:32
10M66017.D	SMB63395	11/13/17 14:55
10M66018.D	SMB63391(MS)	11/13/17 15:17
10M66019.D	SMB63391	11/13/17 15:39
10M66020.D	AD01096-015(5X)	11/13/17 16:01
10M66021.D	AD01096-016	11/13/17 16:23
10M66022.D	AD01080-015	11/13/17 16:46
10M66023.D	AD01080-019	11/13/17 17:08
10M66024.D	AD01080-002	11/13/17 17:30
10M66025.D	AD01080-003	11/13/17 17:52
10M66026.D	AD01080-005	11/13/17 18:15

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-13-17\
Data File : 10M66012.D
Acq On : 13 Nov 2017 9:06
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_10\METHODQT\10M_1011.M
Title : @GCMS_10,mg,625,8270
Last Update : Wed Oct 11 16:38:16 2017



Spectrum Information: Average of 9.991 to 10.001 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.6	18623	PASS
68	69	0.00	2	1.2	192	PASS
69	198	0.00	100	49.8	15574	PASS
70	69	0.00	2	0.8	127	PASS
127	198	40	60	56.9	17790	PASS
197	198	0.00	1	0.3	94	PASS
198	198	100	100	100.0	31243	PASS
199	198	5	9	6.5	2023	PASS
275	198	10	30	27.7	8650	PASS
365	198	1	100	4.3	1354	PASS
441	443	0.01	100	77.3	4366	PASS
442	198	40	100	93.5	29219	PASS
443	442	17	23	19.3	5644	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7
Data File: 7M87623.D
Analysis Date: 11/14/17 08:38
Method: EPA 8270D

Tune Scan/Time Range: Scan 1434

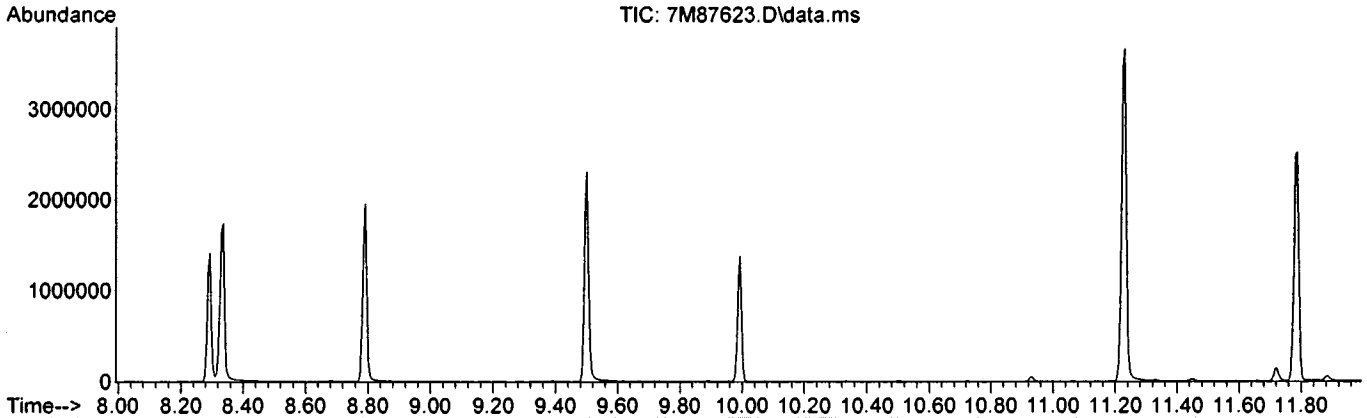
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	35.7	57184	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.4	67792	PASS
70	69	0.00	2	0.8	571	PASS
127	198	40	60	53.6	85744	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	160000	PASS
199	198	5	9	6.9	11004	PASS
275	198	10	30	26.0	41544	PASS
365	198	1	100	2.7	4302	PASS
441	443	0.01	100	77.6	16488	PASS
442	198	40	100	69.9	111872	PASS
443	442	17	23	19.0	21248	PASS

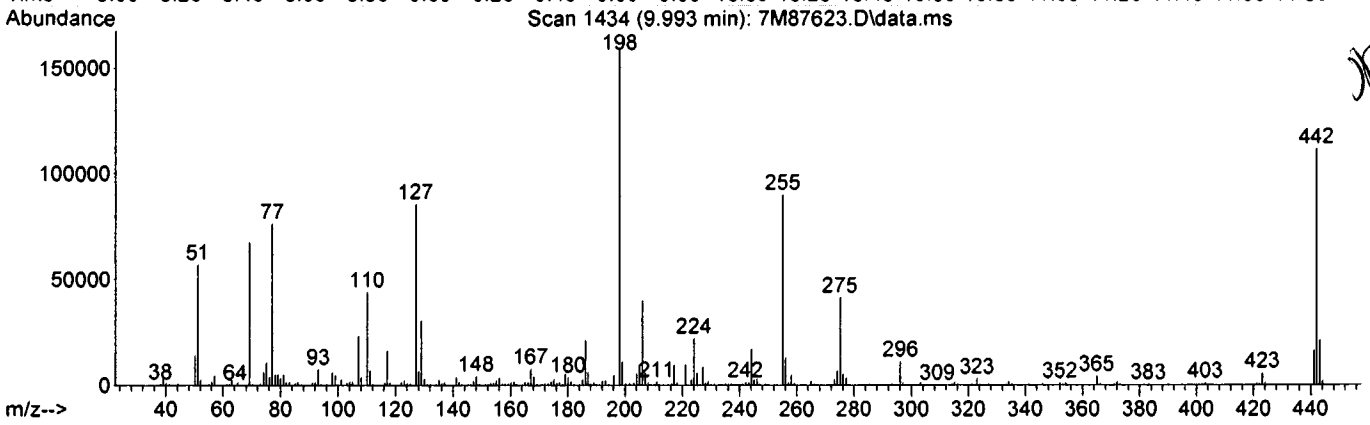
Data File	Sample Number	Analysis Date:
7M87624.D	CAL BNA@50PPM	11/14/17 09:03
7M87625.D	WMB63390	11/14/17 09:33
7M87626.D	AD00971-001(T)	11/14/17 09:56
7M87627.D	AD00920-009(T)	11/14/17 10:20
7M87628.D	AD01015-001(T)	11/14/17 10:43
7M87629.D	AD00920-009(10X)	11/14/17 11:06
7M87630.D	WMB63390	11/14/17 11:30
7M87631.D	AD01071-001	11/14/17 11:53
7M87632.D	AD01071-002	11/14/17 12:17
7M87633.D	AD01071-003	11/14/17 12:40
7M87634.D	AD01071-004	11/14/17 13:04
7M87635.D	AD01071-005	11/14/17 13:27
7M87636.D	AD01071-006	11/14/17 13:50
7M87637.D	WMB63394	11/14/17 14:14
7M87638.D	AD00920-009(T)(R)	11/14/17 15:45
7M87639.D	WMB63402	11/14/17 16:09
7M87640.D	SMB63407(MS)	11/14/17 16:33
7M87641.D	SMB63407	11/14/17 16:57
7M87642.D	AD01063-001	11/14/17 17:21
7M87643.D	AD01063-002(10X)	11/14/17 17:44
7M87644.D	AD01063-003	11/14/17 18:08
7M87645.D	AD01063-004	11/14/17 18:31
7M87646.D	AD01063-006	11/14/17 18:55
7M87647.D	AD01063-008	11/14/17 19:19
7M87648.D	AD01063-011	11/14/17 19:42
7M87649.D	AD01063-013	11/14/17 20:05

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-14-17\
Data File : 7M87623.D
Acq On : 14 Nov 2017 8:38
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_7\METHODQT\7M_1019.M
Title : @GCMS_7,mg,625,8270
Last Update : Thu Oct 19 15:21:36 2017





Spectrum Information: Scan 1434

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.7	57184	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.4	67792	PASS
70	69	0.00	2	0.8	571	PASS
127	198	40	60	53.6	85744	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	160000	PASS
199	198	5	9	6.9	11004	PASS
275	198	10	30	26.0	41544	PASS
365	198	1	100	2.7	4302	PASS
441	443	0.01	100	77.6	16488	PASS
442	198	40	100	69.9	111872	PASS
443	442	17	23	19.0	21248	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 5
Data File: 5M101507.D
Analysis Date: 11/14/17 08:38
Method: EPA 8270D

Tune Scan/Time Range: Scan 1416

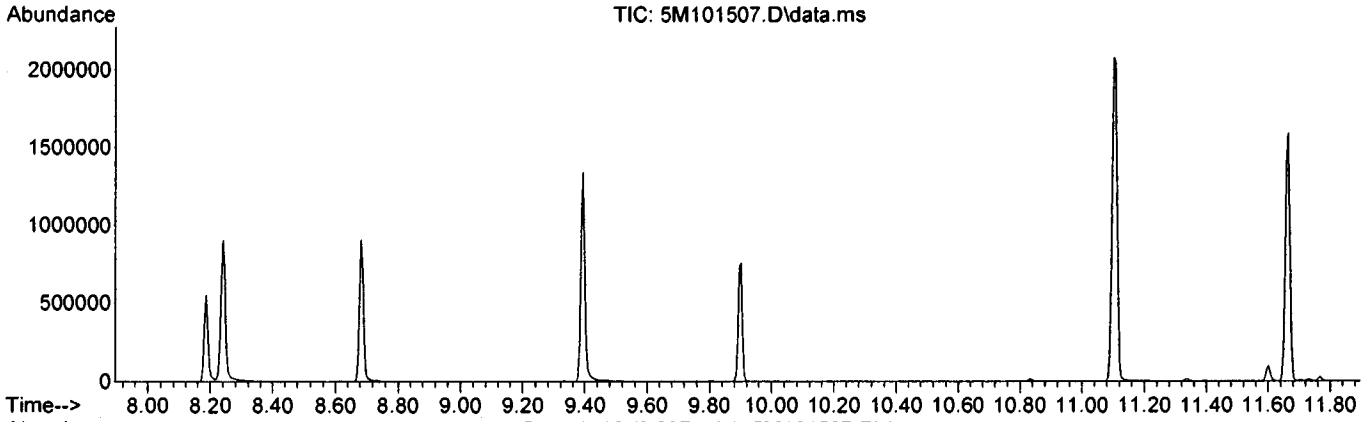
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	38.2	34928	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.4	36024	PASS
70	69	0.00	2	0.8	274	PASS
127	198	40	60	50.2	45952	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	91496	PASS
199	198	5	9	7.1	6473	PASS
275	198	10	30	22.0	20168	PASS
365	198	1	100	2.3	2065	PASS
441	443	0.01	100	75.9	7035	PASS
442	198	40	100	50.1	45816	PASS
443	442	17	23	20.2	9263	PASS

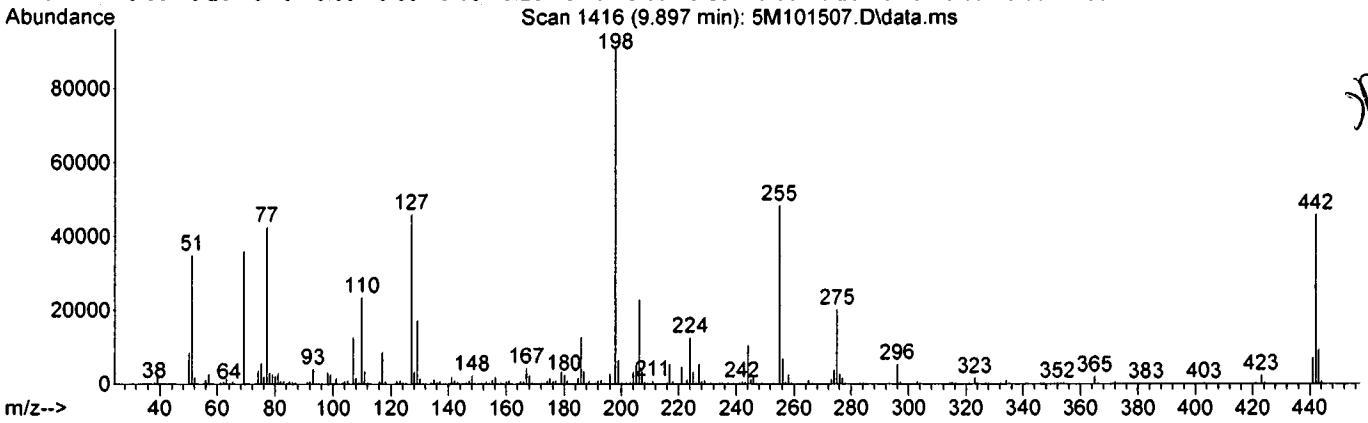
Data File	Sample Number	Analysis Date:
5M101508.D	CAL BNA@50PPM	11/14/17 09:01
5M101509.D	EF-1 V-266631(11/	11/14/17 09:37
5M101510.D	EF-1 V-266631(11/	11/14/17 10:00
5M101511.D	AD01055-009	11/14/17 10:23
5M101512.D	AD01028-013(R)	11/14/17 10:46
5M101513.D	AD01050-005(R)	11/14/17 11:09
5M101514.D	AD01066-001	11/14/17 11:47
5M101515.D	WMB63387(MS)	11/14/17 12:10
5M101516.D	WMB63394(MS)	11/14/17 12:33
5M101517.D	WMB63394	11/14/17 12:57
5M101518.D	AD01067-001	11/14/17 13:20
5M101519.D	AD01067-002	11/14/17 13:43
5M101520.D	AD01063-014(10X)	11/14/17 15:39
5M101521.D	WMB63402(MS)	11/14/17 16:03
5M101522.D	WMB63402	11/14/17 16:27
5M101523.D	AD01063-017(10X)	11/14/17 16:52
5M101524.D	AD01063-018(10X)	11/14/17 17:15
5M101525.D	AD01063-015	11/14/17 17:38
5M101526.D	AD01063-016	11/14/17 18:02
5M101527.D	AD01063-019	11/14/17 18:25
5M101528.D	AD01063-020	11/14/17 18:49
5M101529.D	AD01063-021	11/14/17 19:12
5M101530.D	AD01063-022	11/14/17 19:36
5M101531.D	AD01063-023	11/14/17 19:59
5M101532.D	AD01063-024	11/14/17 20:23

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Data File : 5M101507.D
Acq On : 14 Nov 2017 8:38
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_5\METHODQT\5M_1020.M
Title : @GCMS_5,mg,625,8270
Last Update : Fri Oct 20 14:48:39 2017





Spectrum Information: Scan 1416

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.2	34928	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.4	36024	PASS
70	69	0.00	2	0.8	274	PASS
127	198	40	60	50.2	45952	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	91496	PASS
199	198	5	9	7.1	6473	PASS
275	198	10	30	22.0	20168	PASS
365	198	1	100	2.3	2065	PASS
441	443	0.01	100	75.9	7035	PASS
442	198	40	100	50.1	45816	PASS
443	442	17	23	20.2	9263	PASS

Form 5

Tune Name: CAL DFTPP **Data File:** 7M87650.D
Instrument: GCMS 7 **Analysis Date:** 11/15/17 09:04
Method: EPA 8270D

Tune Scan/Time Range: Average of 9.987 to 9.993 min

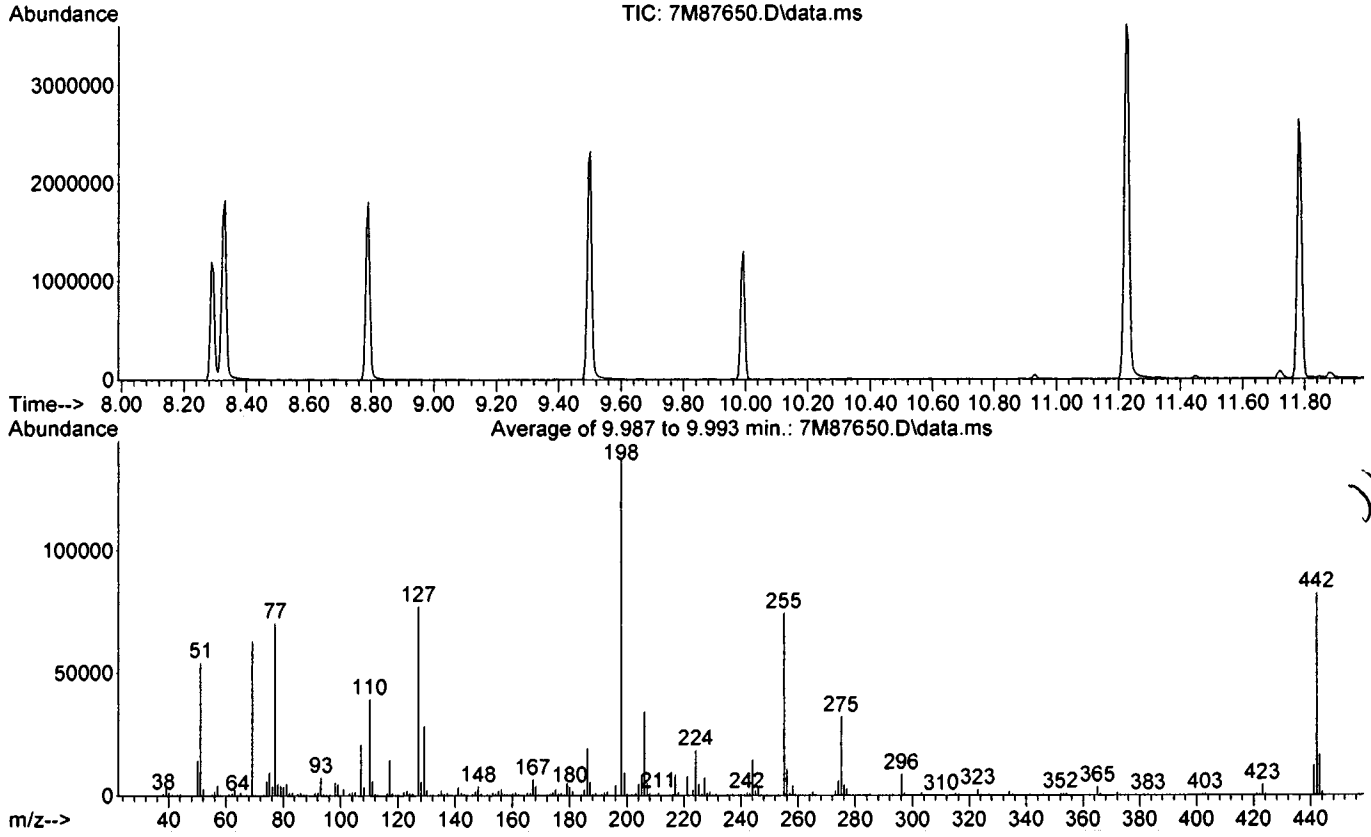
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	39.5	54340	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	63036	PASS
70	69	0.00	2	0.6	352	PASS
127	198	40	60	56.0	77120	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	137712	PASS
199	198	5	9	6.7	9201	PASS
275	198	10	30	23.3	32148	PASS
365	198	1	100	2.5	3392	PASS
441	443	0.01	100	74.1	12178	PASS
442	198	40	100	59.7	82224	PASS
443	442	17	23	20.0	16442	PASS

Data File	Sample Number	Analysis Date:
7M87651.D	CAL BNA@50PPM	11/15/17 09:29
7M87652.D	AD01097-006	11/15/17 10:36
7M87653.D	AD01097-007(MS:	11/15/17 11:00
7M87654.D	AD01097-008(MSD	11/15/17 11:23
7M87655.D	AD01097-001	11/15/17 11:46
7M87656.D	AD01097-002	11/15/17 12:09
7M87657.D	AD01097-003	11/15/17 12:33
7M87658.D	AD01097-004	11/15/17 12:56
7M87659.D	AD01097-005	11/15/17 13:20
7M87660.D	AD01063-010(50X)	11/15/17 13:43
7M87661.D	WMB63410(MS)	11/15/17 14:06
7M87662.D	WMB63410	11/15/17 14:31
7M87663.D	AD01096-017	11/15/17 14:55
7M87664.D	AD01080-017	11/15/17 15:18
7M87665.D	WMB63412(MS)	11/15/17 15:42
7M87666.D	WMB63412	11/15/17 16:05
7M87667.D	WMB63410	11/15/17 16:28
7M87668.D	AD01106-001	11/15/17 16:52
7M87669.D	AD01106-002	11/15/17 17:15
7M87670.D	AD01106-002(MS)	11/15/17 17:39
7M87671.D	AD01106-002(MSD	11/15/17 18:02
7M87672.D	AD01082-013	11/15/17 18:26
7M87673.D	AD01082-022(MS:	11/15/17 18:49
7M87674.D	AD01082-024(MSD	11/15/17 19:12
7M87675.D	AD01082-020	11/15/17 19:36
7M87676.D	AD01082-021	11/15/17 19:59
7M87677.D	AD01082-026	11/15/17 20:23
7M87678.D	AD01082-027	11/15/17 20:46
7M87679.D	AD01083-001	11/15/17 21:09
7M87680.D	AD01083-002	11/15/17 21:33
7M87681.D	AD01083-003	11/15/17 21:56

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Data File : 7M87650.D
Acq On : 15 Nov 2017 9:04
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_7\METHODQT\7M_1019.M
Title : @GCMS_7,mg,625,8270
Last Update : Thu Oct 19 15:21:36 2017



Spectrum Information: Average of 9.987 to 9.993 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.5	54340	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	63036	PASS
70	69	0.00	2	0.6	352	PASS
127	198	40	60	56.0	77120	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	137712	PASS
199	198	5	9	6.7	9201	PASS
275	198	10	30	23.3	32148	PASS
365	198	1	100	2.5	3392	PASS
441	443	0.01	100	74.1	12178	PASS
442	198	40	100	59.7	82224	PASS
443	442	17	23	20.0	16442	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 10
Data File: 10M66038.D
Analysis Date: 11/15/17 10:42
Method: EPA 8270D

Tune Scan/Time Range: Scan 1459

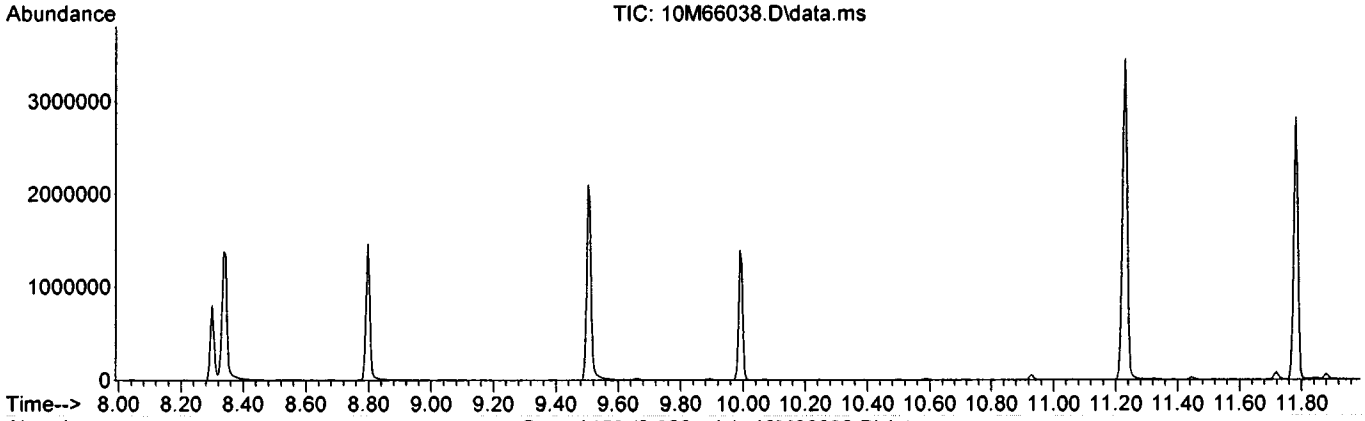
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	42.9	66792	PASS
68	69	0.00	2	1.9	1263	PASS
69	198	0.00	100	43.1	66952	PASS
70	69	0.00	2	0.6	415	PASS
127	198	40	60	52.9	82320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	155520	PASS
199	198	5	9	6.5	10053	PASS
275	198	10	30	25.7	39928	PASS
365	198	1	100	3.6	5549	PASS
441	443	0.01	100	73.9	13468	PASS
442	198	40	100	61.1	94968	PASS
443	442	17	23	19.2	18216	PASS

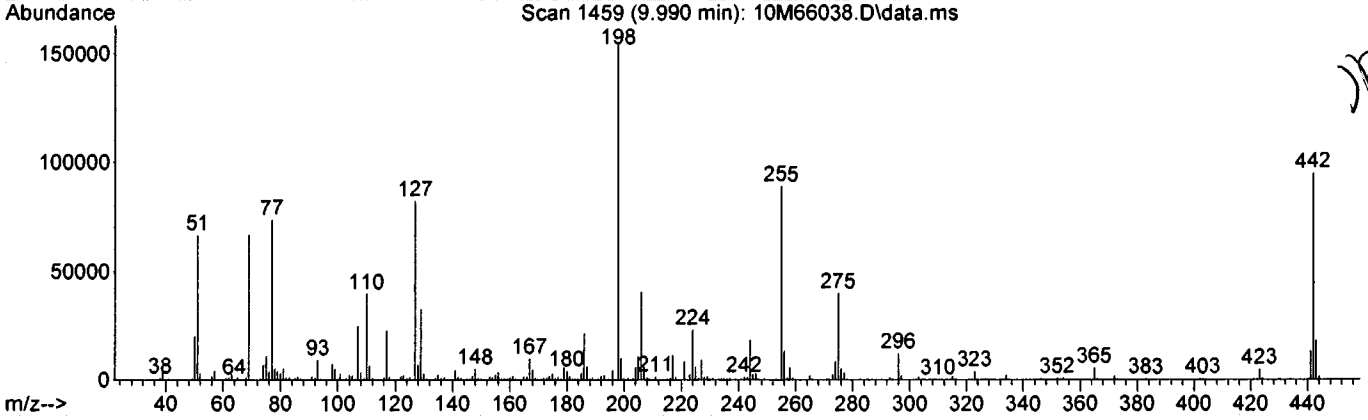
Data File	Sample Number	Analysis Date:
10M66039.D	CAL BNA@50PPM	11/15/17 11:11
10M66040.D	AD01055-002	11/15/17 11:35
10M66041.D	AD01055-004	11/15/17 11:57
10M66042.D	AD01055-006	11/15/17 12:19
10M66043.D	AD01055-008	11/15/17 12:41
10M66044.D	AD01055-001	11/15/17 13:03
10M66045.D	SMB63406(MS)	11/15/17 13:25
10M66046.D	OMB63405(MS)	11/15/17 13:48
10M66047.D	AD01111-001(3X)(	11/15/17 14:10
10M66048.D	AD01111-006(3X)(	11/15/17 14:32
10M66049.D	AD01111-010(3X)(	11/15/17 14:54
10M66050.D	SMB63406	11/15/17 15:17
10M66051.D	OMB63405	11/15/17 15:39
10M66052.D	WMB63410	11/15/17 16:01
10M66053.D	WMB63412	11/15/17 16:23
10M66054.D	AD01055-003	11/15/17 16:46
10M66055.D	AD01055-005	11/15/17 17:08
10M66056.D	AD01055-007	11/15/17 17:30
10M66057.D	AD01145-002(MS)	11/15/17 17:52
10M66058.D	AD01145-002(MSD	11/15/17 18:15
10M66059.D	AD01145-002	11/15/17 18:37
10M66060.D	AD01080-002(R)	11/15/17 18:59
10M66061.D	AD01097-009	11/15/17 19:21
10M66062.D	AD01097-010	11/15/17 19:44
10M66063.D	AD01097-011	11/15/17 20:06
10M66064.D	AD01097-012	11/15/17 20:28
10M66065.D	AD01097-013	11/15/17 20:50
10M66066.D	AD01096-015(5X)(	11/15/17 21:12

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-15-17\
Data File : 10M66038.D
Acq On : 15 Nov 2017 10:42
Operator : AH/JB
Sample : CAL DFTPP
Misc : A,BNA
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2017\GCMS_10\METHODQT\10M_1011.M
Title : @GCMS_10,mg,625,8270
Last Update : Wed Oct 11 16:38:16 2017





Spectrum Information: Scan 1459

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.9	66792	PASS
68	69	0.00	2	1.9	1263	PASS
69	198	0.00	100	43.1	66952	PASS
70	69	0.00	2	0.6	415	PASS
127	198	40	60	52.9	82320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	155520	PASS
199	198	5	9	6.5	10053	PASS
275	198	10	30	25.7	39928	PASS
365	198	1	100	3.6	5549	PASS
441	443	0.01	100	73.9	13468	PASS
442	198	40	100	61.1	94968	PASS
443	442	17	23	19.2	18216	PASS

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB63387
Client Id:
Data File: 7M87608.D
Analysis Date: 11/13/17 14:37
Date Rec/Extracted: NA-11/13/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0289

SampleID : WMB63387 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87608.D Sam Mult : 1 Vial# : 15 Qt On : 11/13/17 15:02
Acq On : 11/13/17 14:37 Misc : A,BN Qt Upd On: 11/13/17 12:55

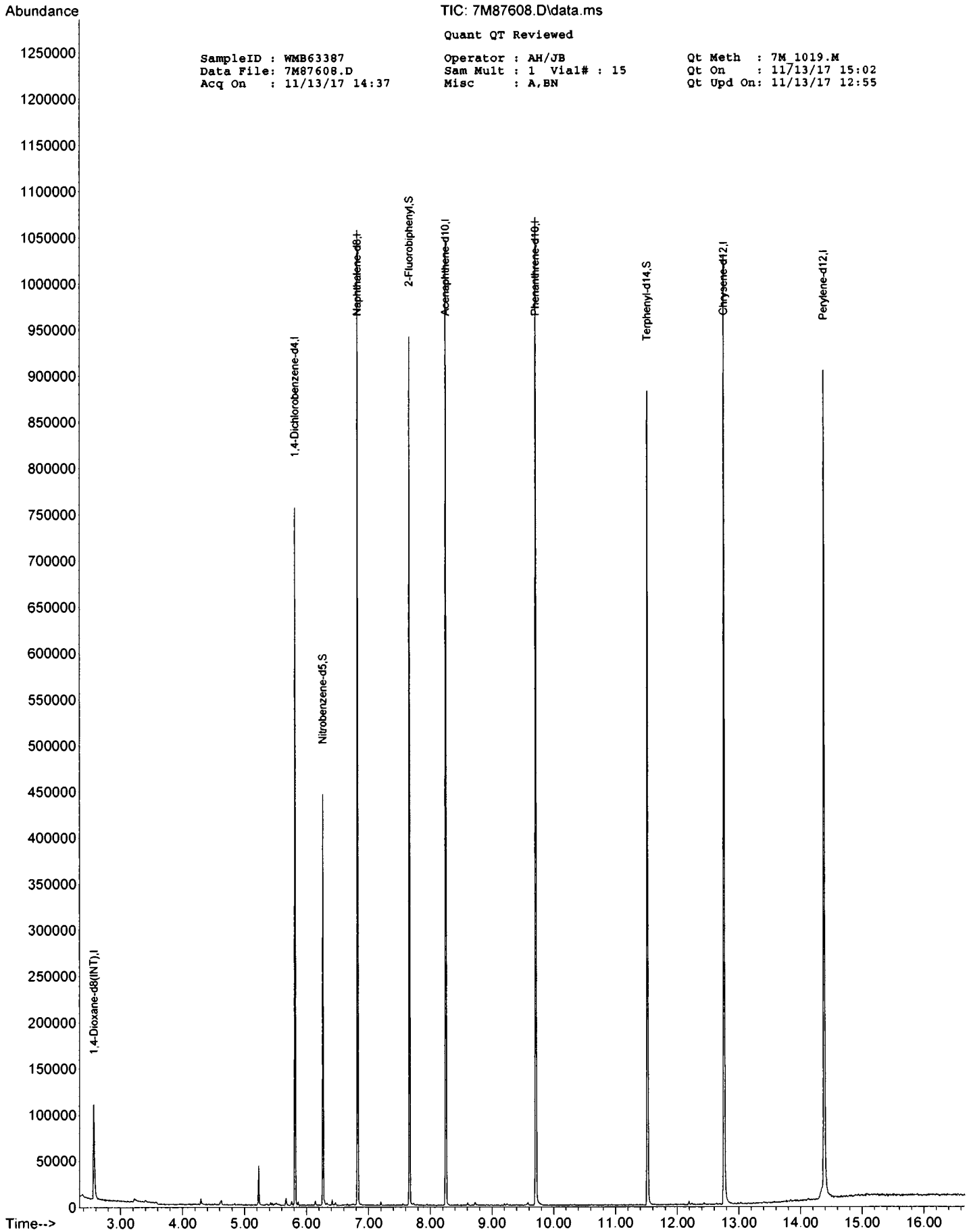
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
7) 1,4-Dioxane-d8(INT)	2.567	96	54505	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	98063	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	387681	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	227680	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	403326	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	395760	40.00	ng	-0.01
103) Perylene-d12	14.384	264	352089	40.00	ng	-0.02
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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.264	128	55379	35.46	ng	0.00
Spiked Amount 50.000			Recovery =	70.92%		
55) 2-Fluorobiphenyl	7.664	172	269465	38.06	ng	-0.01
Spiked Amount 50.000			Recovery =	76.12%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	284992	46.57	ng	0.00
Spiked Amount 50.000			Recovery =	93.14%		

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87608.D\data.ms
Quant QT Reviewed
SampleID : WMB63387
Data File: 7M87608.D
Acq On : 11/13/17 14:37
Operator : AH/JB
Sam Mult : 1 Vial# : 15
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/13/17 15:02
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB63402
Client Id:
Data File: 7M87639.D
Analysis Date: 11/14/17 16:09
Date Rec/Extracted: NA-11/14/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671 *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 usea
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Quantitation Report (QT Reviewed)

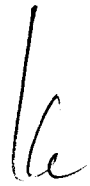
7111017 0292

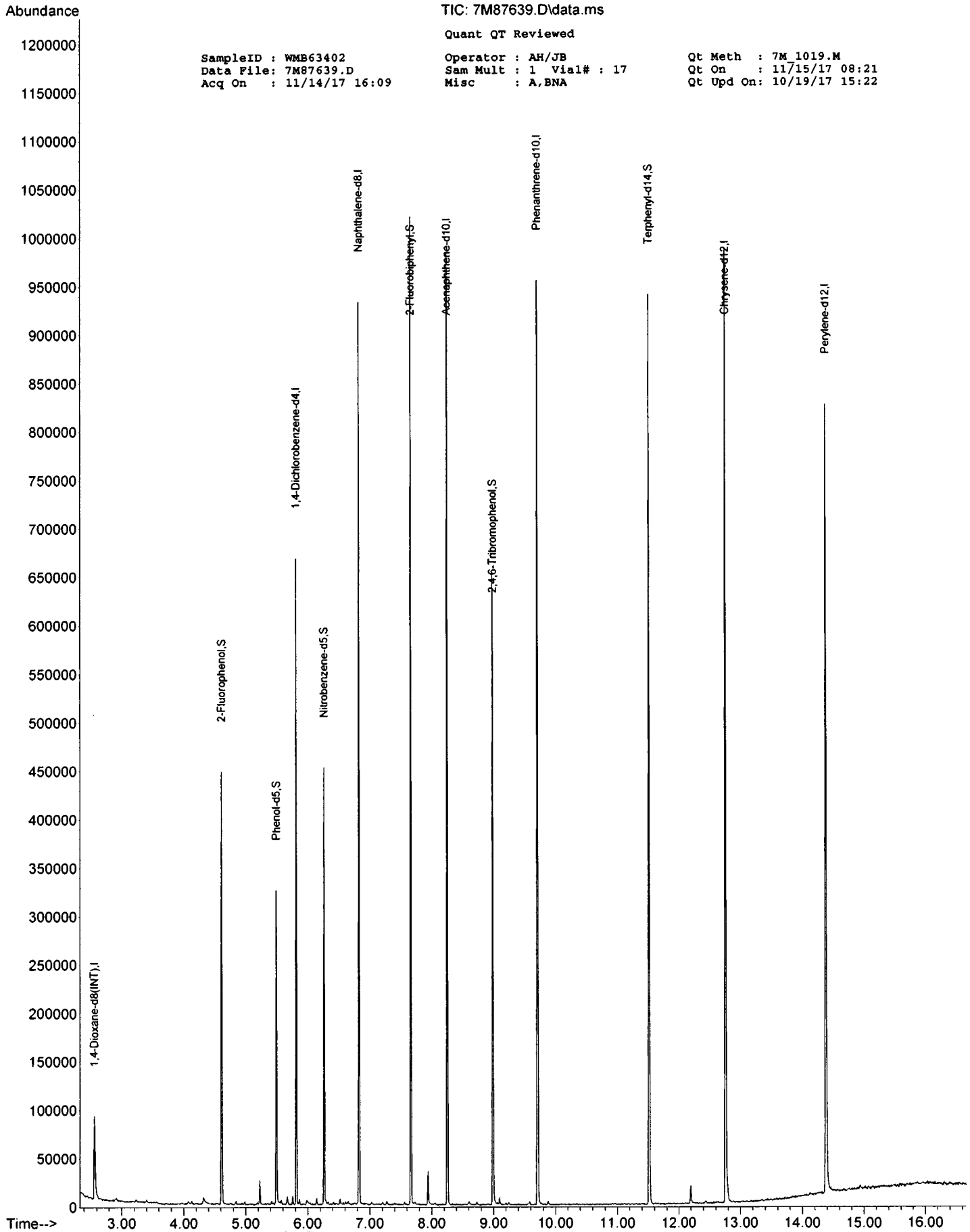
SampleID : WMB63402 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87639.D Sam Mult : 1 Vial# : 17 Qt On : 11/15/17 08:21
Acq On : 11/14/17 16:09 Misc : A,BNA Qt Upd On: 10/19/17 15:22

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\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)	2.562	96	45857	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	85399	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	351354	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	214997	40.00	ng	-0.01
77) Phenanthrene-d10	9.710	188	383411	40.00	ng	-0.01
91) Chrysene-d12	12.760	240	381701	40.00	ng	-0.01
103) Perylene-d12	14.384	264	327915	40.00	ng	-0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.613	112	123575	44.52	ng	0.00
Spiked Amount 100.000			Recovery =	44.52%		
16) Phenol-d5	5.495	99	106770	30.06	ng	0.00
Spiked Amount 100.000			Recovery =	30.06%		
32) Nitrobenzene-d5	6.264	128	56868	40.17	ng	0.00
Spiked Amount 50.000			Recovery =	80.34%		
55) 2-Fluorobiphenyl	7.663	172	274396	41.04	ng	-0.01
Spiked Amount 50.000			Recovery =	82.08%		
80) 2,4,6-Tribromophenol	8.994	330	66247	80.99	ng	0.00
Spiked Amount 100.000			Recovery =	80.99%		
94) Terphenyl-d14	11.515	244	283471	48.03	ng	0.00
Spiked Amount 50.000			Recovery =	96.06%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed




Abundance
TIC: 7M87639.D\data.ms
Quant QT Reviewed
SampleID : WMB63402
Data File: 7M87639.D
Acq On : 11/14/17 16:09
Operator : AH/JB
Sam Mult : 1 Vial# : 17
Misc : A,BNA
Qt Meth : 7M_1019.M
Qt On : 11/15/17 08:21
Qt Upd On: 10/19/17 15:22
1,4-Dioxane-d8(INT),I
2-Fluorophenol,S
Phenol-d5,S
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
2,4,6-Tribromophenol,S
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB63412
Client Id:
Data File: 10M66053.D
Analysis Date: 11/15/17 16:23
Date Rec/Extracted: NA-11/15/17
Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270D
Matrix: Aqueous
Initial Vol: 1000ml
Final Vol: 0.5ml
Dilution: 1
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
123-91-1	1,4-Dioxane	0.25	U				

Worksheet #: 444671

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

Quantitation Report (QT Reviewed)

7111017 0295

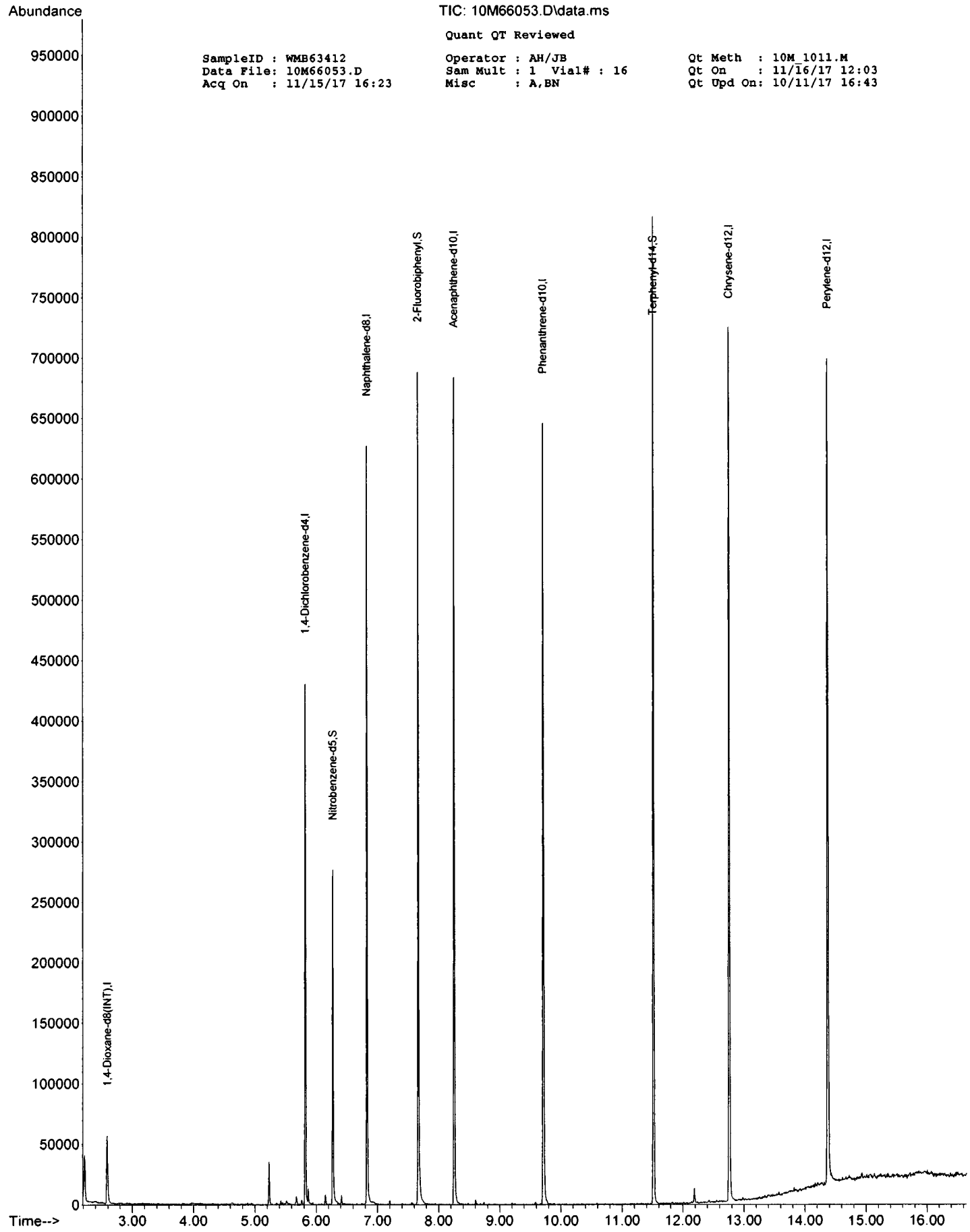
SampleID : WMB63412 Operator : AH/JB Qt Meth : 10M_1011.M
Data File: 10M66053.D Sam Mult : 1 Vial# : 16 Qt On : 11/16/17 12:03
Acq On : 11/15/17 16:23 Misc : A,BN Qt Upd On: 10/11/17 16:43

Data Path : G:\GcMsData\2017\GCMS_10\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.588	96	29139	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.824	152	66640	40.00	ng	-0.01
31) Naphthalene-d8	6.829	136	266975	40.00	ng	-0.01
50) Acenaphthene-d10	8.258	164	165397	40.00	ng	0.00
77) Phenanthrene-d10	9.718	188	286643	40.00	ng	0.00
91) Chrysene-d12	12.761	240	321672	40.00	ng	0.00
103) Perylene-d12	14.376	264	309863	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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.273	128	44229	42.57	ng	0.00
Spiked Amount 50.000			Recovery =	85.14%		
55) 2-Fluorobiphenyl	7.664	172	228687	44.18	ng	-0.01
Spiked Amount 50.000			Recovery =	88.36%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	274414	55.80	ng	0.00
Spiked Amount 50.000			Recovery =	111.60%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

16


Abundance
TIC: 10M66053.D\data.ms
Quant QT Reviewed
SampleID : WMB63412
Data File: 10M66053.D
Acq On : 11/15/17 16:23
Operator : AH/JB
Sam Mult : 1 Vial# : 16
Misc : A,BN
Qt Meth : 10M_1011.M
Qt On : 11/16/17 12:03
Qt Upd On: 10/11/17 16:43
1,4-Dioxane-d8(INT),I
1,4-Dichlorobenzene-d4,I
Nitrobenzene-d5,S
Naphthalene-d8,I
2-Fluorobiphenyl,S
Acenaphthene-d10,I
Phenanthrene-d10,I
Terphenyl-d14,S
Chrysene-d12,I
Perylene-d12,I
Time-->

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63387

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M101515.D	WMB63387(MS)	11/14/2017 12:10:00 P
Non Spike(If applicable):		
Inst Blank(If applicable):		

Method: 8270D | Matrix: Aqueous | QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	45.3914	0	100	45	20	160
Pyridine	1	60.8003	0	100	61	5	150
N-Nitrosodimethylamine	1	53.2539	0	100	53	50	150
Benzaldehyde	1	175.6163	0	100	176*	20	150
Aniline	1	104.6294	0	100	105	20	150
Pentachloroethane	1	2.5545	0	100	2.6*	50	130
bis(2-Chloroethyl)ether	1	91.2129	0	100	91	50	130
N-Decane	1	85.3361	0	100	85	40	130
1,3-Dichlorobenzene	1	87.9789	0	100	88	50	130
1,4-Dichlorobenzene	1	88.856	0	100	89	50	130
1,2-Dichlorobenzene	1	88.9518	0	100	89	50	130
Benzyl alcohol	1	75.0777	0	100	75	70	130
bis(2-chloroisopropyl)ether	1	78.6417	0	100	79	40	130
Acetophenone	1	88.5284	0	100	89	50	130
Hexachloroethane	1	88.009	0	100	88	50	130
N-Nitroso-di-n-propylamine	1	88.1576	0	100	88	50	130
Nitrobenzene	1	97.4946	0	100	97	70	130
Isophorone	1	91.4614	0	100	91	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	94.1323	0	100	94	70	130
1,2,4-Trichlorobenzene	1	93.4286	0	100	93	50	130
Naphthalene	1	95.215	0	100	95	70	130
4-Chloroaniline	1	142.9322	0	100	143	50	150
Hexachlorobutadiene	1	89.2411	0	100	89	70	130
Caprolactam	1	25.1402	0	100	25	20	130
2-Methylnaphthalene	1	95.8005	0	100	96	70	130
1-Methylnaphthalene	1	91.9183	0	100	92	70	130
1,1'-Biphenyl	1	94.6228	0	100	95	70	130
1,2,4,5-Tetrachlorobenzene	1	85.6862	0	100	86	70	130
Hexachlorocyclopentadiene	1	77.1238	0	100	77	20	130
2-Chloronaphthalene	1	94.2483	0	100	94	70	130
1,4-Dimethylnaphthalene	1	93.0564	0	100	93	70	130
Diphenyl Ether	1	92.0819	0	100	92	70	130
2-Nitroaniline	1	104.1251	0	100	104	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	101.6799	0	100	102	70	130
Dimethylphthalate	1	63.2014	0	100	63*	70	130
2,6-Dinitrotoluene	1	97.0512	0	100	97	70	130
Acenaphthene	1	96.1165	0	100	96	70	130
3-Nitroaniline	1	123.3717	0	100	123	50	150
Dibenzofuran	1	104.8271	0	100	105	70	130
2,4-Dinitrotoluene	1	99.5177	0	100	100	40	130
Fluorene	1	98.7482	0	100	99	70	130
4-Chlorophenyl-phenylether	1	95.1112	0	100	95	70	130
Diethylphthalate	1	87.6325	0	100	88	50	130
4-Nitroaniline	1	112.3265	0	100	112	50	150
Atrazine	1	114.7988	0	100	115	50	130
n-Nitrosodiphenylamine	1	78.4989	0	100	78	50	130
1,2-Diphenylhydrazine	1	96.3925	0	100	96	70	130
4-Bromophenyl-phenylether	1	95.216	0	100	95	70	130
Hexachlorobenzene	1	96.2474	0	100	96	70	130
N-Octadecane	1	98.3073	0	100	98	70	130
Phenanthrene	1	95.2033	0	100	95	70	130
Anthracene	1	95.7685	0	100	96	70	130
Carbazole	1	102.8255	0	100	103	70	130
Di-n-butylphthalate	1	104.659	0	100	105	70	130
Fluoranthene	1	100.7849	0	100	101	70	130
Pyrene	1	97.4358	0	100	97	70	130
Benzidine	1	54.3718	0	100	54	1	130
Butylbenzylphthalate	1	96.6385	0	100	97	50	130
3,3'-Dichlorobenzidine	1	130.7583	0	100	131	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	101.1628	0	100	101	70	130
Chrysene	1	97.3255	0	100	97	50	130
bis(2-Ethylhexyl)phthalate	1	101.5796	0	100	102	70	130
Di-n-octylphthalate	1	105.0388	0	100	105	70	130
Benzo[b]fluoranthene	1	100.7501	0	100	101	70	130
Benzo[k]fluoranthene	1	102.8208	0	100	103	70	130
Benzo[a]pyrene	1	97.6445	0	100	98	70	130
Indeno[1,2,3-cd]pyrene	1	111.6546	0	100	112	70	130
Dibenzo[a,h]anthracene	1	109.9078	0	100	110	70	130
Benzo[g,h,i]perylene	1	107.6887	0	100	108	70	130

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

SampleID : WMB63387(MS) Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101515.D Sam Mult : 1 Vial# : 9 Qt On : 11/14/17 12:42
Acq On : 11/14/17 12:10 Misc : A,BN Qt Upd On: 10/20/17 15:15

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\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)	2.428	96	32191	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	67560	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	271750	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	173010	40.00	ng	0.00
77) Phenanthrene-d10	9.597	188	324944	40.00	ng	0.00
91) Chrysene-d12	12.642	240	383084	40.00	ng	0.00
103) Perylene-d12	14.245	264	359784	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	5.591	99	10158	3.66	ng	0.19
Spiked Amount 100.000			Recovery =	3.66%		
32) Nitrobenzene-d5	6.168	128	55817	54.08	ng	0.00
Spiked Amount 50.000			Recovery =	108.16%		
55) 2-Fluorobiphenyl	7.562	172	263965	48.36	ng	0.00
Spiked Amount 50.000			Recovery =	96.72%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.398	244	348570	56.62	ng	0.00
Spiked Amount 50.000			Recovery =	113.24%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.465	88	38091	45.3914	ng	94
9) Pyridine	2.898	79	151023	60.8003	ng	74
10) N-Nitrosodimethylamine	2.823	74	72185	53.2539	ng	75
12) Benzaldehyde	5.329	77	180656	175.6163	ng	79
13) Aniline	5.430	93	343101	104.6294	ng	43
14) Pentachloroethane	5.473	117	1858	2.5545	ng	83
15) bis(2-Chloroethyl)ether	5.489	93	213027	91.2129	ng	81
19) N-Decane	5.585	57	202596	85.3361	ng	89
20) 1,3-Dichlorobenzene	5.665	146	217208	87.9789	ng	97
22) 1,4-Dichlorobenzene	5.730	146	224305	88.8560	ng	97
23) 1,2-Dichlorobenzene	5.852	146	216164	88.9518	ng	98
24) Benzyl alcohol	5.831	108	116524	75.0777	ng	73
25) bis(2-chloroisopropyl)...	5.943	45	261729	78.6417	ng	95
27) Acetophenone	6.045	105	298584	88.5284	ng	60
28) Hexachloroethane	6.136	117	83852	88.0090	ng	90
29) N-Nitroso-di-n-propyla...	6.050	70	150596	88.1576	ng	68
33) Nitrobenzene	6.184	77	228947	97.4946	ng	78
34) Isophorone	6.371	82	400899	91.4614	ng	86
38) bis(2-Chloroethoxy)met...	6.536	93	258671	94.1323	ng	98
40) 1,2,4-Trichlorobenzene	6.686	180	201419	93.4286	ng	97
41) Naphthalene	6.745	128	642941	95.2150	ng	99
42) 4-Chloroaniline	6.782	127	301282m	142.9322	ng	
43) Hexachlorobutadiene	6.841	225	112910	89.2411	ng	98
44) Caprolactam	7.028	113	19304	25.1402	ng	68
46) 2-Methylnaphthalene	7.279	142	455383	95.8005	ng	100
47) 1-Methylnaphthalene	7.359	142	423720	91.9183	ng	93
49) 1,1'-Biphenyl	7.647	154	537499	94.6228	ng	96
51) 1,2,4,5-Tetrachloroben...	7.412	216	211593	85.6862	ng	98
52) Hexachlorocyclopentadiene	7.402	237	98146	77.1238	ng	100
56) 2-Chloronaphthalene	7.669	162	427366	94.2483	ng	93
57) 1,4-Dimethylnaphthalene	7.952	156	330134	93.0564	ng	88
59) Diphenyl Ether	7.733	170	315341	92.0819	ng	79
60) 2-Nitroaniline	7.749	65	165524	104.1251	ng	57
62) Acenaphthylene	8.027	152	702821	101.6799	ng	99
63) Dimethylphthalate	7.893	163	340409	63.2014	ng	98
64) 2,6-Dinitrotoluene	7.952	165	112411	97.0512	ng	63
65) Acenaphthene	8.176	153	449611	96.1165	ng	97
66) 3-Nitroaniline	8.102	138	146520	123.3717	ng	76
68) Dibenzofuran	8.331	168	668553	104.8271	ng	88
69) 2,4-Dinitrotoluene	8.305	165	163308	99.5177	ng	62
72) Fluorene	8.652	166	529376	98.7482	ng	100
73) 4-Chlorophenyl-phenyle...	8.641	204	255389	95.1112	ng	84
74) Diethylphthalate	8.524	149	466099	87.6325	ng	97
75) 4-Nitroaniline	8.662	138	165930	112.3265	ng	74
76) Atrazine	9.288	200	173571	114.7988	ng	97
79) n-Nitrosodiphenylamine	8.753	169	377725	78.4989	ng	99
81) 1,2-Diphenylhydrazine	8.796	77	529032	96.3925	ng	84
82) 4-Bromophenyl-phenylether	9.127	248	153720	95.2160	ng	84
83) Hexachlorobenzene	9.197	284	164954	96.2474	ng	70
84) N-Octadecane	9.475	57	326206	98.3073	ng	80
86) Phenanthrene	9.624	178	824884	95.2033	ng	99

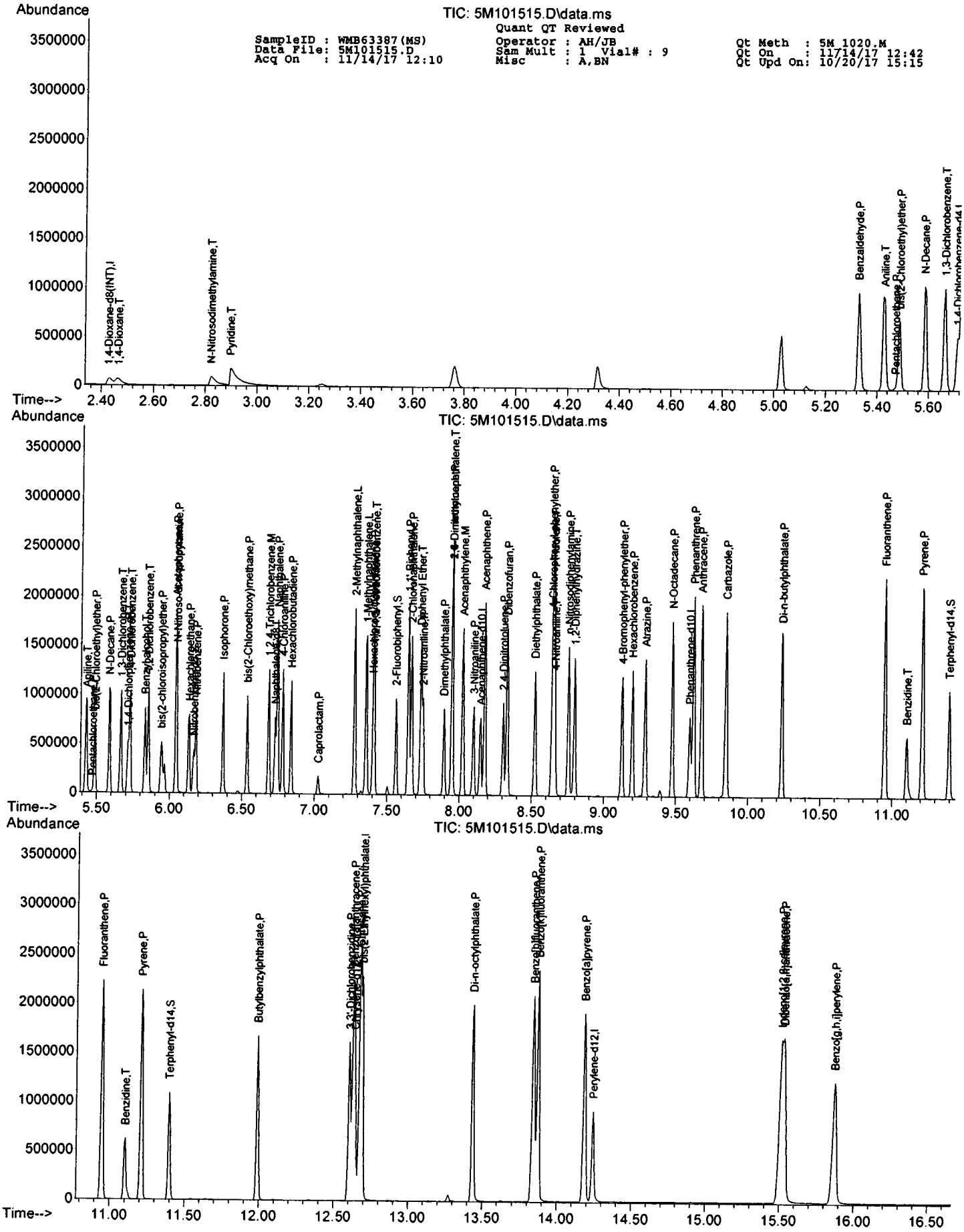
Quantitation Report (QT Reviewed)

SampleID : WMB63387(MS) Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101515.D Sam Mult : 1 Vial# : 9 Qt On : 11/14/17 12:42
Acq On : 11/14/17 12:10 Misc : A,BN Qt Upd On: 10/20/17 15:15

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87)	Anthracene	9.678	178	839812	95.7685	ng	100
88)	Carbazole	9.848	167	828069	102.8255	ng	98
89)	Di-n-butylphthalate	10.238	149	949877	104.6590	ng	97
90)	Fluoranthene	10.949	202	981632	100.7849	ng	94
92)	Pyrene	11.211	202	997214	97.4358	ng	92
93)	Benzidine	11.104	184	265333	54.3718	ng	86
97)	Butylbenzylphthalate	11.991	149	426126	96.6385	ng	74
99)	3,3'-Dichlorobenzidine	12.605	252	363800	130.7583	ng	96
100)	Benzo[a]anthracene	12.632	228	1017119	101.1628	ng	99
101)	Chrysene	12.675	228	953695	97.3255	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.691	149	635810	101.5796	ng	96
104)	Di-n-octylphthalate	13.438	149	1103464	105.0388	ng	99
105)	Benzo[b]fluoranthene	13.844	252	986626	100.7501	ng	93
106)	Benzo[k]fluoranthene	13.877	252	979379	102.8208	ng	94
107)	Benzo[a]pyrene	14.186	252	903967	97.6445	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.517	276	1072111	111.6546	ng	84
109)	Dibenzo[a,h]anthracene	15.533	278	905440	109.9078	ng	90
110)	Benzo[g,h,i]perylene	15.874	276	858668	107.6887	ng	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101515.D\data.ms
Quant QT Reviewed
SampleID : WMB63387(MS)
Data File: 5M101515.D
Acq On : 11/14/17 12:10
Operator : AH/JB
Sam Mult : 1 Vial# : 9
Misc : A,BN
Qt Meth : 5M_1020.M
Qt On : 11/14/17 12:42
Qt Upd On: 10/20/17 15:15
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
Benzaldehyde,P
Aniline,T
Pentachloroethane,P
bis(2-Chloroethyl)ether,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63402

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M101521.D	WMB63402(MS)	11/14/2017 4:03:00 PM
Non Spike(If applicable):		
Inst Blank(If applicable):		

Method: 8270D | Matrix: Aqueous | QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	49.9529	0	100	50	20	160
Pyridine	1	19.0685	0	100	19	5	150
N-Nitrosodimethylamine	1	58.6835	0	100	59	50	150
Benzaldehyde	1	153.3343	0	100	153*	20	150
Aniline	1	58.7328	0	100	59	20	150
Pentachloroethane	1	73.3319	0	100	73	50	130
bis(2-Chloroethyl)ether	1	68.7274	0	100	69	50	130
N-Decane	1	72.9829	0	100	73	40	130
1,3-Dichlorobenzene	1	67.5967	0	100	68	50	130
1,4-Dichlorobenzene	1	72.62	0	100	73	50	130
1,2-Dichlorobenzene	1	71.8741	0	100	72	50	130
Benzyl alcohol	1	79.4509	0	100	79	70	130
bis(2-chloroisopropyl)ether	1	66.8501	0	100	67	40	130
Acetophenone	1	80.5303	0	100	81	50	130
Hexachloroethane	1	70.3293	0	100	70	50	130
N-Nitroso-di-n-propylamine	1	73.5566	0	100	74	50	130
Nitrobenzene	1	84.4794	0	100	84	70	130
Isophorone	1	80.2206	0	100	80	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	80.8099	0	100	81	70	130
1,2,4-Trichlorobenzene	1	77.4962	0	100	77	50	130
Naphthalene	1	79.3445	0	100	79	70	130
4-Chloroaniline	1	104.4723	0	100	104	50	150
Hexachlorobutadiene	1	74.5177	0	100	75	70	130
Caprolactam	1	44.4522	0	100	44	20	130
2-Methylnaphthalene	1	85.4268	0	100	85	70	130
1-Methylnaphthalene	1	83.5029	0	100	84	70	130
1,1'-Biphenyl	1	89.2628	0	100	89	70	130
1,2,4,5-Tetrachlorobenzene	1	79.3569	0	100	79	70	130
Hexachlorocyclopentadiene	1	71.1393	0	100	71	20	130
2-Chloronaphthalene	1	83.3392	0	100	83	70	130
1,4-Dimethylnaphthalene	1	86.5972	0	100	87	70	130
Diphenyl Ether	1	85.1721	0	100	85	70	130
2-Nitroaniline	1	94.5187	0	100	95	50	150
Coumarin	1	97.8607	0	100	98	70	130
Acenaphthylene	1	87.3458	0	100	87	70	130
Dimethylphthalate	1	80.5363	0	100	81	70	130
2,6-Dinitrotoluene	1	84.2459	0	100	84	70	130
Acenaphthene	1	85.7503	0	100	86	70	130
3-Nitroaniline	1	107.5075	0	100	108	50	150
Dibenzofuran	1	93.7978	0	100	94	70	130
2,4-Dinitrotoluene	1	86.2501	0	100	86	40	130
Fluorene	1	86.0013	0	100	86	70	130
4-Chlorophenyl-phenylether	1	83.9435	0	100	84	70	130
Diethylphthalate	1	87.7048	0	100	88	50	130
4-Nitroaniline	1	97.1829	0	100	97	50	150
Atrazine	1	100.5962	0	100	101	50	130
n-Nitrosodiphenylamine	1	71.2806	0	100	71	50	130
1,2-Diphenylhydrazine	1	92.7447	0	100	93	70	130
4-Bromophenyl-phenylether	1	85.9169	0	100	86	70	130
Hexachlorobenzene	1	85.082	0	100	85	70	130
N-Octadecane	1	90.7742	0	100	91	70	130
Phenanthrene	1	83.8456	0	100	84	70	130
Anthracene	1	83.0623	0	100	83	70	130
Carbazole	1	92.2082	0	100	92	70	130
Di-n-butylphthalate	1	91.7287	0	100	92	70	130
Fluoranthene	1	87.3598	0	100	87	70	130
Pyrene	1	82.1346	0	100	82	70	130
Benzidine	1	12.5592	0	100	13	1	130
Butylbenzylphthalate	1	84.5783	0	100	85	50	130
3,3'-Dichlorobenzidine	1	86.0023	0	100	86	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63402

Benzo[a]anthracene	1	86.4387	0	100	86	70	130
Chrysene	1	85.9827	0	100	86	50	130
bis(2-Ethylhexyl)phthalate	1	88.7645	0	100	89	70	130
Di-n-octylphthalate	1	89.0383	0	100	89	70	130
Benzo[b]fluoranthene	1	85.0336	0	100	85	70	130
Benzo[k]fluoranthene	1	84.0297	0	100	84	70	130
Benzo[a]pyrene	1	81.4479	0	100	81	70	130
Indeno[1,2,3-cd]pyrene	1	96.7298	0	100	97	70	130
Dibenzo[a,h]anthracene	1	93.8976	0	100	94	70	130
Benzo[g,h,i]perylene	1	93.2974	0	100	93	70	130

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

SampleID : WMB63402(MS) Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101521.D Sam Mult : 1 Vial# : 15 Qt On : 11/15/17 08:20
Acq On : 11/14/17 16:03 Misc : A,BNA Qt Upd On: 10/20/17 15:15

Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\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)	2.434	96	29228	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.714	152	57459	40.00	ng	0.00
31) Naphthalene-d8	6.729	136	227963	40.00	ng	0.00
50) Acenaphthene-d10	8.150	164	143535	40.00	ng	0.00
77) Phenanthrene-d10	9.598	188	268148	40.00	ng	0.00
91) Chrysene-d12	12.643	240	334234	40.00	ng	0.00
103) Perylene-d12	14.245	264	320891	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.506	112	112943	56.90	ng	0.00
Spiked Amount 100.000			Recovery = 56.90%			
16) Phenol-d5	5.404	99	106319	42.25	ng	0.00
Spiked Amount 100.000			Recovery = 42.25%			
32) Nitrobenzene-d5	6.168	128	46236	53.40	ng	0.00
Spiked Amount 50.000			Recovery = 106.80%			
55) 2-Fluorobiphenyl	7.562	172	235734	52.06	ng	0.00
Spiked Amount 50.000			Recovery = 104.12%			
80) 2,4,6-Tribromophenol	8.887	330	70391	106.43	ng	0.00
Spiked Amount 100.000			Recovery = 106.43%			
94) Terphenyl-d14	11.398	244	297242	55.34	ng	0.00
Spiked Amount 50.000			Recovery = 110.68%			
Target Compounds						Qvalue
8) 1,4-Dioxane	2.466	88	38140	49.9529	ng	94
9) Pyridine	2.936	79	43005	19.0685	ng	72
10) N-Nitrosodimethylamine	2.829	74	72223	58.6835	ng	76
12) Benzaldehyde	5.329	77	143216	153.3343	ng	82
13) Aniline	5.431	93	160609	58.7328	ng	48
14) Pentachloroethane	5.473	117	48429	73.3319	ng	79
15) bis(2-Chloroethyl)ether	5.489	93	145738	68.7274	ng	83
17) Phenol	5.415	94	108907	37.5198	ng	87
18) 2-Chlorophenol	5.532	128	159701	73.5422	ng	83
19) N-Decane	5.591	57	157320	72.9829	ng	86
20) 1,3-Dichlorobenzene	5.666	146	151526	67.5967	ng	98
22) 1,4-Dichlorobenzene	5.730	146	155911	72.6200	ng	99
23) 1,2-Dichlorobenzene	5.853	146	148549	71.8741	ng	97
24) Benzyl alcohol	5.831	108	104875	79.4509	ng	74
25) bis(2-chloroisopropyl)...	5.944	45	189221	66.8501	ng	94
26) 2-Methylphenol	5.927	108	136274	72.0308	ng	99
27) Acetophenone	6.045	105	231000	80.5303	ng	68
28) Hexachloroethane	6.136	117	56989	70.3293	ng	89
29) N-Nitroso-di-n-propyla...	6.050	70	106867	73.5566	ng	69
30) 3&4-Methylphenol	6.050	108	134235	69.5730	ng	84
33) Nitrobenzene	6.184	77	166418	84.4794	ng	78
34) Isophorone	6.371	82	294970	80.2206	ng	90
35) 2-Nitrophenol	6.435	139	90738	91.7879	ng	85
36) 2,4-Dimethylphenol	6.467	107	156877	79.0571	ng	95
38) bis(2-Chloroethoxy)met...	6.536	93	186281	80.8099	ng	98
39) 2,4-Dichlorophenol	6.622	162	143176	89.4582	ng	88
40) 1,2,4-Trichlorobenzene	6.686	180	140151	77.4962	ng	96
41) Naphthalene	6.745	128	450155	79.3445	ng	99
42) 4-Chloroaniline	6.782	127	203141m	104.4723	ng	
43) Hexachlorobutadiene	6.841	225	79090	74.5177	ng	95
44) Caprolactam	7.044	113	28633	44.4522	ng	70
45) 4-Chloro-3-methylphenol	7.151	107	157568	91.7179	ng	83
46) 2-Methylnaphthalene	7.279	142	340642	85.4268	ng	99
47) 1-Methylnaphthalene	7.359	142	322904	83.5029	ng	92
48) Methylnaphthalenes (To...	7.279	142	660030m	168.4250	ng	
49) 1,1'-Biphenyl	7.648	154	425351	89.2628	ng	96
51) 1,2,4,5-Tetrachloroben...	7.413	216	162578	79.3569	ng	98
52) Hexachlorocyclopentadiene	7.407	237	75107	71.1393	ng	97
53) 2,4,6-Trichlorophenol	7.498	196	106633	89.1202	ng	99
54) 2,4,5-Trichlorophenol	7.530	196	121556	93.2515	ng	98
56) 2-Chloronaphthalene	7.669	162	313518	83.3392	ng	93
57) 1,4-Dimethylnaphthalene	7.952	156	254879	86.5972	ng	88
58) Dimethylnaphthalenes (...	7.952	156	254879	86.5972	ng	88
59) Diphenyl Ether	7.733	170	241986	85.1721	ng	80
60) 2-Nitroaniline	7.749	65	124655	94.5187	ng	56
61) Coumarin	7.931	146	147500	97.8607	ng	80
62) Acenaphthylene	8.027	152	500885	87.3458	ng	99
63) Dimethylphthalate	7.899	163	359876	80.5363	ng	99
64) 2,6-Dinitrotoluene	7.952	165	80955	84.2459	ng	64
65) Acenaphthene	8.177	153	332783	85.7503	ng	96
66) 3-Nitroaniline	8.102	138	105927	107.5075	ng	74

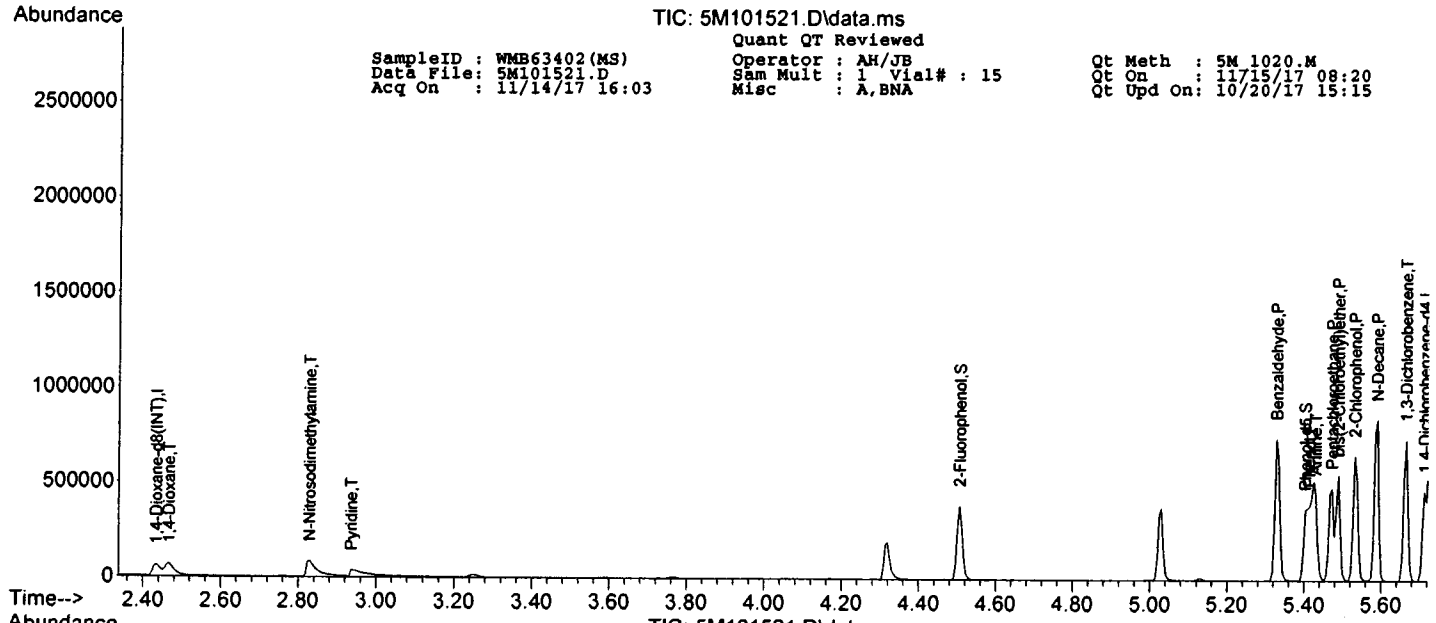
Quantitation Report (QT Reviewed)

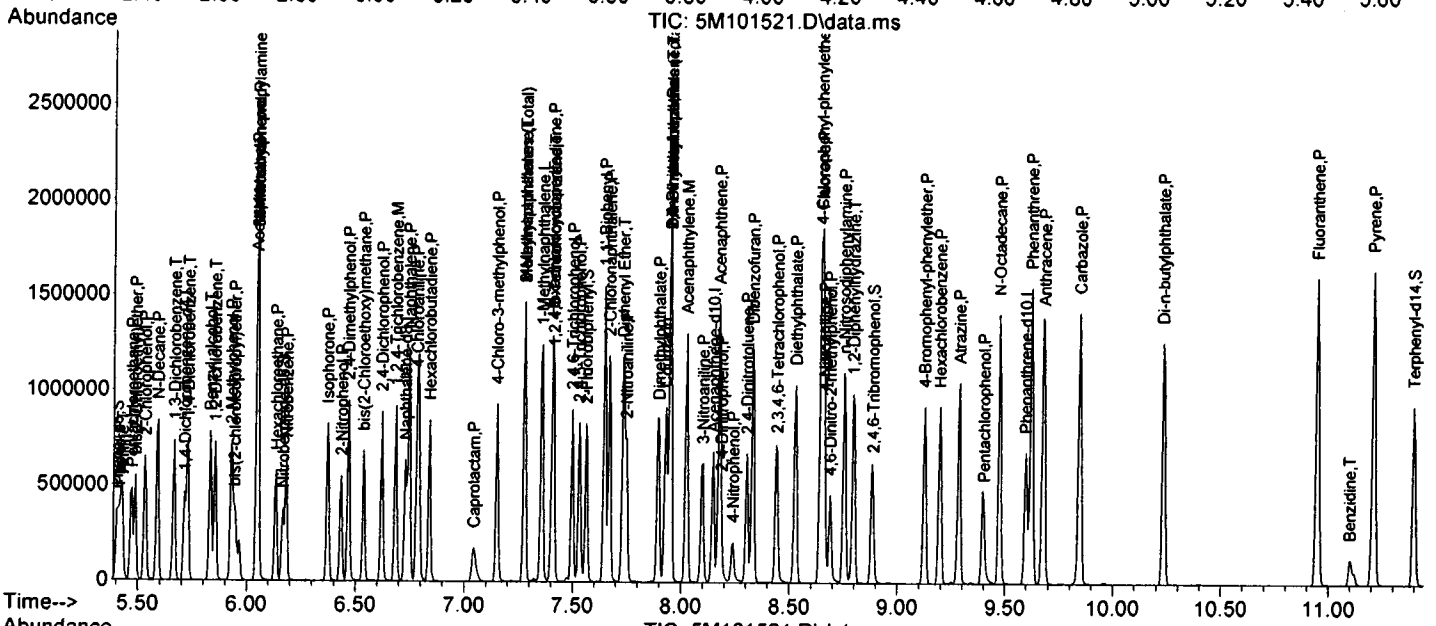
SampleID : WMB63402(MS) Operator : AH/JB Qt Meth : 5M_1020.M
Data File: 5M101521.D Sam Mult : 1 Vial# : 15 Qt On : 11/15/17 08:20
Acq On : 11/14/17 16:03 Misc : A,BNA Qt Upd On: 10/20/17 15:15

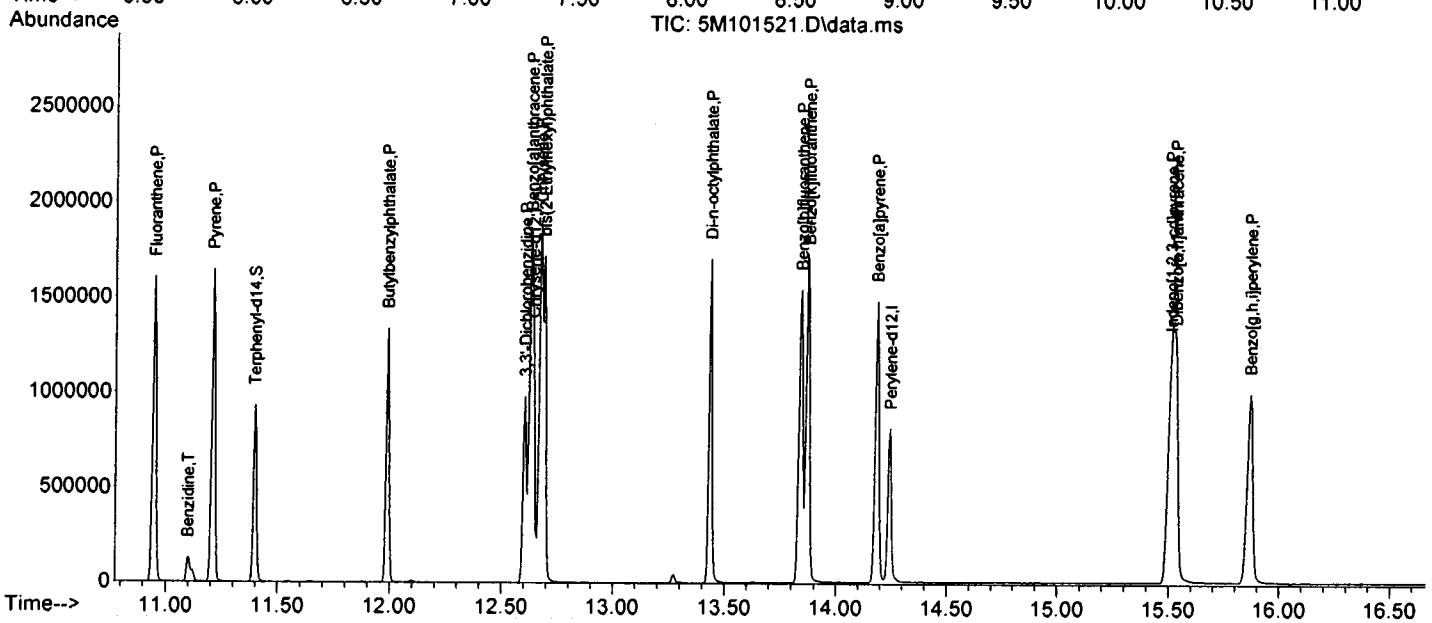
Data Path : G:\GcMsData\2017\GCMS_5\Data\11-14-17\
Qt Path : G:\GCMSDATA\2017\GCMS_5\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	2,4-Dinitrophenol	8.187	184	21406	39.3687	ng	58
68)	Dibenzofuran	8.331	168	498432	93.7978	ng	88
69)	2,4-Dinitrotoluene	8.305	165	117423	86.2501	ng	63
70)	4-Nitrophenol	8.241	65	33689	42.5446	ng	87
71)	2,3,4,6-Tetrachlorophenol	8.444	232	94886	83.4523	ng	84
72)	Fluorene	8.652	166	382496	86.0013	ng	99
73)	4-Chlorophenyl-phenyle...	8.647	204	187001	83.9435	ng	80
74)	Diethylphthalate	8.529	149	387011	87.7048	ng	97
75)	4-Nitroaniline	8.663	138	119102	97.1829	ng	76
76)	Atrazine	9.288	200	126185	100.5962	ng	96
78)	4,6-Dinitro-2-methylph...	8.689	198	70560	79.5294	ng	62
79)	n-Nitrosodiphenylamine	8.754	169	283041	71.2806	ng	99
81)	1,2-Diphenylhydrazine	8.796	77	420043	92.7447	ng	87
82)	4-Bromophenyl-phenylether	9.127	248	114463	85.9169	ng	82
83)	Hexachlorobenzene	9.197	284	120331	85.0820	ng	69
84)	N-Octadecane	9.475	57	248562	90.7742	ng	82
85)	Pentachlorophenol	9.400	266	60911	69.0382	ng	98
86)	Phenanthrene	9.624	178	599497	83.8456	ng	100
87)	Anthracene	9.683	178	601076	83.0623	ng	99
88)	Carbazole	9.849	167	612775	92.2082	ng	98
89)	Di-n-butylphthalate	10.233	149	687008	91.7287	ng	98
90)	Fluoranthene	10.949	202	702152	87.3598	ng	93
92)	Pyrene	11.211	202	733420	82.1346	ng	90
93)	Benzidine	11.099	184	58640	12.5592	ng	89
97)	Butylbenzylphthalate	11.991	149	324419	84.5783	ng	73
99)	3,3'-Dichlorobenzidine	12.605	252	221230	86.0023	ng	95
100)	Benzo[a]anthracene	12.632	228	758256	86.4387	ng	99
101)	Chrysene	12.675	228	735107	85.9827	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.691	149	486906	88.7645	ng	94
104)	Di-n-octylphthalate	13.439	149	834187	89.0383	ng	99
105)	Benzo[b]fluoranthene	13.845	252	742700	85.0336	ng	93
106)	Benzo[k]fluoranthene	13.877	252	713869	84.0297	ng	92
107)	Benzo[a]pyrene	14.187	252	672512	81.4479	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.511	276	828398	96.7298	ng	85
109)	Dibenzo[a,h]anthracene	15.533	278	689924	93.8976	ng	89
110)	Benzo[g,h,i]perylene	15.869	276	663499	93.2974	ng	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 5M101521.D\data.ms
Quant QT Reviewed
SampleID : WMB63402(MS)
Data File: 5M101521.D
Acq On : 11/14/17 16:03
Operator : AH/JB
Sam Mult : 1 Vial# : 15
Misc : A,BNA
Qt Meth : 5M_1020.M
Qt On : 11/15/17 08:20
Qt Upd On: 10/20/17 15:15
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
2-Fluorophenol,S
Benzaldehyde,P
2-Chlorophenol,P
N-Decane,P
1,3-Dichlorobenzene,T
Time-->


Abundance
TIC: 5M101521.D\data.ms
Caprolactam,P
4-Chloro-3-methylphenol,P
Isophorone,P
2-Nitrophenol,P
2,4-Dichlorophenol,P
Hexachlorobutadiene,P
Acenaphthylene,M
3-Nitroaniline,P
4-Nitrophenol,P
2,3,4,6-Tetrachlorophenol,P
Diethylphthalate,P
Dibenzofuran,P
2,4-Dinitrotoluene,P
2,6-Dinitrotoluene,P
4-Chlorophenyl-phenylether,P
1,2-Diphenylhydrazine,T
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
Pentachlorophenol,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
Time-->


Abundance
TIC: 5M101521.D\data.ms
Fluoranthene,P
Pyrene,P
Benzidine,T
Terphenyl-d14,S
Butylbenzylphthalate,P
3,3'-Dichlorobenzidine,P
Benzo[a]anthracene,P
bis(2-Ethylhexyl)phthalate,P
Di-n-octylphthalate,P
Benzo[b]fluoranthene,P
Benzo[k]fluoranthene,P
Benzo[a]pyrene,P
Perylene-d12,I
Indeno[1,2,3-cd]pyrene,P
Dibenz[a,h]anthracene,P
Benzo[g,h,i]perylene,P
Time-->

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63412

Data File	Sample ID:	Analysis Date
Spike or Dup: 7M87665.D	WMB63412(MS)	11/15/2017 3:42:00 PM
Non Spike(If applicable):		
Inst Blank(If applicable):		
Method: 8270D	Matrix: Aqueous	QC Type: MBS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	33.946	0	100	34	20	160
Pyridine	1	51.0353	0	100	51	5	150
N-Nitrosodimethylamine	1	42.5783	0	100	43*	50	150
Benzaldehyde	1	137.5595	0	100	138	20	150
Aniline	1	93.0788	0	100	93	20	150
Pentachloroethane	1	11.4651	0	100	11*	50	130
bis(2-Chloroethyl)ether	1	73.0584	0	100	73	50	130
N-Decane	1	70.1459	0	100	70	40	130
1,3-Dichlorobenzene	1	56.723	0	100	57	50	130
1,4-Dichlorobenzene	1	56.6261	0	100	57	50	130
1,2-Dichlorobenzene	1	57.6614	0	100	58	50	130
Benzyl alcohol	1	65.3234	0	100	65*	70	130
bis(2-chloroisopropyl)ether	1	59.6235	0	100	60	40	130
Acetophenone	1	79.313	0	100	79	50	130
Hexachloroethane	1	55.7262	0	100	56	50	130
N-Nitroso-di-n-propylamine	1	81.5422	0	100	82	50	130
Nitrobenzene	1	76.8755	0	100	77	70	130
Isophorone	1	77.7909	0	100	78	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	79.0411	0	100	79	70	130
1,2,4-Trichlorobenzene	1	62.7875	0	100	63	50	130
Naphthalene	1	68.3769	0	100	68*	70	130
4-Chloroaniline	1	130.4469	0	100	130	50	150
Hexachlorobutadiene	1	59.4151	0	100	59*	70	130
Caprolactam	1	21.9953	0	100	22	20	130
2-Methylnaphthalene	1	83.8934	0	100	84	70	130
1-Methylnaphthalene	1	81.5339	0	100	82	70	130
1,1'-Biphenyl	1	84.5998	0	100	85	70	130
1,2,4,5-Tetrachlorobenzene	1	79.2693	0	100	79	70	130
Hexachlorocyclopentadiene	1	53.6572	0	100	54	20	130
2-Chloronaphthalene	1	74.2267	0	100	74	70	130
1,4-Dimethylnaphthalene	1	84.5753	0	100	85	70	130
Diphenyl Ether	1	80.7512	0	100	81	70	130
2-Nitroaniline	1	94.5229	0	100	95	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	84.8652	0	100	85	70	130
Dimethylphthalate	1	47.7943	0	100	48*	70	130
2,6-Dinitrotoluene	1	88.6559	0	100	89	70	130
Acenaphthene	1	81.0976	0	100	81	70	130
3-Nitroaniline	1	106.9424	0	100	107	50	150
Dibenzofuran	1	93.2757	0	100	93	70	130
2,4-Dinitrotoluene	1	83.9362	0	100	84	40	130
Fluorene	1	86.2784	0	100	86	70	130
4-Chlorophenyl-phenylether	1	86.1633	0	100	86	70	130
Diethylphthalate	1	63.7373	0	100	64	50	130
4-Nitroaniline	1	89.2172	0	100	89	50	150
Atrazine	1	101.1125	0	100	101	50	130
n-Nitrosodiphenylamine	1	74.4213	0	100	74	50	130
1,2-Diphenylhydrazine	1	86.3793	0	100	86	70	130
4-Bromophenyl-phenylether	1	90.4347	0	100	90	70	130
Hexachlorobenzene	1	88.7527	0	100	89	70	130
N-Octadecane	1	90.4632	0	100	90	70	130
Phenanthrene	1	84.9428	0	100	85	70	130
Anthracene	1	86.3803	0	100	86	70	130
Carbazole	1	89.1311	0	100	89	70	130
Di-n-butylphthalate	1	93.9531	0	100	94	70	130
Fluoranthene	1	87.9	0	100	88	70	130
Pyrene	1	97.8351	0	100	98	70	130
Benzidine	1	69.7955	0	100	70	1	130
Butylbenzylphthalate	1	95.5714	0	100	96	50	130
3,3'-Dichlorobenzidine	1	118.0559	0	100	118	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63412

Benzo[a]anthracene	1	90.9995	0	100	91	70	130
Chrysene	1	88.5502	0	100	89	50	130
bis(2-Ethylhexyl)phthalate	1	106.1241	0	100	106	70	130
Di-n-octylphthalate	1	105.9058	0	100	106	70	130
Benzo[b]fluoranthene	1	100.6541	0	100	101	70	130
Benzo[k]fluoranthene	1	98.3743	0	100	98	70	130
Benzo[a]pyrene	1	87.3509	0	100	87	70	130
Indeno[1,2,3-cd]pyrene	1	95.6063	0	100	96	70	130
Dibenzo[a,h]anthracene	1	96.2243	0	100	96	70	130
Benzo[g,h,i]perylene	1	89.318	0	100	89	70	130

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

Quantitation Report (QT Reviewed)

Data File: 7M87665.D Sam Mult : 1 Vial# : 16 Qt On : 11/15/17 16:07
Acq On : 11/15/17 15:42 Misc : A,BN Qt Upd On: 10/19/17 15:22

SampleID : WMB63412(MS) Operator : AH/JB Qt Meth : 7M_1019.M

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	47880	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	88965	40.00	ng	0.00
31) Naphthalene-d8	6.830	136	362309	40.00	ng	0.00
50) Acenaphthene-d10	8.256	164	217694	40.00	ng	0.00
77) Phenanthrene-d10	9.715	188	389731	40.00	ng	0.00
91) Chrysene-d12	12.765	240	371357	40.00	ng	0.00
103) Perylene-d12	14.384	264	319901	40.00	ng	-0.02
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	6.269	128	74609	51.11	ng	0.00
Spiked Amount 50.000			Recovery =	102.22%		
55) 2-Fluorobiphenyl	7.663	172	252911	37.36	ng	-0.01
Spiked Amount 50.000			Recovery =	74.72%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	386967	67.39	ng	0.00
Spiked Amount 50.000			Recovery =	134.78%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	41981	33.9460	ng	99
9) Pyridine	3.080	79	172784	51.0353	ng	70
10) N-Nitrosodimethylamine	3.005	74	85718	42.5783	ng	69
12) Benzaldehyde	5.441	77	196409	137.5595	ng	75
13) Aniline	5.537	93	403357	93.0788	ng	44
14) Pentachloroethane	5.580	117	11083	11.4651	ng	88
15) bis(2-Chloroethyl)ether	5.591	93	236670	73.0584	ng	80
19) N-Decane	5.676	57	198182	70.1459	ng	92
20) 1,3-Dichlorobenzene	5.767	146	176721	56.7230	ng	97
22) 1,4-Dichlorobenzene	5.831	146	179816	56.6261	ng	97
23) 1,2-Dichlorobenzene	5.954	146	176111	57.6614	ng	99
24) Benzyl alcohol	5.927	108	133587	65.3234	ng	71
25) bis(2-chloroisopropyl)...	6.039	45	226214	59.6235	ng	96
27) Acetophenone	6.146	105	349949	79.3130	ng	57
28) Hexachloroethane	6.232	117	69053	55.7262	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	164244	81.5422	ng	84
33) Nitrobenzene	6.280	77	248757	76.8755	ng	80
34) Isophorone	6.467	82	469652	77.7909	ng	86
38) bis(2-Chloroethoxy)met...	6.632	93	301384	79.0411	ng	97
40) 1,2,4-Trichlorobenzene	6.782	180	166519	62.7875	ng	97
41) Naphthalene	6.846	128	600510	68.3769	ng	99
42) 4-Chloroaniline	6.878	127	352374m	130.4469	ng	
43) Hexachlorobutadiene	6.931	225	80584	59.4151	ng	96
44) Caprolactam	7.129	113	25115	21.9953	ng	69
46) 2-Methylnaphthalene	7.380	142	525743	83.8934	ng	99
47) 1-Methylnaphthalene	7.460	142	489184	81.5339	ng	92
48) Methylnaphthalenes (To...	7.380	142	1015095m	165.5460	ng	
49) 1,1'-Biphenyl	7.749	154	622945	84.5998	ng	96
51) 1,2,4,5-Tetrachloroben...	7.508	216	217376	79.2693	ng	98
52) Hexachlorocyclopentadiene	7.498	237	82522	53.6572	ng	98
56) 2-Chloronaphthalene	7.776	162	430515	74.2267	ng	91
57) 1,4-Dimethylnaphthalene	8.053	156	380365	84.5753	ng	84
58) Dimethylnaphthalenes (...	8.053	156	380365	84.5753	ng	84
59) Diphenyl Ether	7.840	170	348664	80.7512	ng	75
60) 2-Nitroaniline	7.856	65	191567	94.5229	ng	44
61) Coumarin	8.037	146	2399m	0.9966	ng	
62) Acenaphthylene	8.133	152	765232	84.8652	ng	99
63) Dimethylphthalate	7.995	163	319619	47.7943	ng	98
64) 2,6-Dinitrotoluene	8.053	165	128871	88.6559	ng	65
65) Acenaphthene	8.283	153	478742	81.0976	ng	97
66) 3-Nitroaniline	8.203	138	174723	106.9424	ng	80
68) Dibenzofuran	8.438	168	759020	93.2757	ng	85
69) 2,4-Dinitrotoluene	8.411	165	179917	83.9362	ng	59
72) Fluorene	8.759	166	586349	86.2784	ng	97
73) 4-Chlorophenyl-phenyle...	8.748	204	272037	86.1633	ng	85
74) Diethylphthalate	8.625	149	442363	63.7373	ng	98
75) 4-Nitroaniline	8.769	138	179001	89.2172	ng	74
76) Atrazine	9.389	200	173260	101.1125	ng	96
79) n-Nitrosodiphenylamine	8.860	169	436356	74.4213	ng	98
81) 1,2-Diphenylhydrazine	8.903	77	608374	86.3793	ng	86
82) 4-Bromophenyl-phenylether	9.234	248	166146	90.4347	ng	85

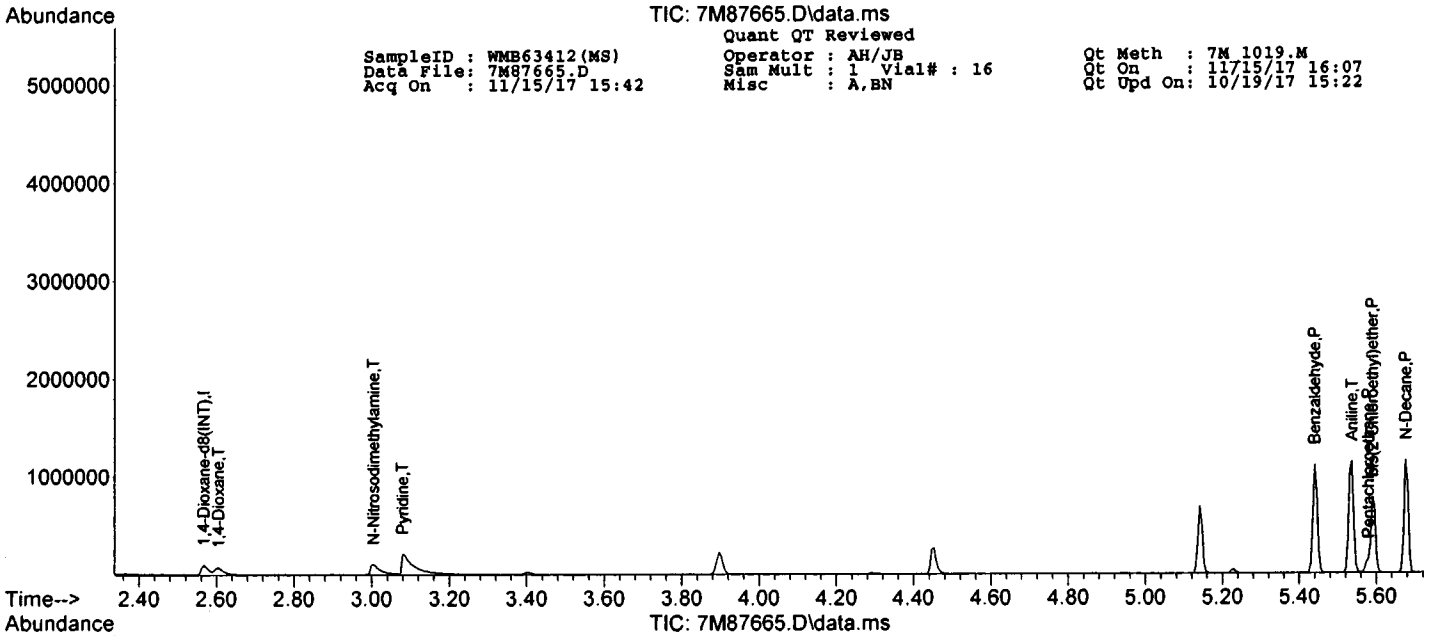
Quantitation Report (QT Reviewed)

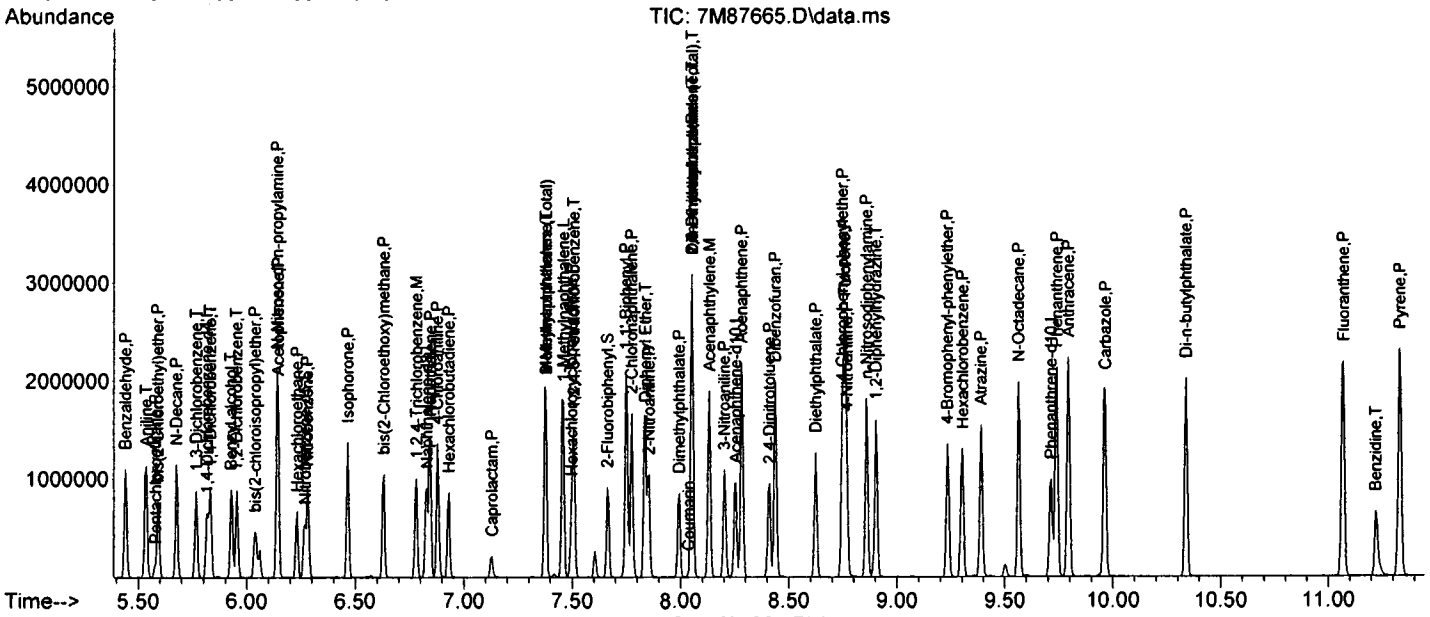
SampleID : WMB63412(MS) Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87665.D Sam Mult : 1 Vial# : 16 Qt On : 11/15/17 16:07
Acq On : 11/15/17 15:42 Misc : A,BN Qt Upd On: 10/19/17 15:22

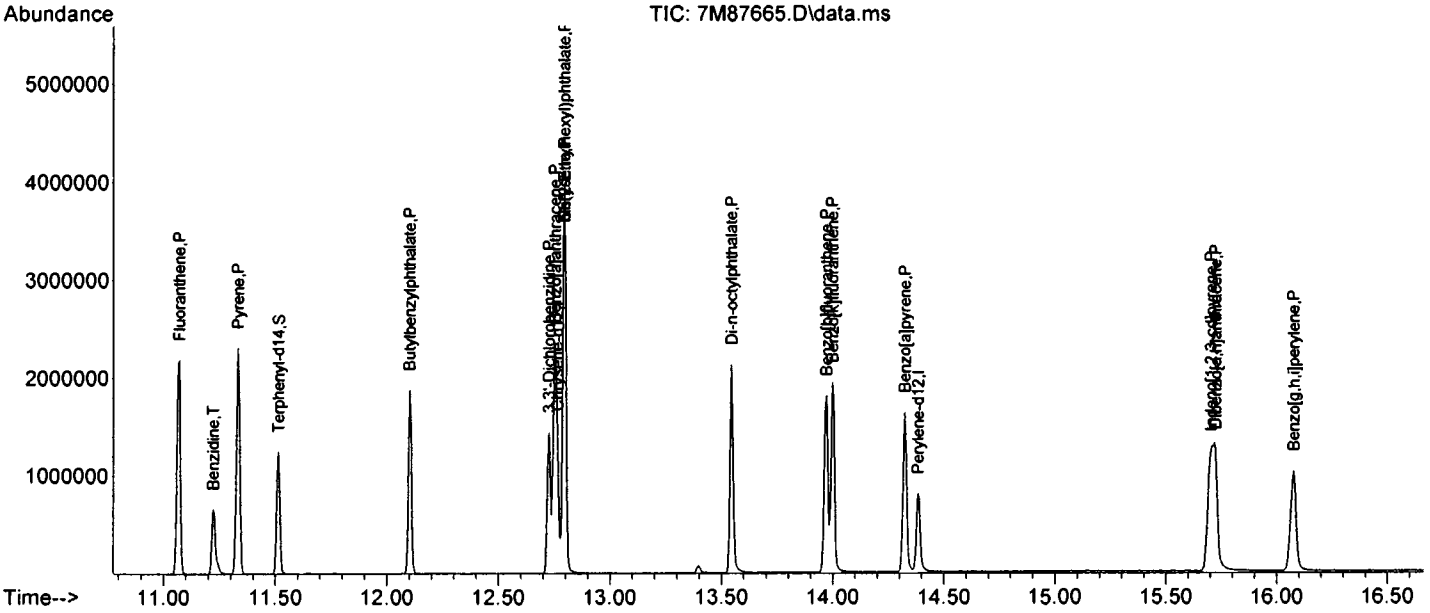
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-15-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83)	Hexachlorobenzene	9.303	284	171899	88.7527	ng	65
84)	N-Octadecane	9.565	57	351108	90.4632	ng	77
86)	Phenanthrene	9.742	178	870895	84.9428	ng	99
87)	Anthracene	9.795	178	887707	86.3803	ng	100
88)	Carbazole	9.966	167	876754	89.1311	ng	97
89)	Di-n-butylphthalate	10.340	149	1050117	93.9531	ng	97
90)	Fluoranthene	11.072	202	999544	87.9000	ng	93
92)	Pyrene	11.334	202	1011515	97.8351	ng	93
93)	Benzidine	11.221	184	301453	69.7955	ng	91
97)	Butylbenzylphthalate	12.103	149	471425	95.5714	ng	74
99)	3,3'-Dichlorobenzidine	12.728	252	325527	118.0559	ng	97
100)	Benzo[a]anthracene	12.755	228	886136	90.9995	ng	100
101)	Chrysene	12.797	228	801352	88.5502	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.797	149	638523	106.1241	ng	93
104)	Di-n-octylphthalate	13.545	149	1102803	105.9058	ng	99
105)	Benzo[b]fluoranthene	13.973	252	845855	100.6541	ng	94
106)	Benzo[k]fluoranthene	13.999	252	833799	98.3743	ng	95
107)	Benzo[a]pyrene	14.325	252	714833	87.3509	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.703	276	813726	95.6063	ng	90
109)	Dibenzo[a,h]anthracene	15.725	278	677414	96.2243	ng	91
110)	Benzo[g,h,i]perylene	16.077	276	648304	89.3180	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87665.D\data.ms
Quant QT Reviewed
SampleID : WMB63412(MS)
Data File: 7M87665.D
Acq On : 11/15/17 15:42
Operator : AH/JB
Sam Mult : 1 Vial# : 16
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/15/17 16:07
Qt Upd On: 10/19/17 15:22
5000000
4000000
3000000
2000000
1000000
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
Benzaldehyde,P
Aniline,T
N-Decane,P
Time-->
2.40
2.60
2.80
3.00
3.20
3.40
3.60
3.80
4.00
4.20
4.40
4.60
4.80
5.00
5.20
5.40
5.60


Abundance
TIC: 7M87665.D\data.ms
5000000
4000000
3000000
2000000
1000000
Benzaldehyde,P
Aniline,T
N-Decane,P
Isophorone,P
bis(2-Chloroethoxy)methane,P
Caprolactam,P
2-Fluorobiphenyl,S
Dimethylphthalate,P
Acenaphthylene,M
Acenaphthene,P
Dibenzofuran,P
Diethylphthalate,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00


Abundance
TIC: 7M87665.D\data.ms
5000000
4000000
3000000
2000000
1000000
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
Butylbenzylphthalate,P
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time-->
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63387

Data File	Sample ID:	Analysis Date
Spike or Dup: 7M87610.D	AD01096-002(MS:AD01096-001	11/13/2017 3:54:00 PM
Non Spike(If applicable): 7M87609.D	AD01096-001	11/13/2017 3:31:00 PM
Inst Blank(If applicable):		

Method: 8270D Matrix: Aqueous QC Type: MS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	30.7253	0	100	31	20	160
Pyridine	1	43.7671	0	100	44	5	150
N-Nitrosodimethylamine	1	37.8743	0	100	38*	50	150
Benzaldehyde	1	127.8019	0	100	128	20	150
Aniline	1	86.9301	0	100	87	20	150
Pentachloroethane	1	3.9071	0	100	3.9*	50	130
bis(2-Chloroethyl)ether	1	76.8829	0	100	77	50	130
N-Decane	1	29.3014	0	100	29*	40	130
1,3-Dichlorobenzene	1	78.5053	0	100	79	50	130
1,4-Dichlorobenzene	1	82.5539	0	100	83	50	130
1,2-Dichlorobenzene	1	83.0155	0	100	83	50	130
Benzyl alcohol	1	54.627	0	100	55*	70	130
bis(2-chloroisopropyl)ether	1	72.0159	0	100	72	40	130
Acetophenone	1	77.8852	0	100	78	50	130
Hexachloroethane	1	81.9066	0	100	82	50	130
N-Nitroso-di-n-propylamine	1	85.9863	0	100	86	50	130
Nitrobenzene	1	88.8982	0	100	89	70	130
Isophorone	1	85.1242	0	100	85	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	87.2705	0	100	87	70	130
1,2,4-Trichlorobenzene	1	88.5242	0	100	89	50	130
Naphthalene	1	82.3016	0	100	82	70	130
4-Chloroaniline	1	135.1723	0	100	135	50	150
Hexachlorobutadiene	1	86.8616	0	100	87	70	130
Caprolactam	1	13.4887	0	100	13*	20	130
2-Methylnaphthalene	1	76.8317	0	100	77	70	130
1-Methylnaphthalene	1	74.5262	0	100	75	70	130
1,1'-Biphenyl	1	83.6898	0	100	84	70	130
1,2,4,5-Tetrachlorobenzene	1	80.2698	0	100	80	70	130
Hexachlorocyclopentadiene	1	81.9069	0	100	82	20	130
2-Chloronaphthalene	1	90.5571	0	100	91	70	130
1,4-Dimethylnaphthalene	1	85.2588	0	100	85	70	130
Diphenyl Ether	1	83.1229	0	100	83	70	130
2-Nitroaniline	1	99.446	0	100	99	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	96.0041	0	100	96	70	130
Dimethylphthalate	1	67.4076	0	100	67*	70	130
2,6-Dinitrotoluene	1	96.0017	0	100	96	70	130
Acenaphthene	1	92.0192	0	100	92	70	130
3-Nitroaniline	1	109.338	0	100	109	50	150
Dibenzofuran	1	97.8295	0	100	98	70	130
2,4-Dinitrotoluene	1	88.3568	0	100	88	40	130
Fluorene	1	92.1284	0	100	92	70	130
4-Chlorophenyl-phenylether	1	91.8257	0	100	92	70	130
Diethylphthalate	1	88.1787	0	100	88	50	130
4-Nitroaniline	1	90.5328	0	100	91	50	150
Atrazine	1	99.7345	0	100	100	50	130
n-Nitrosodiphenylamine	1	78.0479	0	100	78	50	130
1,2-Diphenylhydrazine	1	102.5771	0	100	103	70	130
4-Bromophenyl-phenylether	1	96.2201	0	100	96	70	130
Hexachlorobenzene	1	95.3606	0	100	95	70	130
N-Octadecane	1	92.3057	0	100	92	70	130
Phenanthrene	1	91.0665	0	100	91	70	130
Anthracene	1	91.8654	0	100	92	70	130
Carbazole	1	92.2378	0	100	92	70	130
Di-n-butylphthalate	1	102.3613	0	100	102	70	130
Fluoranthene	1	93.7854	0	100	94	70	130
Pyrene	1	99.7665	0	100	100	70	130
Benzidine	1	49.198	0	100	49	1	130
Butylbenzylphthalate	1	96.4257	0	100	96	50	130
3,3'-Dichlorobenzidine	1	117.3194	0	100	117	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	96.6805	0	100	97	70	130
Chrysene	1	93.1992	0	100	93	50	130
bis(2-Ethylhexyl)phthalate	1	107.2992	0	100	107	70	130
Di-n-octylphthalate	1	105.0723	0	100	105	70	130
Benzo[b]fluoranthene	1	102.6774	0	100	103	70	130
Benzo[k]fluoranthene	1	105.1172	0	100	105	70	130
Benzo[a]pyrene	1	94.7541	0	100	95	70	130
Indeno[1,2,3-cd]pyrene	1	102.4435	0	100	102	70	130
Dibenzo[a,h]anthracene	1	101.3393	0	100	101	70	130
Benzo[g,h,i]perylene	1	94.5416	0	100	95	70	130

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

Form3
Recovery Data Laboratory Limits
QC Batch: WMB63387

	Data File	Sample ID:	Analysis Date
Spike or Dup:	7M87611.D	AD01096-003(MSD:AD01096-0	11/13/2017 4:18:00 PM
Non Spike(If applicable):	7M87609.D	AD01096-001	11/13/2017 3:31:00 PM
Inst Blank(If applicable):			

Method: 8270D | Matrix: Aqueous | QC Type: MSD

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	30.2336	0	100	30	20	160
Pyridine	1	45.5314	0	100	46	5	150
N-Nitrosodimethylamine	1	38.1791	0	100	38*	50	150
Benzaldehyde	1	132.1508	0	100	132	20	150
Aniline	1	93.0443	0	100	93	20	150
Pentachloroethane	1	4.2841	0	100	4.3*	50	130
bis(2-Chloroethyl)ether	1	74.4438	0	100	74	50	130
N-Decane	1	47.3259	0	100	47	40	130
1,3-Dichlorobenzene	1	40.3851	0	100	40*	50	130
1,4-Dichlorobenzene	1	43.4694	0	100	43*	50	130
1,2-Dichlorobenzene	1	48.492	0	100	48*	50	130
Benzyl alcohol	1	57.3032	0	100	57*	70	130
bis(2-chloroisopropyl)ether	1	62.446	0	100	62	40	130
Acetophenone	1	79.0657	0	100	79	50	130
Hexachloroethane	1	42.5134	0	100	43*	50	130
N-Nitroso-di-n-propylamine	1	83.8999	0	100	84	50	130
Nitrobenzene	1	85.7705	0	100	86	70	130
Isophorone	1	85.8543	0	100	86	70	130
Benzoic Acid	1	0	0	100	0*	20	130
bis(2-Chloroethoxy)methane	1	88.2295	0	100	88	70	130
1,2,4-Trichlorobenzene	1	77.0946	0	100	77	50	130
Naphthalene	1	73.604	0	100	74	70	130
4-Chloroaniline	1	145.4196	0	100	145	50	150
Hexachlorobutadiene	1	69.5742	0	100	70	70	130
Caprolactam	1	14.6959	0	100	15*	20	130
2-Methylnaphthalene	1	89.2712	0	100	89	70	130
1-Methylnaphthalene	1	83.4009	0	100	83	70	130
1,1'-Biphenyl	1	87.2643	0	100	87	70	130
1,2,4,5-Tetrachlorobenzene	1	86.2859	0	100	86	70	130
Hexachlorocyclopentadiene	1	78.1912	0	100	78	20	130
2-Chloronaphthalene	1	91.0001	0	100	91	70	130
1,4-Dimethylnaphthalene	1	89.8076	0	100	90	70	130
Diphenyl Ether	1	87.7665	0	100	88	70	130
2-Nitroaniline	1	103.151	0	100	103	50	150
Coumarin	1	0	0	100	0*	70	130
Acenaphthylene	1	98.8179	0	100	99	70	130
Dimethylphthalate	1	37.4114	0	100	37*	70	130
2,6-Dinitrotoluene	1	104.1447	0	100	104	70	130
Acenaphthene	1	94.5126	0	100	95	70	130
3-Nitroaniline	1	115.8602	0	100	116	50	150
Dibenzofuran	1	103.2628	0	100	103	70	130
2,4-Dinitrotoluene	1	90.3226	0	100	90	40	130
Fluorene	1	94.3493	0	100	94	70	130
4-Chlorophenyl-phenylether	1	95.396	0	100	95	70	130
Diethylphthalate	1	82.9682	0	100	83	50	130
4-Nitroaniline	1	95.5584	0	100	96	50	150
Atrazine	1	102.7898	0	100	103	50	130
n-Nitrosodiphenylamine	1	82.2705	0	100	82	50	130
1,2-Diphenylhydrazine	1	95.9348	0	100	96	70	130
4-Bromophenyl-phenylether	1	100.3479	0	100	100	70	130
Hexachlorobenzene	1	98.2547	0	100	98	70	130
N-Octadecane	1	95.9988	0	100	96	70	130
Phenanthrene	1	93.8729	0	100	94	70	130
Anthracene	1	94.0879	0	100	94	70	130
Carbazole	1	95.0235	0	100	95	70	130
Di-n-butylphthalate	1	105.0725	0	100	105	70	130
Fluoranthene	1	96.6888	0	100	97	70	130
Pyrene	1	104.555	0	100	105	70	130
Benzidine	1	59.6545	0	100	60	1	130
Butylbenzylphthalate	1	102.7247	0	100	103	50	130
3,3'-Dichlorobenzidine	1	129.5935	0	100	130	1	150

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

Form3

Recovery Data Laboratory Limits

QC Batch: WMB63387

Benzo[a]anthracene	1	101.4149	0	100	101	70	130
Chrysene	1	98.9527	0	100	99	50	130
bis(2-Ethylhexyl)phthalate	1	112.4447	0	100	112	70	130
Di-n-octylphthalate	1	109.2401	0	100	109	70	130
Benzo[b]fluoranthene	1	111.0198	0	100	111	70	130
Benzo[k]fluoranthene	1	105.0532	0	100	105	70	130
Benzo[a]pyrene	1	100.0347	0	100	100	70	130
Indeno[1,2,3-cd]pyrene	1	109.5249	0	100	110	70	130
Dibenzo[a,h]anthracene	1	107.1627	0	100	107	70	130
Benzo[g,h,i]perylene	1	102.5937	0	100	103	70	130

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

Form3
RPD Data Laboratory Limits
QC Batch: WMB63387

	Data File	Sample ID:	Analysis Date
Spike or Dup:	7M87611.D	AD01096-003(MSD:AD01096-0	11/13/2017 4:18:00 PM
Duplicate(If applicable):	7M87610.D	AD01096-002(MS:AD01096-001	11/13/2017 3:54:00 PM
Inst Blank(If applicable):			

Method: 8270D | Matrix: Aqueous | QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
1,4-Dioxane	1	30.2336	30.7253	1.6	20
Pyridine	1	45.5314	43.7671	4	40
N-Nitrosodimethylamine	1	38.1791	37.8743	0.8	20
Benzaldehyde	1	132.1508	127.8019	3.3	20
Aniline	1	93.0443	86.9301	6.8	20
Pentachloroethane	1	4.2841	3.9071	9.2	20
bis(2-Chloroethyl)ether	1	74.4438	76.8829	3.2	20
N-Decane	1	47.3259	29.3014	47*	20
1,3-Dichlorobenzene	1	40.3851	78.5053	64*	20
1,4-Dichlorobenzene	1	43.4694	82.5539	62*	40
1,2-Dichlorobenzene	1	48.492	83.0155	53*	20
Benzyl alcohol	1	57.3032	54.627	4.8	20
bis(2-chloroisopropyl)ether	1	62.446	72.0159	14	20
Acetophenone	1	79.0657	77.8852	1.5	20
Hexachloroethane	1	42.5134	81.9066	63*	40
N-Nitroso-di-n-propylamine	1	83.8999	85.9863	2.5	40
Nitrobenzene	1	85.7705	88.8982	3.6	40
Isophorone	1	85.8543	85.1242	0.85	20
Benzoic Acid	1	0	0	NA	20
bis(2-Chloroethoxy)methane	1	88.2295	87.2705	1.1	20
1,2,4-Trichlorobenzene	1	77.0946	88.5242	14	40
Naphthalene	1	73.604	82.3016	11	40
4-Chloroaniline	1	145.4196	135.1723	7.3	20
Hexachlorobutadiene	1	69.5742	86.8616	22	40
Caprolactam	1	14.6959	13.4887	8.6	20
2-Methylnaphthalene	1	89.2712	76.8317	15	20
1-Methylnaphthalene	1	83.4009	74.5262	11	20
1,1'-Biphenyl	1	87.2643	83.6898	4.2	20
1,2,4,5-Tetrachlorobenzene	1	86.2859	80.2698	7.2	20
Hexachlorocyclopentadiene	1	78.1912	81.9069	4.6	20
2-Chloronaphthalene	1	91.0001	90.5571	0.49	20
1,4-Dimethylnaphthalene	1	89.8076	85.2588	5.2	20
Diphenyl Ether	1	87.7665	83.1229	5.4	20
2-Nitroaniline	1	103.151	99.446	3.7	20
Coumarin	1	0	0	NA	20
Acenaphthylene	1	98.8179	96.0041	2.9	20
Dimethylphthalate	1	37.4114	67.4076	57*	20
2,6-Dinitrotoluene	1	104.1447	96.0017	8.1	20
Acenaphthene	1	94.5126	92.0192	2.7	40
3-Nitroaniline	1	115.8602	109.338	5.8	20
Dibenzofuran	1	103.2628	97.8295	5.4	20
2,4-Dinitrotoluene	1	90.3226	88.3568	2.2	40
Fluorene	1	94.3493	92.1284	2.4	40
4-Chlorophenyl-phenylether	1	95.396	91.8257	3.8	20
Diethylphthalate	1	82.9682	88.1787	6.1	20
4-Nitroaniline	1	95.5584	90.5328	5.4	20
Atrazine	1	102.7898	99.7345	3	20
n-Nitrosodiphenylamine	1	82.2705	78.0479	5.3	20
1,2-Diphenylhydrazine	1	95.9348	102.5771	6.7	20
4-Bromophenyl-phenylether	1	100.3479	96.2201	4.2	20
Hexachlorobenzene	1	98.2547	95.3606	3	40
N-Octadecane	1	95.9988	92.3057	3.9	20
Phenanthrene	1	93.8729	91.0665	3	20
Anthracene	1	94.0879	91.8654	2.4	20
Carbazole	1	95.0235	92.2378	3	20
Di-n-butylphthalate	1	105.0725	102.3613	2.6	20
Fluoranthene	1	96.6888	93.7854	3	20
Pyrene	1	104.555	99.7665	4.7	40
Benzidine	1	59.6545	49.198	19	20
Butylbenzylphthalate	1	102.7247	96.4257	6.3	40
3,3'-Dichlorobenzidine	1	129.5935	117.3194	9.9	20
Benzo[a]anthracene	1	101.4149	96.6805	4.8	20
Chrysene	1	98.9527	93.1992	6	20

Form3
RPD Data Laboratory Limits
QC Batch: WMB63387

bis(2-Ethylhexyl)phthalate	1	112.4447	107.2992	4.7	20
Di-n-octylphthalate	1	109.2401	105.0723	3.9	20
Benzo[b]fluoranthene	1	111.0198	102.6774	7.8	20
Benzo[k]fluoranthene	1	105.0532	105.1172	0.06	20
Benzo[a]pyrene	1	100.0347	94.7541	5.4	20
Indeno[1,2,3-cd]pyrene	1	109.5249	102.4435	6.7	20
Dibenzo[a,h]anthracene	1	107.1627	101.3393	5.6	20
Benzo[g,h,i]perylene	1	102.5937	94.5416	8.2	20

* - Indicates outside of limits

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

Quantitation Report (QT Reviewed)

SampleID : AD01096-001 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87609.D Sam Mult : 1 Vial# : 16 Qt On : 11/14/17 08:48
Acq On : 11/13/17 15:31 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.556	96	59360	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.815	152	104385	40.00	ng	0.00
31) Naphthalene-d8	6.846	136	403639	40.00	ng	0.02
50) Acenaphthene-d10	8.289	164	230681	40.00	ng	0.03
77) Phenanthrene-d10	9.736	188	397439	40.00	ng	0.02
91) Chrysene-d12	12.771	240	383735	40.00	ng	0.00
103) Perylene-d12	14.411	264	326591	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	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
32) Nitrobenzene-d5	6.269	128	60888	37.44	ng	0.00
Spiked Amount 50.000			Recovery =	74.88%		
55) 2-Fluorobiphenyl	7.701	172	288702	40.25	ng	0.03
Spiked Amount 50.000			Recovery =	80.50%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.526	244	307294	51.79	ng	0.00
Spiked Amount 50.000			Recovery =	103.58%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

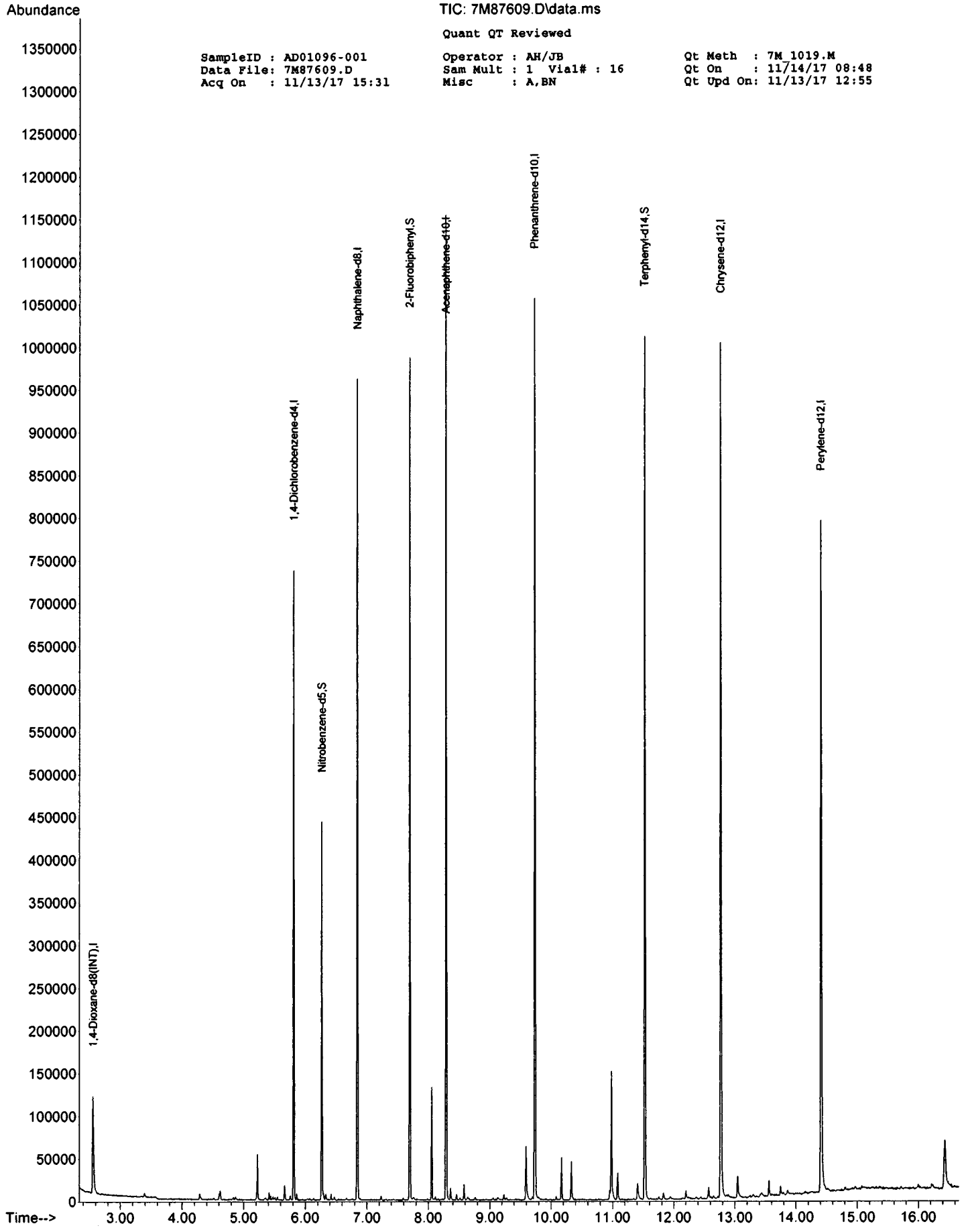
TIC: 7M87609.D\data.ms

Quant QT Reviewed

SampleID : AD01096-001
Data File: 7M87609.D
Acq On : 11/13/17 15:31

Operator : AH/JB
Sam Mult : 1 Vial# : 16
Misc : A,BN

Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:48
Qt Upd On: 11/13/17 12:55



SampleID : AD01096-002(MS:AD01 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87610.D Sam Mult : 1 Vial# : 17 Qt On : 11/14/17 08:50
Acq On : 11/13/17 15:54 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	55259	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	96631	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	375944	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	215125	40.00	ng	-0.01
77) Phenanthrene-d10	9.709	188	380317	40.00	ng	-0.01
91) Chrysene-d12	12.765	240	380764	40.00	ng	0.00
103) Perylene-d12	14.384	264	334443	40.00	ng	-0.02
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	6.264	128	67135	44.32	ng	0.00
Spiked Amount 50.000			Recovery =	88.64%		
55) 2-Fluorobiphenyl	7.663	172	203342	30.40	ng	-0.01
Spiked Amount 50.000			Recovery =	60.80%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	326860	55.52	ng	0.00
Spiked Amount 50.000			Recovery =	111.04%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	43817	30.7253	ng	99
9) Pyridine	3.080	79	171013	43.7671	ng	70
10) N-Nitrosodimethylamine	3.000	74	87999	37.8743	ng	71
12) Benzaldehyde	5.441	77	214047	127.8019	ng	77
13) Aniline	5.532	93	434568	86.9301	ng	44
14) Pentachloroethane	5.575	117	4359	3.9071	ng	95
15) bis(2-Chloroethyl)ether	5.591	93	287443	76.8829	ng	80
19) N-Decane	5.676	57	95543	29.3014	ng	93
20) 1,3-Dichlorobenzene	5.767	146	282278	78.5053	ng	98
22) 1,4-Dichlorobenzene	5.831	146	284739	82.5539	ng	99
23) 1,2-Dichlorobenzene	5.954	146	275396	83.0155	ng	97
24) Benzyl alcohol	5.927	108	121339	54.6270	ng	73
25) bis(2-chloroisopropyl)...	6.039	45	296775	72.0159	ng	99
27) Acetophenone	6.146	105	373261	77.8852	ng	56
28) Hexachloroethane	6.232	117	110240	81.9066	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	187612	85.9863	ng	85
33) Nitrobenzene	6.280	77	298486	88.8982	ng	80
34) Isophorone	6.467	82	533267	85.1242	ng	86
38) bis(2-Chloroethoxy)met...	6.627	93	345286	87.2705	ng	98
40) 1,2,4-Trichlorobenzene	6.777	180	243611	88.5242	ng	96
41) Naphthalene	6.841	128	826604	82.3016	ng	99
42) 4-Chloroaniline	6.878	127	374254m	135.1723	ng	
43) Hexachlorobutadiene	6.926	225	122243	86.8616	ng	97
44) Caprolactam	7.124	113	15777	13.4887	ng	70
46) 2-Methylnaphthalene	7.375	142	499609	76.8317	ng	100
47) 1-Methylnaphthalene	7.455	142	463967	74.5262	ng	92
48) Methylnaphthalenes (To...	7.375	142	966003m	151.8261	ng	
49) 1,1'-Biphenyl	7.749	154	639436	83.6898	ng	94
51) 1,2,4,5-Tetrachloroben...	7.503	216	217522	80.2698	ng	98
52) Hexachlorocyclopentadiene	7.492	237	124482	81.9069	ng	99
56) 2-Chloronaphthalene	7.770	162	519033	90.5571	ng	92
57) 1,4-Dimethylnaphthalene	8.048	156	378914	85.2588	ng	88
59) Diphenyl Ether	7.834	170	354669	83.1229	ng	75
60) 2-Nitroaniline	7.850	65	199166	99.4460	ng	47
61) Coumarin	8.032	146	1869m	0.7857	ng	
62) Acenaphthylene	8.128	152	855456	96.0041	ng	100
63) Dimethylphthalate	7.989	163	445461	67.4076	ng	99
64) 2,6-Dinitrotoluene	8.048	165	137902	96.0017	ng	66
65) Acenaphthene	8.278	153	536805	92.0192	ng	99
66) 3-Nitroaniline	8.203	138	176310	109.3380	ng	75
68) Dibenzofuran	8.433	168	786178	97.8295	ng	85
69) 2,4-Dinitrotoluene	8.406	165	187476	88.3568	ng	65
72) Fluorene	8.759	166	618717	92.1284	ng	98
73) 4-Chlorophenyl-phenyle...	8.748	204	286493	91.8257	ng	82
74) Diethylphthalate	8.620	149	604774	88.1787	ng	98
75) 4-Nitroaniline	8.764	138	179610	90.5328	ng	75
76) Atrazine	9.389	200	168882	99.7345	ng	96
79) n-Nitrosodiphenylamine	8.855	169	446566	78.0479	ng	97
81) 1,2-Diphenylhydrazine	8.903	77	705005	102.5771	ng	81
82) 4-Bromophenyl-phenylether	9.234	248	172505	96.2201	ng	83
83) Hexachlorobenzene	9.298	284	180236	95.3606	ng	68

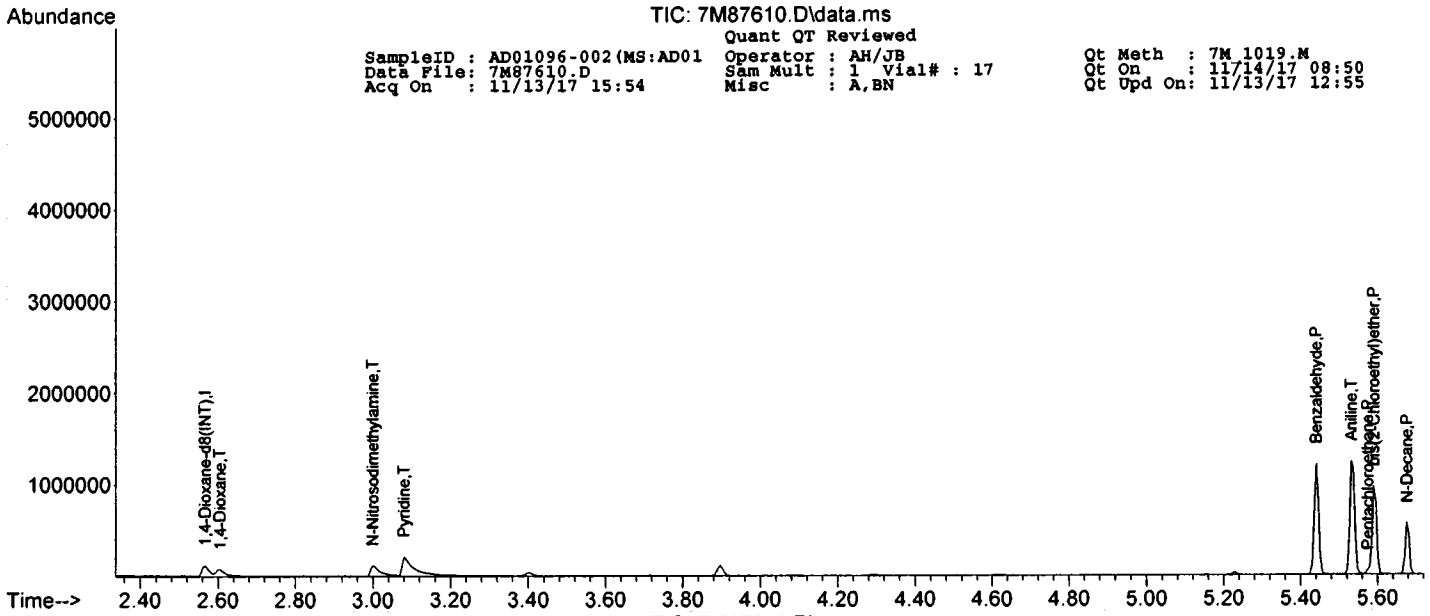
Quantitation Report (QT Reviewed)

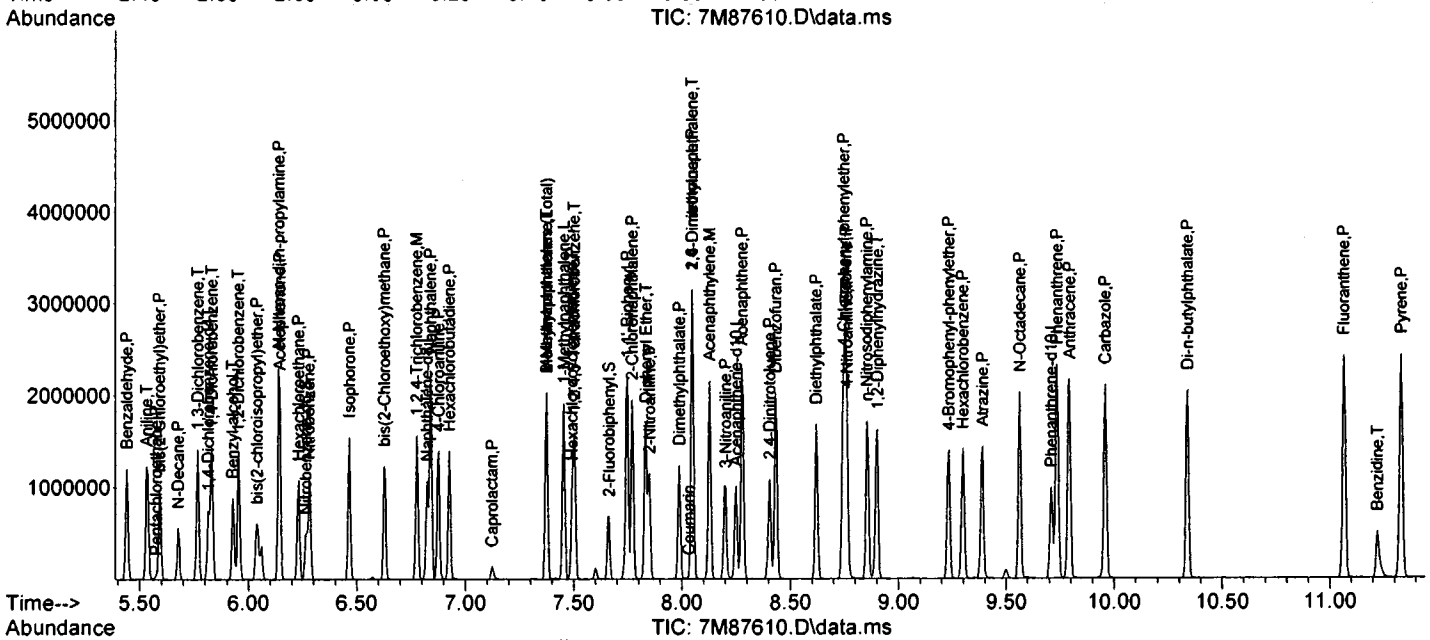
SampleID : AD01096-002(MS:AD01 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87610.D Sam Mult : 1 Vial# : 17 Qt On : 11/14/17 08:50
Acq On : 11/13/17 15:54 Misc : A,BN Qt Upd On: 11/13/17 12:55

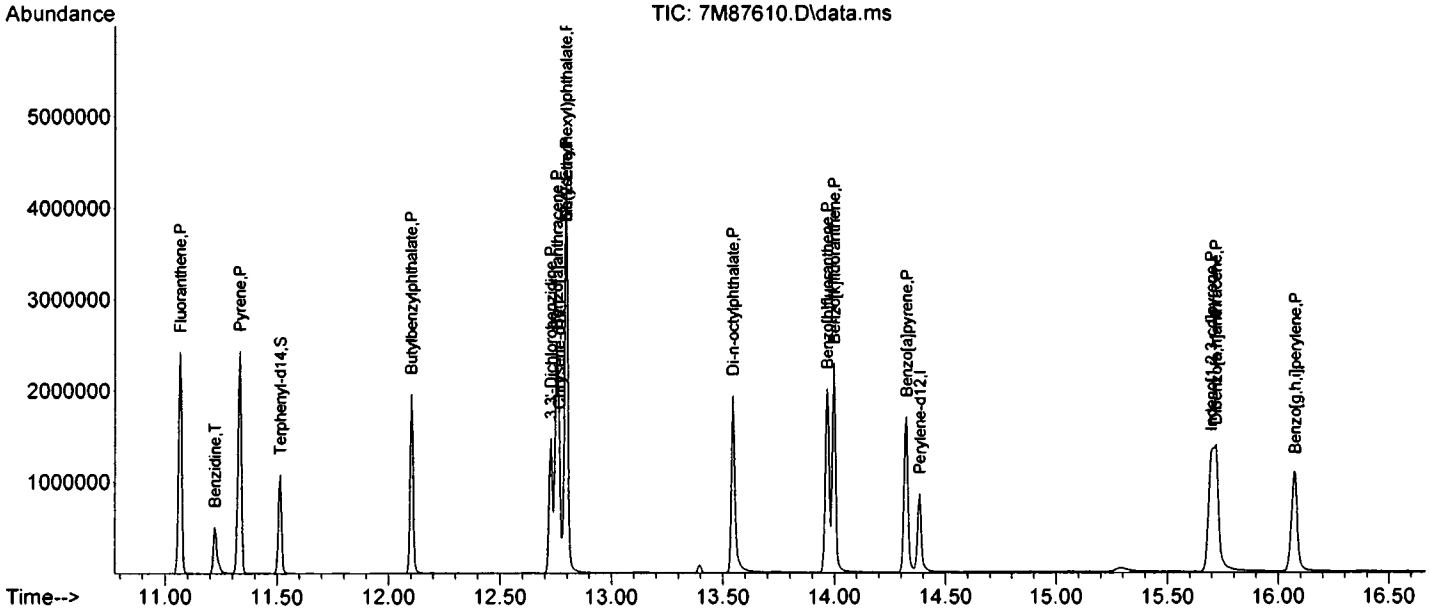
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Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
84)	N-Octadecane	9.565	57	349605	92.3057	ng	75
86)	Phenanthrene	9.736	178	911127	91.0665	ng	98
87)	Anthracene	9.795	178	921271	91.8654	ng	100
88)	Carbazole	9.961	167	885397	92.2378	ng	97
89)	Di-n-butylphthalate	10.340	149	1116460	102.3613	ng	97
90)	Fluoranthene	11.066	202	1040709	93.7854	ng	96
92)	Pyrene	11.334	202	1057613	99.7665	ng	91
93)	Benzidine	11.221	184	220671	49.1980	ng	91
97)	Butylbenzylphthalate	12.103	149	488001	96.4257	ng	75
99)	3,3'-Dichlorobenzidine	12.728	252	331857	117.3194	ng	97
100)	Benzo[a]anthracene	12.755	228	965305	96.6805	ng	99
101)	Chrysene	12.797	228	864789m	93.1992	ng	
102)	bis(2-Ethylhexyl)phtha...	12.797	149	661947	107.2992	ng	93
104)	Di-n-octylphthalate	13.545	149	1142924	105.0723	ng	100
105)	Benzo[b]fluoranthene	13.967	252	902082m	102.6774	ng	
106)	Benzo[k]fluoranthene	13.999	252	931451	105.1172	ng	95
107)	Benzo[a]pyrene	14.325	252	810666	94.7541	ng	93
108)	Indeno[1,2,3-cd]pyrene	15.698	276	911554	102.4435	ng	90
109)	Dibenzo[a,h]anthracene	15.719	278	745854	101.3393	ng	92
110)	Benzo[g,h,i]perylene	16.077	276	717413	94.5416	ng	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed


Abundance
TIC: 7M87610.D\data.ms
Quant QT Reviewed
SampleID : AD01096-002(MS:AD01
Data File: 7M87610.D
Acq On : 11/13/17 15:54
Operator : AH/JB
Sam Mult : 1 Vial# : 17
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:50
Qt Upd On: 11/13/17 12:55
1,4-Dioxane-d8(INT),I
1,4-Dioxane,T
N-Nitrosodimethylamine,T
Pyridine,T
Benzaldehyde,P
Aniline,T
N-Decane,P
Time-->


Abundance
TIC: 7M87610.D\data.ms
Benzaldehyde,P
N-Decane,P
Isophorone,P
bis(2-Chloroethoxy)methane,P
Caprolactam,P
2-Fluorobiphenyl,S
Dimethylphthalate,P
Acenaphthylene,M
Acenaphthene,P
2,4-Dinitrotoluene,P
Diethylphthalate,P
Fluorene,P
4-Bromophenyl-phenylether,P
Hexachlorobenzene,P
Atrazine,P
N-Octadecane,P
Phenanthrene,P
Anthracene,P
Carbazole,P
Di-n-butylphthalate,P
Fluoranthene,P
Benzidine,T
Pyrene,P
Time-->


Abundance
TIC: 7M87610.D\data.ms
Fluoranthene,P
Benzidine,T
Pyrene,P
Terphenyl-d14,S
Butylbenzylphthalate,P
Di-n-octylphthalate,P
Benzo[a]pyrene,P
Perylene-d12,I
Benzo[g,h,i]perylene,P
Time-->

Quantitation Report (QT Reviewed)

SampleID : AD01096-003(MSD:AD0 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87611.D Sam Mult : 1 Vial# : 18 Qt On : 11/14/17 08:52
Acq On : 11/13/17 16:18 Misc : A,BN Qt Upd On: 11/13/17 12:55

Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\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)	2.567	96	55888	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.815	152	100296	40.00	ng	0.00
31) Naphthalene-d8	6.825	136	383224	40.00	ng	0.00
50) Acenaphthene-d10	8.251	164	219669	40.00	ng	-0.01
77) Phenanthrene-d10	9.715	188	388728	40.00	ng	0.00
91) Chrysene-d12	12.765	240	380101	40.00	ng	0.00
103) Perylene-d12	14.389	264	336967	40.00	ng	-0.02
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	6.264	128	72627	47.04	ng	0.00
Spiked Amount 50.000			Recovery =	94.08%		
55) 2-Fluorobiphenyl	7.663	172	252451	36.96	ng	-0.01
Spiked Amount 50.000			Recovery =	73.92%		
80) 2,4,6-Tribromophenol	0.000	330	0	0.00	ng	
Spiked Amount 100.000			Recovery =	0.00%		
94) Terphenyl-d14	11.515	244	344259	58.57	ng	0.00
Spiked Amount 50.000			Recovery =	117.14%		
Target Compounds						Qvalue
8) 1,4-Dioxane	2.604	88	43601	30.2336	ng	98
9) Pyridine	3.080	79	179932	45.5314	ng	70
10) N-Nitrosodimethylamine	3.000	74	89717	38.1791	ng	72
12) Benzaldehyde	5.441	77	222243	132.1508	ng	76
13) Aniline	5.537	93	470643	93.0443	ng	44
14) Pentachloroethane	5.580	117	4834	4.2841	ng	90
15) bis(2-Chloroethyl)ether	5.591	93	281492	74.4438	ng	81
19) N-Decane	5.676	57	156072	47.3259	ng	93
20) 1,3-Dichlorobenzene	5.767	146	146864	40.3851	ng	97
22) 1,4-Dichlorobenzene	5.831	146	155618	43.4694	ng	98
23) 1,2-Dichlorobenzene	5.954	146	166969	48.4920	ng	96
24) Benzyl alcohol	5.927	108	132111	57.3032	ng	73
25) bis(2-chloroisopropyl)...	6.039	45	267098	62.4460	ng	98
27) Acetophenone	6.146	105	393290	79.0657	ng	57
28) Hexachloroethane	6.232	117	59390	42.5134	ng	85
29) N-Nitroso-di-n-propyla...	6.141	70	190244	83.8999	ng	85
33) Nitrobenzene	6.280	77	293561	85.7705	ng	80
34) Isophorone	6.467	82	548256	85.8543	ng	86
38) bis(2-Chloroethoxy)met...	6.632	93	355840	88.2295	ng	98
40) 1,2,4-Trichlorobenzene	6.782	180	216266	77.0946	ng	96
41) Naphthalene	6.841	128	753564	73.6040	ng	99
42) 4-Chloroaniline	6.878	127	399421m	145.4196	ng	
43) Hexachlorobutadiene	6.932	225	99810	69.5742	ng	97
44) Caprolactam	7.129	113	17554	14.6959	ng	62
46) 2-Methylnaphthalene	7.375	142	591740	89.2712	ng	99
47) 1-Methylnaphthalene	7.455	142	529271	83.4009	ng	91
48) Methylnaphthalenes (To...	7.375	142	1123764m	173.2661	ng	
49) 1,1'-Biphenyl	7.749	154	679658	87.2643	ng	96
51) 1,2,4,5-Tetrachloroben...	7.508	216	238764	86.2859	ng	98
52) Hexachlorocyclopentadiene	7.498	237	121345	78.1912	ng	96
56) 2-Chloronaphthalene	7.776	162	532589	91.0001	ng	91
57) 1,4-Dimethylnaphthalene	8.053	156	407561	89.8076	ng	86
59) Diphenyl Ether	7.834	170	382392	87.7665	ng	79
60) 2-Nitroaniline	7.850	65	210950	103.1510	ng	55
62) Acenaphthylene	8.128	152	899128	98.8179	ng	100
63) Dimethylphthalate	7.989	163	252454	37.4114	ng	99
64) 2,6-Dinitrotoluene	8.053	165	152759	104.1447	ng	60
65) Acenaphthene	8.283	153	562996	94.5126	ng	98
66) 3-Nitroaniline	8.203	138	190129	115.8602	ng	78
68) Dibenzofuran	8.438	168	846723	103.2628	ng	83
69) 2,4-Dinitrotoluene	8.411	165	195843	90.3226	ng	59
72) Fluorene	8.759	166	647016	94.3493	ng	97
73) 4-Chlorophenyl-phenyle...	8.748	204	303919	95.3960	ng	84
74) Diethylphthalate	8.625	149	581057	82.9682	ng	97
75) 4-Nitroaniline	8.769	138	194050	95.5584	ng	73
76) Atrazine	9.389	200	177732	102.7898	ng	93
79) n-Nitrosodiphenylamine	8.860	169	481137	82.2705	ng	97
81) 1,2-Diphenylhydrazine	8.903	77	673935	95.9348	ng	84
82) 4-Bromophenyl-phenylether	9.234	248	183884	100.3479	ng	84
83) Hexachlorobenzene	9.303	284	189813	98.2547	ng	64
84) N-Octadecane	9.565	57	371634	95.9988	ng	77

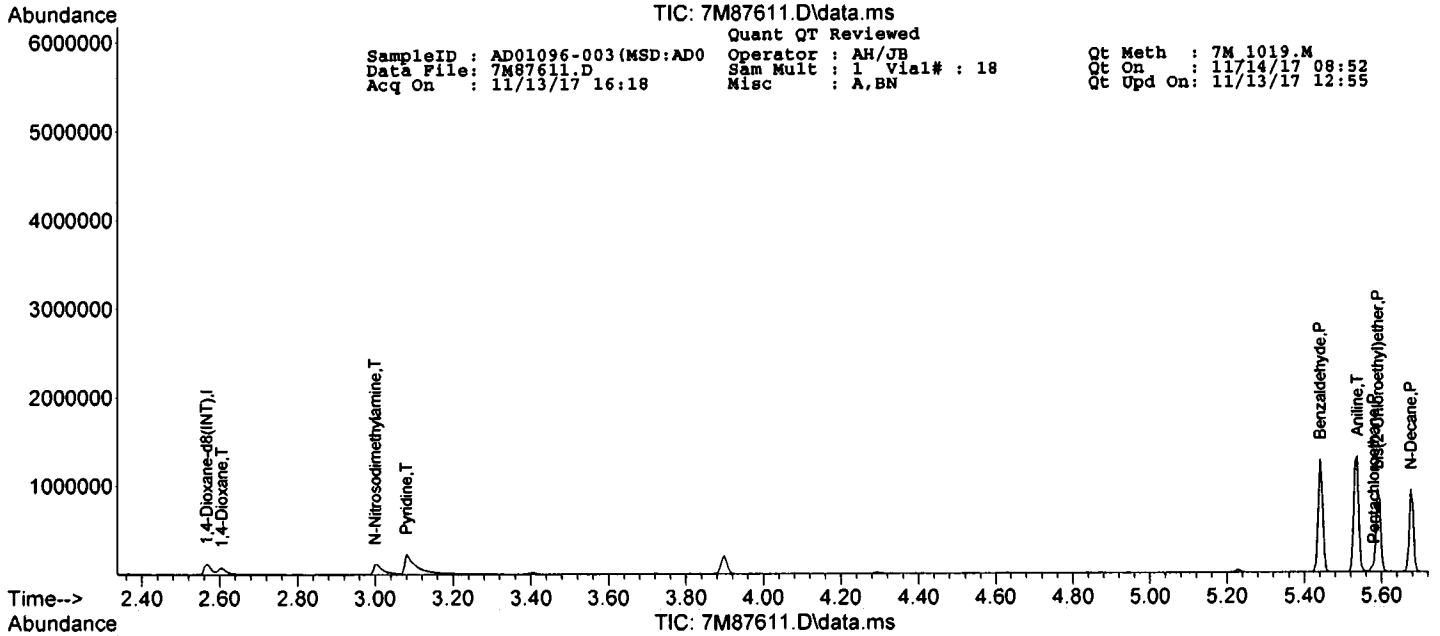
Quantitation Report (QT Reviewed)

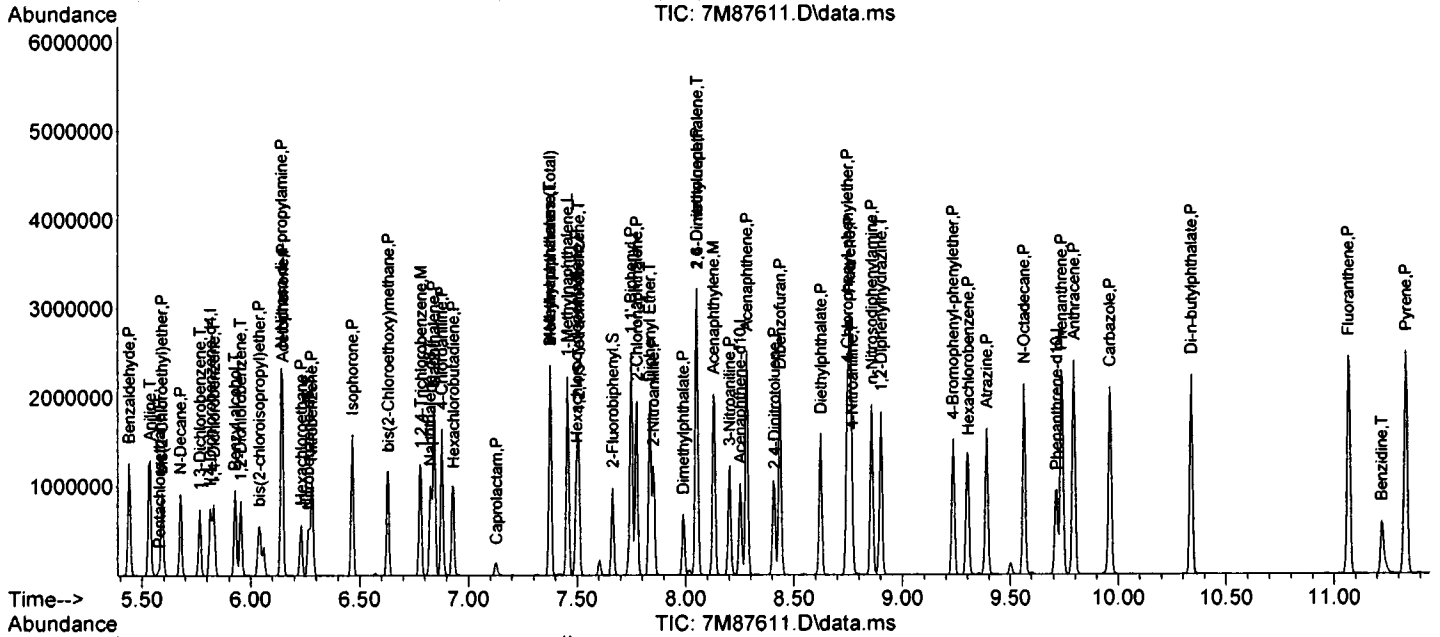
SampleID : AD01096-003(MSD:AD0 Operator : AH/JB Qt Meth : 7M_1019.M
Data File: 7M87611.D Sam Mult : 1 Vial# : 18 Qt On : 11/14/17 08:52
Acq On : 11/13/17 16:18 Misc : A,BN Qt Upd On: 11/13/17 12:55

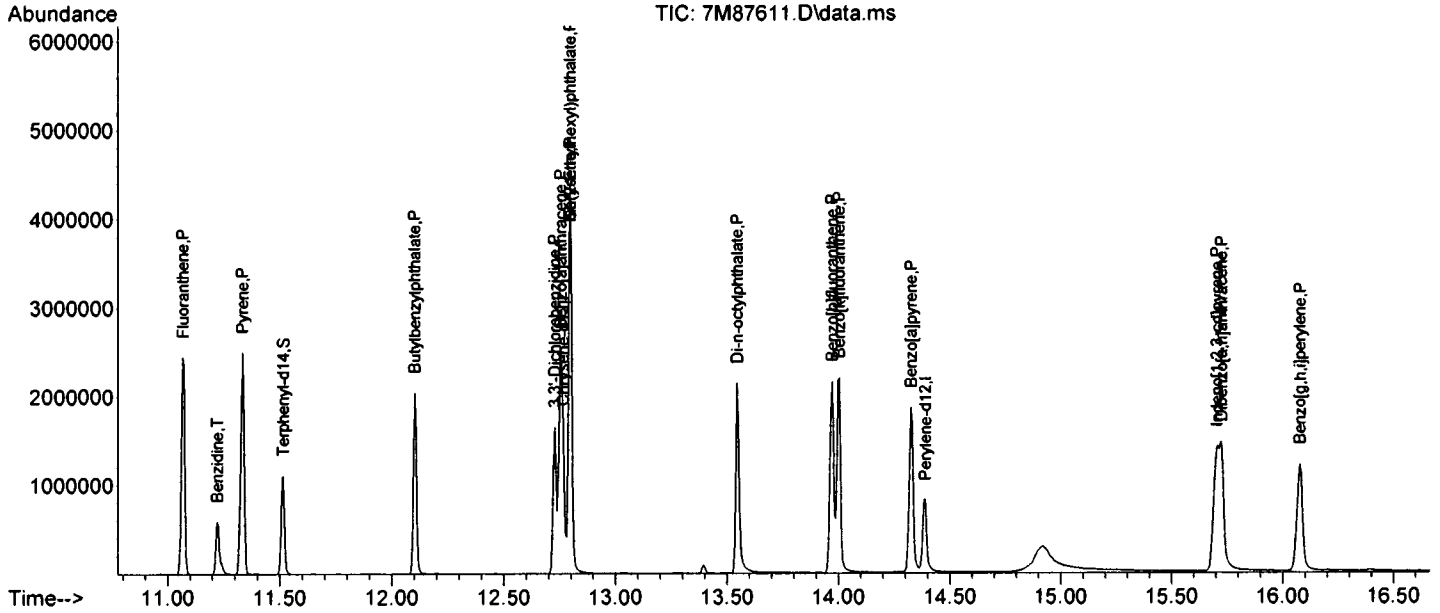
Data Path : G:\GcMsData\2017\GCMS_7\Data\11-13-17\
Qt Path : G:\GCMSDATA\2017\GCMS_7\METHODQT\
Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86)	Phenanthrene	9.736	178	959976	93.8729	ng	99
87)	Anthracene	9.795	178	964427	94.0879	ng	100
88)	Carbazole	9.961	167	932310	95.0235	ng	98
89)	Di-n-butylphthalate	10.340	149	1171377	105.0725	ng	98
90)	Fluoranthene	11.066	202	1096655	96.6888	ng	97
92)	Pyrene	11.334	202	1106445	104.5550	ng	92
93)	Benzidine	11.221	184	265387	59.6545	ng	93
97)	Butylbenzylphthalate	12.103	149	521431	102.7247	ng	74
99)	3,3'-Dichlorobenzidine	12.728	252	362883	129.5935	ng	97
100)	Benzo[a]anthracene	12.755	228	1010812	101.4149	ng	100
101)	Chrysene	12.797	228	916577	98.9527	ng	99
102)	bis(2-Ethylhexyl)phtha...	12.797	149	692483	112.4447	ng	92
104)	Di-n-octylphthalate	13.545	149	1202130	109.2401	ng	100
105)	Benzo[b]fluoranthene	13.973	252	982736m	111.0198	ng	
106)	Benzo[k]fluoranthene	14.005	252	937909m	105.0532	ng	
107)	Benzo[a]pyrene	14.325	252	862303	100.0347	ng	95
108)	Indeno[1,2,3-cd]pyrene	15.704	276	981920	109.5249	ng	89
109)	Dibenzo[a,h]anthracene	15.725	278	794666	107.1627	ng	92
110)	Benzo[g,h,i]perylene	16.077	276	784390	102.5937	ng	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed


TIC: 7M87611.D\data.ms
Quant QT Reviewed
SampleID : AD01096-003(MSD:AD0
Data File: 7M87611.D
Acq On : 11/13/17 16:18
Operator : AH/JB
Sam Mult : 1 Vial# : 18
Misc : A,BN
Qt Meth : 7M_1019.M
Qt On : 11/14/17 08:52
Qt Upd On: 11/13/17 12:55
Abundance
Time-->


TIC: 7M87611.D\data.ms
Abundance
Time-->


TIC: 7M87611.D\data.ms
Abundance
Time-->

GC/MS Base Neutral/Acid Extractable Data
Logbook Data

QC63387

Hampton-Clarke

Extraction of Semi-volatile – Aqueous
Method 3510 C

Method Blank No. WMB- _____
Blank Spike (MBS): _____
Start extraction time: 9:00 AM
End extraction time: 3:00 PM
Recirculator: Start temp: 15.5°C
End temp: 15.5°C

Date: 11/13/17
Matrix Spike: 63387
Shaker Used: 4, 5, 6, 7
Condenser used: 6, 7, 8
Condenser Flow: 2500 CCM

Sample Number	Number in Batch	Initial Volume	Final Volume	Fraction			Extracted By/ Comments	Ext. by	TCLP QC	Extract Fluid
				BN	BNA	AE				
MB 63387	Y	1000 mL	0.5 mL	X			1/2 SURROG	AP		
MBS 63387	X		1 mL							
MS 01096-002	X									
MS 01096-003	X									
AD 01096-001	1		0.5 mL				1/2 SURROG			
-004	2									
-005	3									
-006	4									
-007	5									
-008	6									
-009	7									
-010	8									
-011	9									
-012	10									
-013	11									
-014	12									
-015	13									
-016	14									
AD 01073-002	15		1 mL							
-004	16									
-006	17									
-008	18									
-010	19									
-012	20									

Spike Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50	2000	11074	BN MIX
		11078	TOXIC MIX
		264405	CLP MIX

Surrogate Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50	1000/2000	264305	BN SURROG

Reagent Lots: MeCl2 11240 Acetone _____ Hexane _____ Na2SO4 11266

Other _____

Relinquished By: AP Date: 11/13/17

Received By: JPT Date: 11/14/17

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QC63402

Hampton-Clarke

Extraction of Semi-volatile – Aqueous
Method 3510 C

Method Blank No. WMB- _____
Blank Spike (MBS): _____
Start extraction time: 10:54
End extraction time: _____
Recirculator: Start temp: 15.5
End temp: 15.5

Date: 11/14/17
Matrix Spike: 63402
Shaker Used: 1213
Condenser used: 1215
Condenser Flow: 2500 CCM

Sample Number	Number in Batch	Initial Volume	Final Volume	Fraction			Extracted By/ Comments	Ext. by	TCLP QC	Extract Fluid
				BN	BNA	AE				
MB 63402	X	1000ml	0.5 ml		X		½ surr	LV		
MBS 63402	X	↓	1 ml		↓			↓		
MS 01097-007	X	1000ml	↓							
MSD 01097-008	X	980 ml								
AD 01097-006	1	1000ml	0.5 ml				Full surr			
AD 01080-017	2	↓	↓ 1 ml							
AD 00920-009	R	250ml	1 ml		↓					
AD 01097-001	3	1000 ml	0.5 ml	X			½ surr			
-002	4									
-003	5									
-004	6									
-005	7									
AD 01096-017	8									
AD 01116-001	9									
AD 01116-002	10		↓							
AD 01077-007	11	1000 ml	1 ml							
AD 01081-008	12									
AD 01083-001	13									
-002	14									
-003	15									
AD 01089-001	16									
-002	17									
-003	18	↓	↓	↓						

Spike Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50	2000	11074	BN MIX
		11070	Toxic Mix
		11071	Acid Comp
		264405	CLP Mix

Surrogate Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50	1000/2000	264805	BN Surr

Reagent Lots: MeCl2 11240 Acetone _____ Hexane _____ Na2SO4 11260

Other _____

Relinquished By: LV Date: 11/14/17

Received By: JRyn Date: 11/15/17

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QC63412

Hampton-Clarke

Extraction of Semi-volatile – Aqueous
Method 3510 C

Method Blank No. WMB- _____
Blank Spike (MBS): _____
Start extraction time: 10:34
End extraction time: 4:50
Recirculator: Start temp: 15.5
End temp: 15.5

Date: 11/15/17
Matrix Spike: 63412
Shaker Used: 1, 2, 3
Condenser used: 1, 2, 5
Condenser Flow: 2500 CCM

Sample Number	Number in Batch	Initial Volume	Final Volume	Fraction			Extracted By/ Comments	Ext. by	TCLP QC	Extract Fluid
				BN	BNA	AE				
MB 63412	X	1000 mL	0.5 mL	X			½ surr	LV		
MBS 63412	X	↓	1 mL							
MS 01106-002	X	500 mL								
MSD 01106-002	X									
AD01106-002	1	↓	0.5 mL				½ surr			
-001	2	1000 ml	1 ml							
AD01097-009	3		0.5 mL				½ surr			
-010	4									
-011	5									
-012	6									
-013	7									
-014	8									
-015	9									
-016	10									
-017	11									
AD01119-001	12									
-002	13									
-003	14									
-004	15									
-005	16									
-006	17									
-007	18									
-008	19	↓								
AD01096-015	R	900 mL	↓	↓			↓	↓		

Spike Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50/50	2000	11074	BN Mix
		11071	Acid comp
		11070	Toxic Mix
		264406	CLP Mix

Surrogate Standard

Vol (ul's)	Conc. (ppm/ppb)	Lot No.	
50/25	1000/2000	261805	BNA Surr

Reagent Lots: MeCl2 11240 Acetone _____ Hexane _____ Na2SO4 11266

Other _____

Relinquished By: LV Date: 11/15/17

Received By: JRyn Date: 11/16/17

T:\QC\FORMS\LOGBOOK FORMS\extractions\BN Aqu_ Ext Log 2016.doc

RUN LOG

Instrument: GCMS_10 Year: 2017
Analyst: AH/JB

1-1-10M65424

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
10M65424.	CAL DFTPP	Ed1=1.3;	OK, V-261052	JB 10/12/17		Aqueous	1	1		10/11 11:02
10M65425.	CAL BNA@10PPM	IsC16C18	RR	JB 10/12/17		Aqueous	1	1	625\827	10/11 12:08
10M65426.	CAL BNA@2PPM		OK, V-265146	JB 10/12/17		Aqueous	1	1	625\827	10/11 12:48
10M65427.	CAL BNA@196PPM		OK, V-265144	JB 10/12/17		Aqueous	1	1	625\827	10/11 13:10
10M65428.	CAL BNA@160PPM		OK, V-265143	JB 10/12/17		Aqueous	1	1	625\827	10/11 13:33
10M65429.	CAL BNA@120PPM		OK, V-265142	JB 10/12/17		Aqueous	1	1	625\827	10/11 13:55
10M65430.	CAL BNA@80PPM		OK, V-265141	JB 10/12/17		Aqueous	1	1	625\827	10/11 14:17
10M65431.	CAL BNA@50PPM	IsC18	RR	JB 10/12/17		Aqueous	1	1	625\827	10/11 14:39
10M65432.	CAL BNA@20PPM		OK, V-265139	JB 10/12/17		Aqueous	1	1	625\827	10/11 15:01
10M65433.	CAL BNA@.5PPM		OK, V-265147	JB 10/12/17		Aqueous	1	1	625\827	10/11 15:24
10M65434.	CAL BNA@10PPM		OK, V-265138	JB 10/12/17		Aqueous	1	1	625\827	10/11 15:51
10M65435.	CAL BNA@50PPM		OK, V-265140	JB 10/12/17		Aqueous	1	1	625\827	10/11 16:13
10M65436.	ICV BNA@50PPM	IsIvo	OK, V-265149	JB 10/12/17		Aqueous	1	1	625\827	10/11 16:35

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
B6m	Blank 600 series missing	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for anh
B8m	Blank 8000 series missing	Eto	Tdn Extraction Performed Outside of Hold	EvF	Eval Mix Failed
Bnf	Blank Not Found/Assigned	Ev	Eval Time Exceeded	Evnc	Eval Mix Not Checked
C18	Calibration Column 1 Out (600 Series)	Hh	Analysis Before Collection Date	Evm	Eval Mix missing ddt or endrin
iC18	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
C28	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
iC28	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
iC6f	600 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Drift
iC8f	8000 series sample/blank did not have passing cal	Iv	Pmh with calmd csv for init calibration chek rds	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 samol	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_7 Year: 2017
Analyst: AH/JB

1-1-7M87268

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
7M87268.D	CAL DFTPP	Ed1=1.3;	OK, V-261052	JB 10/20/17		Aqueous	1	1		10/19 09:03
7M87269.D	CAL BNA@10PPM	IsC16C18	RR	JB 10/20/17		Aqueous	1	1	625\827	10/19 09:26
7M87270.D	CAL BNA@2PPM		OK, V-265651	JB 10/20/17		Aqueous	1	1	625\827	10/19 10:27
7M87271.D	CAL BNA@10PPM		OK, V-265643	JB 10/20/17		Aqueous	1	1	625\827	10/19 10:51
7M87272.D	CAL BNA@196PPM		OK, V-265649	JB 10/20/17		Aqueous	1	1	625\827	10/19 11:15
7M87273.D	CAL BNA@160PPM		OK, V-265648	JB 10/20/17		Aqueous	1	1	625\827	10/19 11:38
7M87274.D	CAL BNA@120PPM		OK, V-265647	JB 10/20/17		Aqueous	1	1	625\827	10/19 12:02
7M87275.D	CAL BNA@80PPM		OK, V-265646	JB 10/20/17		Aqueous	1	1	625\827	10/19 12:25
7M87276.D	CAL BNA@20PPM		OK, V-265644	JB 10/20/17		Aqueous	1	1	625\827	10/19 12:48
7M87277.D	CAL BNA@.5PPM		OK, V-265652	JB 10/20/17		Aqueous	1	1	625\827	10/19 13:11
7M87278.D	CAL BNA@50PPM		OK, V-265645	JB 10/20/17		Aqueous	1	1	625\827	10/19 13:35
7M87279.D	ICV BNA@50PPM	Isivo	OK, V-265149	JB 10/20/17		Aqueous	1	1	625\827	10/19 13:58

Anc	Area Not Checked	En	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tetn/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for aqh
B8m	Blank 8000 series missing	Etn	Tetn 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	Evm	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	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 calmd csv for init calibration chek rfs	S6	600 series surrogate out
Cma	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 samol	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_5 Year: 2017
Analyst: AH/JB

1-1-5M101319

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
5M101319.	CAL DFTPP	Ed1=0.73;	OK, V-261052	JB 10/20/17		Aqueous	1	1		10/20 08:27
5M101320.	CAL BNA@50PPM	IsC16	RR	JB 10/20/17		Aqueous	1	1	625\827	10/20 08:56
5M101321.	CAL BNA@10PPM		OK, V-265643	JB 10/20/17		Aqueous	1	1	625\827	10/20 09:25
5M101322.	CAL BNA@2PPM		OK, V-265651	JB 10/20/17		Aqueous	1	1	625\827	10/20 09:48
5M101323.	CAL BNA@196PPM		OK, V-265649	JB 10/20/17		Aqueous	1	1	625\827	10/20 10:26
5M101324.	CAL BNA@160PPM		OK, V-265648	JB 10/20/17		Aqueous	1	1	625\827	10/20 10:49
5M101325.	CAL BNA@120PPM		OK, V-265647	JB 10/20/17		Aqueous	1	1	625\827	10/20 11:12
5M101326.	CAL BNA@80PPM		OK, V-265646	JB 10/20/17		Aqueous	1	1	625\827	10/20 11:34
5M101327.	CAL BNA@20PPM		OK, V-265644	JB 10/20/17		Aqueous	1	1	625\827	10/20 11:57
5M101328.	CAL BNA@.5PPM		OK, V-265652	JB 10/20/17		Aqueous	1	1	625\827	10/20 12:20
5M101329.	CAL BNA@50PPM		OK, V-265645	JB 10/20/17		Aqueous	1	1	625\827	10/20 12:43
5M101330.	ICV BNA@50PPM	IsIvo	OK, V-265149	JB 10/20/17		Aqueous	1	1	625\827	10/20 13:06

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	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Crn	C30/C20 failed for enh
B8m	Blank 8000 series missing	Etn	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 ddt or endrin
C18	Calibration Column 1 Out (8000 Series)	Ho	Sample Analyzed outside of hold time	R16 R26	Rpd 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	Rpd Out on MsMsd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 sedes 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	Pmb with calmt csv for init calibration chek rfs	S6	600 sedes 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 sampl	Sa6,Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_7 Year: 2017
Analyst: AH/JB

1-1-7M87594

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
7M87594.D	CAL DFTPP	Ed1=1.1;	OK, V-261052	JB 11/13/17		Aqueous	1	1		11/13 09:03
7M87595.D	CAL BNA@50PPM		OK, V-265645	JB 11/13/17		Aqueous	1	1	625\827	11/13 09:31
7M87596.D	WMB63382(MS)		OK WMB63382	JB 11/15/17		Aqueous	1	1	625\827	11/13 09:57
7M87597.D	WMB63382		MB FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 10:21
7M87598.D	01064-014		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 10:44
7M87599.D	01063-014		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 11:07
7M87600.D	01063-017(MS:AD0		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 11:30
7M87601.D	01063-018(MSD:AD		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 11:54
7M87602.D	01063-015		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 12:17
7M87603.D	01063-016		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 12:40
7M87604.D	01063-019		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 13:04
7M87605.D	01063-020		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 13:27
7M87606.D	01063-021		BATCH FAILED	JB 11/15/17		Aqueous	1	1	625\827	11/13 13:50
7M87607.D	WMB63387(MS)		RR WMB63387	JB 11/14/17		Aqueous	1	1	625\827	11/13 14:13
7M87608.D	WMB63387		OK	JB 11/14/17		Aqueous	1	1	625\827	11/13 14:37
7M87609.D	AD01096-001		OK WMB63387	JB 11/14/17	BN-8270	Aqueous	1	1	625\827	11/13 15:31
7M87610.D	AD01096-002(MS:AM18		OK WMB63387	JB 11/14/17	BN-8270	Aqueous	1	1	625\827	11/13 15:54
7M87611.D	AD01096-003(MSD:R16R18M18		OK WMB63387	JB 11/14/17	BN-8270	Aqueous	1	1	625\827	11/13 16:18
7M87612.D	AD01096-004		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 16:41
7M87613.D	AD01096-005		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 17:04
7M87614.D	AD01096-006		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 17:28
7M87615.D	AD01096-007		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 17:51
7M87616.D	AD01096-008		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 18:15
7M87617.D	AD01096-009		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 18:38
7M87618.D	AD01096-010		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 19:01
7M87619.D	AD01096-011		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 19:25
7M87620.D	AD01096-012		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 19:48
7M87621.D	AD01096-013		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 20:12
7M87622.D	AD01096-014		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 20:35

Anc	Area Not Checked	Ec	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for aqh
B8m	Blank 8000 series missing	Eto	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 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	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	Pmh with calmd csv for init calibration chek rfs	S6	600 series surrogate out
Cme	Endmn 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 samol	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_10Year: 2017
Analyst: AH/JB

1-1-10M66012

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
10M66012.	CAL DFTPP	Ed1=0.53;	OK, V-261052	JB 11/13/17		Aqueous	1	1		11/13 09:06
10M66013.	BNA@50PPM	CnAnc	NOT USED	JB 11/13/17		Aqueous	1	1	625\827	11/13 10:26
10M66014.	CAL BNA@50PPM	C16	OK, V-265140	JB 11/13/17		Aqueous	1	1	625\827	11/13 13:15
10M66015.	WMB63387	C6f	OK FOR 8270 METHOD	JB 11/13/17		Aqueous	1	1	625\827	11/13 14:10
10M66016.	SMB63395(MS)		OK SMB63395	JB 11/13/17		Soil	1	1	8270D	11/13 14:32
10M66017.	SMB63395		OK	JB 11/13/17		Soil	1	1	8270D	11/13 14:55
10M66018.	SMB63391(MS)		OK SMB63391	JB 11/13/17		Soil	1	1	8270D	11/13 15:17
10M66019.	SMB63391		OK	JB 11/14/17		Soil	1	1	8270D	11/13 15:39
10M66020.	AD01096-015(5X)	Sd	RE-EXTRACT	JB 11/14/17	BN-8270	Aqueous	5	5	8270D	11/13 16:01
10M66021.	AD01096-016		OK	JB 11/14/17	BN-8270	Aqueous	1	1	8270D	11/13 16:23
10M66022.	AD01080-015		OK	JB 11/14/17	BNA-8270	Soil	1	1	8270D	11/13 16:46
10M66023.	AD01080-019		OK	JB 11/14/17	BNA-8270	Soil	1	1	8270D	11/13 17:08
10M66024.	AD01080-002	Sa8Sb8	RE-EXTRACT	JB 11/14/17	BNA-8270	Soil	1	1	8270D	11/13 17:30
10M66025.	AD01080-003		OK	JB 11/14/17	BNA-8270	Soil	1	1	8270D	11/13 17:52
10M66026.	AD01080-005		OK	JB 11/14/17	BNA-8270	Soil	1	1	8270D	11/13 18:15

Anc	Area Not Checked	En	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for anh
B8m	Blank 8000 series missing	Eto	Tdn Extraction Performed Outside of Hold	FvF	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	Rpd 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	Rpd 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 Ddft
C8f	8000 series sample/blank did not have passing cal	Iv	Prob with calmt.csv for init calibration chek 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 samol	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_5 Year: 2017
Analyst: AH/JB

1-1-5M101507

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
5M101507.	CAL DFTPP	Ed1=0.96;	OK, V-261052	JB 11/14/17		Aqueous	1	1		11/14 08:38
5M101508.	CAL BNA@50PPM		OK, V-265645	JB 11/14/17		Aqueous	1	1	625\827	11/14 09:01
5M101509.	EF-1 V-266631(11/0		OK	JB 11/14/17		Aqueous	1	11	8270D	11/14 09:37
5M101510.	EF-1 V-266631(11/0		OK	JB 11/14/17		Aqueous	1	11	8270D	11/14 10:00
5M101511.	AD01055-009		OK	JB 11/14/17	BNA-8270	Aqueous	1	1	8270D	11/14 10:23
5M101512.	AD01028-013(R)		OK	JB 11/14/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 10:46
5M101513.	AD01050-005(R)		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 11:09
5M101514.	AD01066-001		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 11:47
5M101515.	WMB63387(MS)	M18	OK WMB63387	JB 11/14/17		Aqueous	1	1	625\827	11/14 12:10
5M101516.	WMB63394(MS)		OK WMB63394	JB 11/14/17		Aqueous	1	1	625\827	11/14 12:33
5M101517.	WMB63394		OK	JB 11/14/17		Aqueous	1	1	625\827	11/14 12:57
5M101518.	AD01067-001		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 13:20
5M101519.	AD01067-002		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 13:43
5M101520.	AD01063-014(10X)		OK WMB63394	JB 11/15/17	BNPAH-8270	Aqueous	10	10	625\827	11/14 15:39
5M101521.	WMB63402(MS)	M18	OK WMB63402	JB 11/15/17		Aqueous	1	1	625\827	11/14 16:03
5M101522.	WMB63402		OK	JB 11/15/17		Aqueous	1	1	625\827	11/14 16:27
5M101523.	AD01063-017(10X)(Sd		OK WMB63394	JB 11/15/17	BNPAH-8270	Aqueous	10	10	625\827	11/14 16:52
5M101524.	AD01063-018(10X)(Sd		OK WMB63394	JB 11/15/17	BNPAH-8270	Aqueous	10	10	625\827	11/14 17:15
5M101525.	AD01063-015		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 17:38
5M101526.	AD01063-016		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:02
5M101527.	AD01063-019		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:25
5M101528.	AD01063-020		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:49
5M101529.	AD01063-021		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 19:12
5M101530.	AD01063-022		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 19:36
5M101531.	AD01063-023		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 19:59
5M101532.	AD01063-024		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 20:23

Anc	Area Not Checked	Ec	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
B6m	Blank 600 series missing	Etn	Trdn/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for anh
B8m	Blank 8000 series missing	Etn	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 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	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	Pmb with calmt csv for init calibration chek 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 Property for a sampl	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_7 Year: 2017
Analyst: AH/JB

1-1-7M87623

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
7M87623.D	CAL DFTPP	Ed1=0.95;	OK, V-261052	JB 11/14/17		Aqueous	1	1		11/14 08:38
7M87624.D	CAL BNA@50PPM	C16	OK, V-265645	JB 11/14/17		Aqueous	1	1	625\827	11/14 09:03
7M87625.D	WMB63390	C6f	RR	JB 11/14/17		Aqueous	1	1	625\827	11/14 09:33
7M87626.D	AD00971-001(T)		OK	JB 11/14/17	BNATCLP-82	Aqueous	1	1	8270D	11/14 09:56
7M87627.D	AD00920-009(T)	Sa8	RR 10X	JB 11/14/17	BNATCLP-82	Aqueous	1	1	8270D	11/14 10:20
7M87628.D	AD01015-001(T)	Esm	OK	JB 11/14/17	BNATCLP-82	Aqueous	1	1	8270D	11/14 10:43
7M87629.D	AD00920-009(10X)(	Sd	RE-EXTRACT	JB 11/14/17	BNATCLP-82	Aqueous	10	10	8270D	11/14 11:06
7M87630.D	WMB63390	C6f	OK, FOR 8270 METHOD	JB 11/14/17		Aqueous	1	1	625\827	11/14 11:30
7M87631.D	AD01071-001		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 11:53
7M87632.D	AD01071-002		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 12:17
7M87633.D	AD01071-003		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 12:40
7M87634.D	AD01071-004		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 13:04
7M87635.D	AD01071-005		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 13:27
7M87636.D	AD01071-006		OK	JB 11/14/17	BN15-8270	Aqueous	1	1	8270D	11/14 13:50
7M87637.D	WMB63394	C6f	OK, FOR 8270 METHOD	JB 11/14/17		Aqueous	1	1	625\827	11/14 14:14
7M87638.D	AD00920-009(T)(R)	Sa8	SURR CONFIRMED	JB 11/14/17	BNATCLP-82	Aqueous	1	1	8270D	11/14 15:45
7M87639.D	WMB63402	C6f	OK FOR 8270 METHOD	JB 11/15/17		Aqueous	1	1	625\827	11/14 16:09
7M87640.D	SMB63407(MS)		OK SMB63407	JB 11/15/17		Soil	1	1	8270D	11/14 16:33
7M87641.D	SMB63407		OK	JB 11/15/17		Soil	1	1	8270D	11/14 16:57
7M87642.D	AD01063-001		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 17:21
7M87643.D	AD01063-002(10X)		OK	JB 11/15/17	BNPAH-8270	Aqueous	10	10	8270D	11/14 17:44
7M87644.D	AD01063-003		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:08
7M87645.D	AD01063-004		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:31
7M87646.D	AD01063-006		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 18:55
7M87647.D	AD01063-008		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 19:19
7M87648.D	AD01063-011		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 19:42
7M87649.D	AD01063-013		OK	JB 11/15/17	BNPAH-8270	Aqueous	1	1	8270D	11/14 20:05

Anc	Area Not Checked	Eo	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Data Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tclp/Solvent Extraction Data Missing/Not check'd	Cm	C30/C20 failed for anh
B8m	Blank 8000 series missing	Eto	Tclp 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	Rpd 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	Rpd Out on MsMsd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 sedes 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	Pmb with calmt csv for init calibration chek 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 sampl	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_7 Year: 2017
Analyst: AH/JB

1-1-7M87650

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
7M87650.D	CAL DFTPP	Ed1=0.93;	OK, V-261052	JB 11/15/17		Aqueous	1	1		11/15 09:04
7M87651.D	CAL BNA@50PPM		OK, V-265645	JB 11/15/17		Aqueous	1	1	625\827	11/15 09:29
7M87652.D	AD01097-006	Sb8Sb6	OK WMB63402	JB 11/16/17	BN-8270	Aqueous	1	1	625\827	11/15 10:36
7M87653.D	AD01097-007(MS:A	Sa8Sa6	OK WMB63402	JB 11/16/17	BN-8270	Aqueous	1	1	625\827	11/15 11:00
7M87654.D	AD01097-008(MSD:	Sa8Sa6	OK WMB63402	JB 11/16/17	BN-8270	Aqueous	1	1	625\827	11/15 11:23
7M87655.D	AD01097-001		OK	JB 11/15/17	BN-8270	Aqueous	1	1	8270D	11/15 11:46
7M87656.D	AD01097-002		OK	JB 11/15/17	BN-8270	Aqueous	1	1	8270D	11/15 12:09
7M87657.D	AD01097-003		OK	JB 11/15/17	BN-8270	Aqueous	1	1	8270D	11/15 12:33
7M87658.D	AD01097-004		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 12:56
7M87659.D	AD01097-005		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 13:20
7M87660.D	AD01063-010(50X)	Sd	OK	JB 11/15/17	BNPAH-8270	Aqueous	50	50	8270D	11/15 13:43
7M87661.D	WMB63410(MS)		OK WMB63410	JB 11/15/17		Aqueous	1	1	625\827	11/15 14:06
7M87662.D	WMB63410		RR	JB 11/16/17		Aqueous	1	1	625\827	11/15 14:31
7M87663.D	AD01096-017		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 14:55
7M87664.D	AD01080-017	Sa8	OK	JB 11/15/17	BNA-8270	Aqueous	1	1	8270D	11/15 15:18
7M87665.D	WMB63412(MS)	M18	OK WMB63412	JB 11/15/17		Aqueous	1	1	625\827	11/15 15:42
7M87666.D	WMB63412		RR	JB 11/16/17		Aqueous	1	1	625\827	11/15 16:05
7M87667.D	WMB63410		OK	JB 11/16/17		Aqueous	1	1	625\827	11/15 16:28
7M87668.D	AD01106-001		OK	JB 11/16/17	BN15-8270	Aqueous	1	1	8270D	11/15 16:52
7M87669.D	AD01106-002		OK WMB63412	JB 11/16/17	BN15-8270	Aqueous	1	1	625\827	11/15 17:15
7M87670.D	AD01106-002(MS)	Sb8Sb6	OK WMB63412	JB 11/16/17	BN15-8270	Aqueous	1	1	625\827	11/15 17:39
7M87671.D	AD01106-002(MSD)	Sb8Sb6	OK WMB63412	JB 11/16/17	BN15-8270	Aqueous	1	1	625\827	11/15 18:02
7M87672.D	AD01082-013	Sb8Sb6Ocf	RR 30X WMB63410	JB 11/16/17	BNPAH-8270	Aqueous	1	1	625\827	11/15 18:26
7M87673.D	AD01082-022(MS:A	Sb8Sb6Ocf	RR 30X WMB63410	JB 11/16/17	BNPAH-8270	Aqueous	1	1	625\827	11/15 18:49
7M87674.D	AD01082-024(MSD:	Sb8Sb6Ocf	RR 30X WMB63410	JB 11/16/17	BNPAH-8270	Aqueous	1	1	625\827	11/15 19:12
7M87675.D	AD01082-020		OK	JB 11/16/17	BNPAH-8270	Aqueous	1	1	8270D	11/15 19:36
7M87676.D	AD01082-021	Ocf	RR 30X	JB 11/16/17	BNPAH-8270	Aqueous	1	1	8270D	11/15 19:59
7M87677.D	AD01082-026		OK	JB 11/16/17	BNPAH-8270	Aqueous	1	1	8270D	11/15 20:23
7M87678.D	AD01082-027		OK	JB 11/16/17	BNPAH-8270	Aqueous	1	1	8270D	11/15 20:46
7M87679.D	AD01083-001		OK	JB 11/16/17	BN-625	Aqueous	1	1	625	11/15 21:09
7M87680.D	AD01083-002		OK	JB 11/16/17	BN-625	Aqueous	1	1	625	11/15 21:33
7M87681.D	AD01083-003	Ocf	RR 2X	JB 11/16/17	BN-625	Aqueous	1	1	625	11/15 21:56

Anc	Area Not Checked	Eo	Extraction Performed Past Hold	Co	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Cro	C30/C20 failed for eph
B8m	Blank 8000 series missing	Eto	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 ddt or endrin
C18	Calibration Column 1 Out (8000 Series)	Ho	Sample Analyzed outside of hold time	R16 R26	Rpd 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	Rpd 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	Rto	Can't Calculate Drift
C8f	8000 series sample/blank did not have passing cal	Iv	Pmb with calmt csv for init calibration chek rls	S6	600 series surrogate out
Cme	Ending Cal missing for sample (8000 series)	Iw	Initial cal warning loi 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 sampl	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

RUN LOG

Instrument: GCMS_10Year: 2017
Analyst: AH/JB

1-1-10M66038

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
10M66038.	CAL DFTPP	Ed1=1.1;	OK, V-261052	JB 11/15/17		Aqueous	1	1		11/15 10:42
10M66039.	CAL BNA@50PPM	C16	OK, V-265645	JB 11/15/17		Aqueous	1	1	625\827	11/15 11:11
10M66040.	AD01055-002		OK	JB 11/15/17	BNA-8270	Soil	1	1	8270D	11/15 11:35
10M66041.	AD01055-004		OK	JB 11/15/17	BNA-8270	Soil	1	1	8270D	11/15 11:57
10M66042.	AD01055-006		OK	JB 11/15/17	BNA-8270	Soil	1	1	8270D	11/15 12:19
10M66043.	AD01055-008		OK	JB 11/15/17	BNA-8270	Soil	1	1	8270D	11/15 12:41
10M66044.	AD01055-001		OK	JB 11/15/17	BNA-8270	Soil	1	1	8270D	11/15 13:03
10M66045.	SMB63406(MS)		OK SMB63406	JB 11/15/17		Soil	1	1	8270D	11/15 13:25
10M66046.	OMB63405(MS)		OK OMB63405	JB 11/15/17		OIL/OTH	1	1	8270D	11/15 13:48
10M66047.	AD01111-001(3X)(RSd		SURR CONFIRMED	JB 11/15/17	BNA-8270	Soil	6	3	8270D	11/15 14:10
10M66048.	AD01111-006(3X)(RSd		SURR CONFIRMED	JB 11/15/17	BNA-8270	Soil	6	3	8270D	11/15 14:32
10M66049.	AD01111-010(3X)(RSd		SURR CONFIRMED	JB 11/15/17	BNA-8270	Soil	12	3	8270D	11/15 14:54
10M66050.	SMB63406		OK	JB 11/16/17		Soil	1	1	8270D	11/15 15:17
10M66051.	OMB63405		OK	JB 11/16/17		OIL/OTH	1	1	8270D	11/15 15:39
10M66052.	WMB63410	C6f	OK FOR 8270 METHOD	JB 11/16/17		Aqueous	1	1	625\827	11/15 16:01
10M66053.	WMB63412	C6f	OK FOR 8270 METHOD	JB 11/16/17		Aqueous	1	1	625\827	11/15 16:23
10M66054.	AD01055-003		OK	JB 11/16/17	BNA-8270	Soil	1	1	8270D	11/15 16:46
10M66055.	AD01055-005	Ao	RR	JB 11/16/17	BNA-8270	Soil	1	1	8270D	11/15 17:08
10M66056.	AD01055-007		OK	JB 11/16/17	BNA-8270	Soil	1	1	8270D	11/15 17:30
10M66057.	AD01145-002(MS)		OK SMB63406	JB 11/16/17	BNPAH-8270	Soil	1	1	8270D	11/15 17:52
10M66058.	AD01145-002(MSD)Ao		RR	JB 11/16/17	BNPAH-8270	Soil	1	1	8270D	11/15 18:15
10M66059.	AD01145-002		OK SMB63406	JB 11/16/17	BNPAH-8270	Soil	1	1	8270D	11/15 18:37
10M66060.	AD01080-002(R)		OK	JB 11/16/17	BNA-8270	Soil	1	1	8270D	11/15 18:59
10M66061.	AD01097-009		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 19:21
10M66062.	AD01097-010		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 19:44
10M66063.	AD01097-011		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 20:06
10M66064.	AD01097-012		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 20:28
10M66065.	AD01097-013		OK	JB 11/16/17	BN-8270	Aqueous	1	1	8270D	11/15 20:50
10M66066.	AD01096-015(5X)(RSd		SURR CONFIRMED	JB 11/16/17	BN-8270	Aqueous	5	5	8270D	11/15 21:12

Anc	Area Not Checked	En	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
Ao	Area Out	Esm	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
B6m	Blank 600 series missing	Etn	Tdn/Solvent Extraction Date Missing/Not check'd	Cro	C30/C20 failed for anh
B8m	Blank 8000 series missing	Eto	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	Evnc	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	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 calmt csv for init calibration chek rls	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 sampl	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-247746

Prepared By: Hamid, Akmal
Description: BNA-Pest Mix
Prep Date: 1/5/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber:
Concentration: 5000 ppm
Final Volume: 10 ml
ApprovedBy: akmal
ApproveDate: 01/05/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
7907	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
10602	methylene chloride	10 ml	neat neat	

Veritech Lot Number: V-250672

Prepared By: Hamid, Akmal
Description: DFTPP STOCK STD.
Prep Date: 2/22/2017
Expiration Date: 2/5/2018
Department: Organics
BatchNumber:
Concentration: 2000 ppm
Final Volume: 5 ml
ApprovedBy: akmal
ApproveDate: 02/22/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
9618	DFTPP	.01 g	Neat neat	2000 ppm
9231	Dichloromethane	5 ml	NEAT neat	

Veritech Lot Number: V-251296

Prepared By: Hamid, Akmal
Description: 8270 EXTRA MIX#1(2nd Source)(DAN
Prep Date: 3/2/2017
Expiration Date: 3/2/2018
Department: Organics
BatchNumber:
Concentration: 10000 ppm
Final Volume: 25 ml
ApprovedBy: akmal
ApproveDate: 03/03/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
9403	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
9150	Benzaldehyde	.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
10750	ACETONE	25 ml	neat neat	

Veritech Lot Number: V-251297

Prepared By: Hamid, Akmal
Description: 8270 EXTRA MIX#1
Prep Date: 3/2/2017
Expiration Date: 3/2/2018
Department: Organics
BatchNumber:
Concentration: 10000 ppm
Final Volume: 10 ml
ApprovedBy: Jean
ApproveDate: 03/15/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
9403	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
9153	Acetophenone	.1 g	NEAT neat	10000 ppm
9149	Diphenyl Ether	.1 g	NEAT neat	10000 ppm
9150	Benzaldehyde	.1 g	NEAT neat	10000 ppm
10780	1,4-Dioxane	.1 g	NEAT neat	10000 ppm
10750	ACETONE	10 ml	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-260254

Prepared By: Hamid, Akmal
Description: BNA Internal Std.
Prep Date: 7/24/2017
Expiration Date: 7/24/2018
Department: Organics
BatchNumber:
Concentration: 2000 ppm
Final Volume: 250 ml
ApprovedBy: akmal
ApproveDate: 07/24/17
Checked: Yes

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
9327	Chrysene,d12	.5 g	NEAT neat	2000 ppm
9328	Perylene, d12	.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
10051	1,4-Dioxane-D8	.5 g	NEAT neat	2000 ppm
10789	methylene chloride	250 ml	neat neat	

Veritech Lot Number: V-261052

Prepared By: Bis, Yolanta
Description: DFTPP Mix
Prep Date: 8/8/2017
Expiration Date: 2/5/2018
Department: Organics
BatchNumber:
Concentration: 50 ppm
Final Volume: 2 ml
ApprovedBy: akmal
ApproveDate: 08/08/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
v-250672	DFTPP STOCK STD.	50 ul	2000 ppm	50 ppm
9619	DDT-Endrin Mix	400 ul	500 ppm	100 ppm
10493	TCL Phenol/Benzidine Mix	100 ul	2000 ppm	100 ppm
11041	Mehylene Chloride	1450 ul	neat neat	

Veritech Lot Number: V-263094

Prepared By: Bis, Yolanta
Description: Pyridine Stock Std.
Prep Date: 9/11/2017
Expiration Date: 9/11/2018
Department: Organics
BatchNumber:
Concentration: 10,000 ppm
Final Volume: 1 ml
ApprovedBy: akmal
ApproveDate: 09/13/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
9045	PYRIDINE	10 ul	NEAT neat	10000 ppm
10789	methylene chloride	990 ul	neat neat	

Veritech Lot Number: V-264390

Prepared By: Hamid, Akmal
Description: 8270 EXTRA MIX#2A
Prep Date: 9/29/2017
Expiration Date: 9/29/2018
Department: Organics
BatchNumber:
Concentration: 10000 ppm
Final Volume: 25 ml
ApprovedBy: akmal
ApproveDate: 09/29/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11044	Pyridine	.25 g	neat neat	10000 ppm
9753	Carbazole	.25 g	neat neat	10000 ppm
9726	Biphenyl	.25 g	Neat neat	10000 ppm
11201	N-Decane	.25 g	NEAT neat	10000 ppm
11200	n-Octadecane	.25 g	NEAT neat	10000 ppm
9756	Pentachloroethane	.25 g	neat neat	10000 ppm
9435	1,4-Dimethylnaphthalene	.263 g	95 %	10000 ppm
9755	Coumarin	.25 g	neat neat	10000 ppm
11164	Acetone	25 ml	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-264405

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: CLP SPK (AQ)(DANGER) | BatchNumber: | ApproveDate: 10/04/17
Prep Date: 9/29/2017 | Concentration: 2000 ppm | Checked: Yes
Expiration Date: 3/2/2018 | Final Volume: 10 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-251296	8270 EXTRA MIX#1(2nd Source)(DANGER)	2 ml	10000 ppm	2000 ppm
V-264390	8270 EXTRA MIX#2A	2 ml	10000 ppm	2000 ppm
11139	Acetone	6 ml	neat neat	

Veritech Lot Number: V-264693

Prepared By: Hamid, Akmal | Department: Organics | ApprovedBy: akmal
Description: BNA-7 MIX | BatchNumber: | ApproveDate: 10/06/17
Prep Date: 10/5/2017 | Concentration: 5000 ppm | Checked: Yes
Expiration Date: 10/5/2018 | Final Volume: 10 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
9757	3,4-Dichlorophenol	.05 g	neat neat	5000 ppm
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
11184	acetone	10 ml	neat neat	

Veritech Lot Number: V-264694

Prepared By: Hamid, Akmal | Department: Organics | ApprovedBy: akmal
Description: BNA-8 MIX | BatchNumber: | ApproveDate: 10/06/17
Prep Date: 10/5/2017 | Concentration: 5000 ppm | Checked: Yes
Expiration Date: 10/5/2018 | Final Volume: 10 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
7460	2,3,4,6,-Tetrachlorophenol	.05 g	Neat neat	5000 ppm
9757	3,4-Dichlorophenol	.05 g	neat neat	5000 ppm
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
11184	acetone	10 ml	neat neat	

Veritech Lot Number: V-264805

Prepared By: Hamid, Akmal | Department: Organics | ApprovedBy: akmal
Description: BNA Surrog.Std. | BatchNumber: | ApproveDate: 10/06/17
Prep Date: 10/6/2017 | Concentration: 1000-2000 pp | Checked: Yes
Expiration Date: 10/6/2018 | 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
8748	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
11184	acetone	1000 ml	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-265004

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA STOCK Std.A (DANGER) | BatchNumber: | ApproveDate: 10/11/17
Prep Date: 10/10/2017 | Concentration: 250 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 1.2 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11084	8270 MegaMix	300 ul	1000 ppm	250 ppm
11085	Benzoic Acid	150 ul	2000 ppm	250 ppm
10923	TCL Benzidines Mix	150 ul	2000 ppm	250 ppm
V-264805	BNA Surrog.Std.	150 ul	1000-2000 pp	125-250 pp
V-247746	BNA-Pest Mix	60 ul	5000 ppm	250 ppm
V-264693	BNA-7 MIX	60 ul	5000 ppm	250 ppm
10789	methylene chloride	330 ul	neat neat	

Veritech Lot Number: V-265137

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA STOCK Std.(DANGER) | BatchNumber: | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 200 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 500 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-251297	8270 EXTRA MIX#1	10 ul	10000 ppm	250 ppm
V-265004	BNA STOCK Std.A (DANGER)	400 ul	250 ppm	250 ppm
10789	methylene chloride	90 ul	neat neat	

Veritech Lot Number: V-265138

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 10 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 10 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	5 ul	200 ppm	10 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	93 ul	neat neat	

Veritech Lot Number: V-265139

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 20 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 20 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	10 ul	200 ppm	20 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	88 ul	neat neat	

Veritech Lot Number: V-265140

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 50 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 50 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 600 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	150 ul	200 ppm	50 ppm
V-260254	BNA Internal Std.	12 ul	2000 ppm	40 ppm
10789	methylene chloride	438 ul	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-265141

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 80 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 80 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	40 ul	200 ppm	80 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	58 ul	neat neat	

Veritech Lot Number: V-265142

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 120 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 120 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	60 ul	200 ppm	120 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	38 ul	neat neat	

Veritech Lot Number: V-265143

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 160 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 160 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	80 ul	200 ppm	160 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	18 ul	neat neat	

Veritech Lot Number: V-265144

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 196 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 196 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	98 ul	200 ppm	196 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	0	neat neat	

Veritech Lot Number: V-265145

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 50 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 50 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265137	BNA STOCK Std.(DANGER)	25 ul	200 ppm	50 ppm
10789	methylene chloride	75 ul	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-265146

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 2 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 2 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265145	BNA 50 ppm curve(DANGER)	4 ul	50 ppm	2 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	94 ul	neat neat	

Veritech Lot Number: V-265147

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA 0.5 ppm curve(DANGER) | BatchNumber: B-23832 | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 0.5 ppm | Checked: Yes
Expiration Date: 1/5/2018 | Final Volume: 100 ul

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265145	BNA 50 ppm curve(DANGER)	1 ul	50 ppm	2 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	97 ul	neat neat	

Veritech Lot Number: V-265148

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA STOCK Std.B(DANGER) | BatchNumber: | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 250 ppm | Checked: Yes
Expiration Date: 4/11/2018 | Final Volume: 1.2 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
10705	TCL PAH MIX	150 ul	2000 ppm	250 ppm
10706	TCL PHENOLS/BENZIDINE MIX	150 ul	2000 ppm	250 ppm
10707	TCL Hazardous Substances Mix	150 ul	2000 ppm	250 ppm
10708	TCL Base-Neutral Mix	150 ul	2000 ppm	250 ppm
V-264805	BNA Surrog.Std.	150 ul	1000-2000 pp	125-250 pp
V-263094	Pyridine Stock Std.	30 ul	10,000 ppm	250 ppm
V-264694	BNA-8 MIX	60 ul	5000 ppm	250 ppm
10789	methylene chloride	360 ul	neat neat	

Veritech Lot Number: V-265149

Prepared By: Bis, Yolanta | Department: Organics | ApprovedBy: akmal
Description: BNA ICV CAL@50ppm(DANGER) | BatchNumber: | ApproveDate: 10/13/17
Prep Date: 10/11/2017 | Concentration: 50 ppm | Checked: Yes
Expiration Date: 3/2/2018 | Final Volume: 0.2 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265148	BNA STOCK Std.B(DANGER)	40 ul	250 ppm	50 ppm
V-251296	8270 EXTRA MIX#1(2nd Source)(DANGER)	1 ul	10000 ppm	50 ppm
V-260254	BNA Internal Std.	4 ul	2000 ppm	40 ppm
10789	methylene chloride	155 ul	neat neat	

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-265642

Prepared By: Bis, Yolanta
Description: BNA STOCK Std.(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber:
Concentration: 200 ppm
Final Volume: 500 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-251297	8270 EXTRA MIX#1	10 ul	10000 ppm	250 ppm
V-265004	BNA STOCK Std.A (DANGER)	400 ul	250 ppm	250 ppm
10789	methylene chloride	90 ul	neat neat	

Veritech Lot Number: V-265643

Prepared By: Bis, Yolanta
Description: BNA 10 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 10 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	5 ul	200 ppm	10 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	93 ul	neat neat	

Veritech Lot Number: V-265644

Prepared By: Bis, Yolanta
Description: BNA 20 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 20 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	10 ul	200 ppm	20 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	88 ul	neat neat	

Veritech Lot Number: V-265645

Prepared By: Bis, Yolanta
Description: BNA 50 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 50 ppm
Final Volume: 600 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	150 ul	200 ppm	50 ppm
V-260254	BNA Internal Std.	12 ul	2000 ppm	40 ppm
10789	methylene chloride	438 ul	neat neat	

Veritech Lot Number: V-265646

Prepared By: Bis, Yolanta
Description: BNA 80 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 80 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	40 ul	200 ppm	80 ppm
V-260254	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-265647

Prepared By: Bis, Yolanta
Description: BNA 120 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 120 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	60 ul	200 ppm	120 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	38 ul	neat neat	

Veritech Lot Number: V-265648

Prepared By: Bis, Yolanta
Description: BNA 160 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 160 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	80 ul	200 ppm	160 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	18 ul	neat neat	

Veritech Lot Number: V-265649

Prepared By: Bis, Yolanta
Description: BNA 196 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 196 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	98 ul	200 ppm	196 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	0	neat neat	

Veritech Lot Number: V-265650

Prepared By: Bis, Yolanta
Description: BNA 50 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 50 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265642	BNA STOCK Std.(DANGER)	25 ul	200 ppm	50 ppm
10789	methylene chloride	75 ul	neat neat	

Veritech Lot Number: V-265651

Prepared By: Bis, Yolanta
Description: BNA 2 ppm curve(DANGER)
Prep Date: 10/19/2017
Expiration Date: 1/5/2018
Department: Organics
BatchNumber: B-23869
Concentration: 2 ppm
Final Volume: 100 ul
ApprovedBy: akmal
ApproveDate: 10/24/17
Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265650	BNA 50 ppm curve(DANGER)	4 ul	50 ppm	2 ppm
V-260254	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-265652

Prepared By:	Bis, Yolanta	Department: Organics	ApprovedBy: akmal
Description:	BNA 0.5 ppm curve(DANGER)	BatchNumber: B-23869	ApproveDate: 10/24/17
Prep Date:	10/19/2017	Concentration: 0.5 ppm	Checked: Yes
Expiration Date:	1/5/2018	Final Volume: 100 ul	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-265650	BNA 50 ppm curve(DANGER)	1 ul	50 ppm	2 ppm
V-260254	BNA Internal Std.	2 ul	2000 ppm	40 ppm
10789	methylene chloride	97 ul	neat neat	

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6948

Description	ApprovedBy: akmal ApproveDate: 04/23/12 Checked: Yes
1,4-Dichlorobenzene(D4)	

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: 7460

Description	ApprovedBy: akmal ApproveDate: 11/11/12 Checked: Yes
2,3,4,6,-Tetrachlorophenol	

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Chem Service	N-10599-50MG	973100	11/09/12	11/30/18	Hamid, Akmal	10	50mg	Neat	Neat

Veritech Control/Receipt Number: 7755

Description	ApprovedBy: jean ApproveDate: 03/11/13 Checked: Yes
2-Fluorobiphenyl	

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: 7907

Description	ApprovedBy: akmal ApproveDate: 05/22/13 Checked: Yes
4,4'-DDD	

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ChemService	N-10874-250MG	1520000	05/22/13	08/30/18	Hamid, Akmal	4	250m	neat	neat

Veritech Control/Receipt Number: 7908

Description	ApprovedBy: akmal ApproveDate: 05/22/13 Checked: Yes
4,4'-DDE	

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	ApprovedBy: akmal ApproveDate: 06/10/14 Checked: Yes
Nitrobenzene-d5	

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	ApprovedBy: akmal ApproveDate: 06/10/14 Checked: Yes
2-Fluorophenol	

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 Standard Receipt Log

Veritech Control/Receipt Number: 8748

Description
p-Terphenyl-d14

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	364630-500mg	EB2136V	06/10/14	03/17/25	Hamid, Akmal	3	500m	Neat	Neat

Veritech Control/Receipt Number: 9045

Description
PYRIDINE

ApprovedBy: aurora
ApproveDate: 03/11/15
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
FISHER	P368-1	140622	10/31/14	04/30/19	Wonge, Janee	2	1 L	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 Control/Receipt Number: 9153

Description
Acetophenone

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:
Fluka	42163-1ML-F	BCBH9875V	12/15/14	12/31/25	Hamid, Akmal	1	1ML	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: 9231

Description
Dichloromethane

ApprovedBy: akmal
ApproveDate: 02/05/15
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
EMD	DX0837-1	54052	02/05/15	02/05/18	Hamid, Akmal	1	4L	NEAT	NEAT

Veritech Standard Receipt Log

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: 9327

Description
Chrysene,d12

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	DLI261-1	PR24875	03/11/15	05/09/23	Hamid, Akmal	2	1G	NEAT	NEAT

Veritech Control/Receipt Number: 9328

Description
Perylene, d12

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-366-1	PR-24113	03/11/15	10/10/22	Hamid, Akmal	1	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	IG	NEAT	NEAT

Veritech Control/Receipt Number: 9403

Description
CAPROLACTUM

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	N11397-1G	3232400	04/14/15	10/31/20	Hamid, Akmal	1	1G	NEAT	NEAT

Veritech Standard Receipt Log

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 Control/Receipt Number: 9618

Description
DFTPP

ApprovedBy: akmal
ApproveDate: 07/29/15
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	44-2543	LC13253V	07/29/15	03/31/18	Hamid, Akmal	1	100m	Neat	Neat

Veritech Control/Receipt Number: 9619

Description
DDT-Endrin Mix

ApprovedBy: akmal
ApproveDate: 07/29/15
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	48282	XA12639V	07/29/15	03/31/18	Hamid, Akmal	2	1ml	500	ppm

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: 9753

Description
Carbazole

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-11403-1G	4417700	10/16/15	10/31/20	Hamid, Akmal	1	1g	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 Standard Receipt Log

Veritech Control/Receipt Number: 9757

Description
3,4-Dichlorophenol

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	N10766-1G	3407700	10/16/15	12/31/21	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: 10051

Description
1,4-Dioxane-D8

ApprovedBy: jean
ApproveDate: 03/11/16
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CIL	DLM-28-5	I-19239A	03/10/16	03/10/30	Hamid, Akmal	1	5G	NEAT	NEAT

Veritech Control/Receipt Number: 10493

Description
TCL Phenol/Benzidine Mix

ApprovedBy: akmal
ApproveDate: 10/19/16
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	47992-U	XA14572V	10/19/16	06/30/18	Hamid, Akmal	1	1ml	2000	PPM

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 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: 10602

Description
methylene chloride

ApprovedBy: akmal
ApproveDate: 12/28/16
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9364-03	157298	12/15/16	01/05/18	Lopez, Jose	4	4L	neat	neat

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 10705

Description
TCL PAH MIX

ApprovedBy: akmal
ApproveDate: 01/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	CRM48905	XA21530V	01/17/17	06/30/19	Hamid, Akmal	2	1ML	2000	PPM

Veritech Control/Receipt Number: 10706

Description
TCL PHENOLS/BENZIDINE MIX

ApprovedBy: akmal
ApproveDate: 01/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	47992-U	XA14572V	01/17/17	06/30/18	Hamid, Akmal	2	1ML	2000	PPM

Veritech Control/Receipt Number: 10707

Description
TCL Hazardous Substances Mix

ApprovedBy: akmal
ApproveDate: 01/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	47990-U	XA14035V	01/17/17	05/31/18	Hamid, Akmal	2	1	2000	PPM

Veritech Control/Receipt Number: 10708

Description
TCL Base-Neutral Mix

ApprovedBy: akmal
ApproveDate: 01/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	47991-U	XA14793V	01/17/17	06/30/18	Hamid, Akmal	1	1ML	2000	PPM

Veritech Control/Receipt Number: 10750

Description
ACETONE

ApprovedBy: akmal
ApproveDate: 02/22/17
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	164214	02/14/17	01/13/20	Burwell, John	25	4 L	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 Standard Receipt Log

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: 10923

Description
TCL Benzidines Mix

ApprovedBy: akmal
ApproveDate: 05/02/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	48906	XA14364V	05/02/17	05/31/18	Hamid, Akmal	1	1ML	2000	PPM

Veritech Control/Receipt Number: 11041

Description
Mehylene Chloride

ApprovedBy: akmal
ApproveDate: 07/17/17
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	166495	07/05/17	05/10/18	Lopez, Jose	80	4L	neat	neat

Veritech Control/Receipt Number: 11044

Description
Pyridine

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:
Fisher	P368-1	170503	06/30/17	08/31/21	Wonge, Janee	2	1 L	neat	neat

Veritech Control/Receipt Number: 11084

Description
8270 MegaMix

ApprovedBy: akmal
ApproveDate: 07/18/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Restek	31850	A0124078	07/18/17	07/31/18	Hamid, Akmal	2	1ML	1000	PPM

Veritech Control/Receipt Number: 11085

Description
Benzoic Acid

ApprovedBy: akmal
ApproveDate: 07/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Supelco	CRM47508	XA20010V	07/18/17	04/30/19	Hamid, Akmal	2	1ML	2000	PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11139

Description
Acetone

ApprovedBy: akmal
ApproveDate: 08/30/17
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	170015	08/29/17	01/30/20	Lopez, Jose	16	4L	neat	neat

Veritech Control/Receipt Number: 11164

Description
Acetone

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:
J.T.Baker	9254-03	170015	09/12/17	01/30/20	Lopez, Jose	16	4L	neat	neat

Veritech Control/Receipt Number: 11184

Description
acetone

ApprovedBy: akmal
ApproveDate: 09/26/17
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	09/26/17	05/08/20	Burwell, John	20	4 L	neat	neat

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 Standard Receipt Log

Veritech Control/Receipt Number: 11070

Description
Compos.Mix#1(Toxic Subs.Mix #2)

ApprovedBy: akmal
ApproveDate: 07/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
AccuStandard	Z-014E-PAK	217021030	07/14/17	03/01/19	Hamid, Akmal	15	1ML	2.0	MG/ML

Veritech Control/Receipt Number: 11071

Description
Acid composite Mixture

ApprovedBy: akmal
ApproveDate: 07/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
AccuStandard	CLP-HC-A-R-PAK	217011100	07/14/17	01/19/20	Hamid, Akmal	15	1ML	2	MG/ML

Veritech Control/Receipt Number: 11074

Description
Base/Neutral Composite Mix

ApprovedBy: akmal
ApproveDate: 07/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
AccuStandard	CLP-HC-BN-PAK	217031389	07/14/17	05/06/18	Hamid, Akmal	15	1ML	2.0	MG/ML

Veritech Control/Receipt Number: 11240

Description
Methylene Chloride

ApprovedBy: jean
ApproveDate: 10/24/17
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	166495	10/24/17	05/10/18	Lopez, Jose	60	4L	neat	neat

Veritech Control/Receipt Number: 11266

Description
Sodium Sulfate

ApprovedBy: akmal
ApproveDate: 11/08/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Seidler	SC-3375-1C	631104	11/07/17	11/06/22	Lopez, Jose	2	100L	neat	neat

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