First Half 2017
Semi-Annual Groundwater Monitoring Report
Patchogue Former MGP Site
NYSDEC Site No. 1-52-182
Village of Patchogue, Suffolk County, New York

Prepared for

National Grid USA

Hicksville, New York

August 2017

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Project Number: 149322.750.004

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Section 1

Introduction

This Semi-Annual Groundwater Monitoring Report documents the implementation and summarizes the results of the groundwater monitoring activities conducted during the first half of 2017 at the Patchogue Former Manufactured Gas Plant (MGP) Site (hereinafter referred to as the "Site"). The groundwater monitoring activities included the performance of the water level measurements, non-aqueous phase liquid (NAPL) gauging and groundwater sampling activities.

The groundwater monitoring event and the preparation of this report are part of the routine groundwater monitoring program being conducted at the Site. This report has been prepared for submittal to the New York State Department of Environmental Conservation (NYSDEC) and includes the following:

- Description of the scope of the field activities, methods and procedures;
- Table summarizing the results of the water level measurements and the gauging of the monitoring wells and piezometers for the presence of NAPL (see Table 1);
- Table summarizing the analytical results for the groundwater samples obtained during the first half 2017 monitoring event including a comparison to the applicable groundwater quality criteria (see Table 2);
- Comparison of data from this monitoring period to data from historical monitoring events (Tables 3 and 4);
- Discussion of the results and findings from the groundwater monitoring data;
- A water table elevation contour map depicting the generalized direction of groundwater flow based on groundwater elevation data obtained from monitoring wells and piezometers, as well as surface water elevation data obtained from staff gauges installed in the Patchogue River (Figure 1);
- Field Sampling Data Sheets (Appendix A);
- Laboratory Data Report (Appendix B);
- Data Usability Summary Report (Appendix C); and
- Electronic Data Deliverable (Appendix D).

1.1 Background

Groundwater monitoring events have been conducted at the Site since March 2008 including two monitoring events conducted as part of the remedial investigation (RI) in March 2008 and July 2008. The groundwater monitoring event conducted in June 2017 is the subject of this report. The results of previous monitoring events have had, in general, consistent concentrations and areal distribution of constituents in groundwater. Prior to the March 2010 groundwater monitoring event, site-related dissolved phase constituents [e.g., benzene, toluene, ethylbenzene, isomers of xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs)] were detected at concentrations above the Class GA groundwater quality criteria [i.e., standards from the 6 NYCRR Part 703 Standards and guidance values from the Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1] in a limited area near the center of the Site. These elevated concentrations did not extend downgradient to the wells closer to the Patchogue River. However, during the March 2010 and September 2010 monitoring events, detections of BTEX and PAH compounds were more widely distributed than during previous events. It was surmised that this change was the result of a temporary dewatering operation at a

construction project conducted by the Village of Patchogue at their wastewater treatment facility (WWTF) directly across the river from the Site. Based on the understanding of Site conditions, it was anticipated that when the dewatering operations had ceased, concentrations in groundwater would re-equilibrate with steady-state (i.e., pre-dewatering) groundwater flow conditions, and eventually return to levels similar to those prior to dewatering. To confirm this, National Grid increased the frequency of the groundwater monitoring from semi-annually to quarterly. The subsequent six quarterly monitoring events documented the return of groundwater flow and groundwater quality to conditions consistent with those prior to the dewatering operations.

Based on this finding, in a May 24, 2012 email, National Grid proposed to the NYSDEC that the frequency of groundwater sampling and analysis return to a semi-annual basis with the schedule for water level monitoring and NAPL gauging remaining on a quarterly basis. NYSDEC agreed with this proposal. Collection of NAPL gauging and water level data remained on a quarterly schedule to provide additional water level data from the piezometers that had been installed in the first half of 2012 in support of the Pre-Remedial Design Investigation. Subsequently, in an October 8, 2013 letter to the NYSDEC, National Grid proposed that that the frequency of all components of the groundwater monitoring program (i.e., water level measurements, NAPL gauging and groundwater sampling) be returned to the semi-annual schedule. This proposal was made because the data from the water level measurements and NAPL gauging, including data from the newer piezometers, continued to indicate very consistent findings from quarter to quarter and confirmed the understanding of groundwater flow conditions and NAPL occurrence at the Site. The NYSDEC concurred with this proposal in a December 9, 2013 email.

Section 2

Scope of Work

Field activities for the first half 2017 groundwater monitoring were conducted by Brown and Caldwell Associates (BC) on June 13 and 14, 2017. The activities conducted during this monitoring event are described below. Locations of the monitoring wells, piezometers and staff gauges referenced below are depicted on Figure 1.

Prior to groundwater sampling, water level measurements and NAPL gauging was performed in the piezometers and monitoring wells associated with the Site. The level of the Patchogue River was measured at the two staff gauges. Water level measurements and NAPL gauging were conducted using an electronic oil/water interface probe, and measurements were made to the nearest 0.01 foot. At the locations where NAPL was detected using the oil/water interface probe, a 3-foot long threaded rod attached to a nylon mason line was lowered into the monitoring well or piezometer to confirm the presence of the NAPL. The threaded rod was lowered to the bottom of the monitoring well to measure the approximate thickness of the NAPL accumulation.

Groundwater sampling was conducted at ten monitoring wells following the water level and NAPL gauging activities. Piezometers installed during the 2012 pre-remedial design activities are not included in the current sampling program for the Site; these were installed to facilitate the collection hydraulic data in the fill and the outwash deposits underlying the Site. Monitoring wells MW-5 and MW-6 were not sampled during this monitoring period due to the presence of NAPL in these wells. The presence of NAPL in these wells is consistent with observations during previous gauging activities. The standard protocol is that if NAPL is observed in a well during gauging or sampling, groundwater samples are not submitted for laboratory analyses. Groundwater sampling was conducted using low flow purging and sampling techniques in accordance with the United States Environmental Protection Agency (USEPA) protocol (USEPA, July 1996, Revised January 2010). Samples were submitted to Aqua Pro-Tech Laboratories (APL) located in Fairfield, New Jersey. APL is certified (Certification No. 11634) through the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

The groundwater samples were analyzed for: BTEX compounds and methyl tertiary-butyl ether (MTBE) using USEPA SW-846 Method 8260B; and, PAHs using USEPA SW-846 Method 8270C. The groundwater samples were also analyzed in the field for pH, specific conductivity, temperature, turbidity, oxidation-reduction potential (ORP), and dissolved oxygen (see Appendix A for field data sheets).

The laboratory report from APL is provided in Appendix B. Laboratory analytical data were provided to BC in electronic form by APL and have been incorporated into the environmental database maintained by BC for the Site.

In addition to the samples described above, quality assurance/quality control (QA/QC) samples were also collected. The QA/QC samples included: trip blanks (one per cooler containing samples for BTEX and MTBE analysis), a field duplicate, and an equipment blank. Also, extra sample volume was collected from one location to provide for matrix spike/matrix spike duplicate (MS/MSD) analysis. The trip blank sample was analyzed for BTEX and MTBE only. The other QA/QC samples were analyzed for BTEX, MTBE, and PAHs.

Laboratory results for the groundwater sample analyses were forwarded to a data validator, Environmental Data Services, Inc. of Newport News, Virginia, for review and preparation of a Data Usability Summary Report (DUSR). The DUSR presents a summary of data usability including a discussion of qualified data. The DUSR is provided as Appendix C. As described in the DUSR, the data were considered by the validator to be valid and usable. An Electronic Data Deliverable (EDD) of the validated analytical data, prepared in accordance with NYSDEC requirements, is provided in Appendix D.

Section 3

Results and Findings

3.1 Water Level Data

Table 1 provides the water level data and calculated water elevations from the June 13, 2017 measurements. Figure 1 illustrates the elevation contours of the water table based on these data. The contours were developed using water level elevation data from the shallow monitoring wells and shallow piezometers at the Site (i.e., those with screens that straddle, or are just below, the water table) and the two surface water staff gauges in the Patchogue River. The water level elevations used for contouring are representative of water table elevations at the Site. The groundwater elevation (hydraulic head) values for the wells and piezometers screened in deeper intervals are also depicted for reference on Figure 1. The water table is relatively shallow and is typically positioned in the fill that overlies the native alluvial deposits and outwash deposits. The water table contours indicate that lateral groundwater flow is from northwest to southeast across the Site toward the Patchogue River. Comparisons of the groundwater elevations in the monitoring wells to the river elevation, as measured at the staff gauges, demonstrate that groundwater elevations are higher than the river level indicating that groundwater is discharging to the Patchogue River. The upward vertical hydraulic gradient measured at well pairs adjacent to the river (well pairs MW-4S and MW-4D, and MW-9S and MW-9D) is indicative of a discharge area and provides further support to the conclusion that groundwater is discharging to the Patchogue River. The general configuration of the water table contours, developed using the June 13, 2017 data, and the interpreted groundwater flow patterns are consistent with those from previous rounds of water level measurements with one exception. The exception occurred during the March 2010 sampling event when the large-scale dewatering activities were being conducted on the WWTF site located east of the Site on the opposite side of the river (see discussion in Section 1.1). Operation of this dewatering system temporarily altered groundwater flow patterns and levels at the Site (see "Groundwater Monitoring Report, Second Semiannual 2010 Sampling Event" [GEI, November 2010]).

3.2 NAPL Gauging

Table 1 presents the results of the NAPL gauging conducted in the monitoring wells and piezometers associated with the Site during the June 2017 groundwater monitoring event. NAPL was identified in the following wells during the gauging activities:

- **MW-5:** Brown viscous NAPL with a strong mothball-like odor on the lower 0.3 feet of the threaded rod.
- **MW-6:** Sporadic NAPL blebs observed on measuring tape for oil/water interface probe; moderate mothball-like odor.
- **PZ-3A:** Black silt with a slight mothball-like odor on the lower 0.5 feet of the threaded rod; sporadic sheen/NAPL blebs throughout the silt.

NAPL has been observed in MW-5, MW-6, and PZ-3A during previous gauging events.

3.3 Groundwater Quality Data

Table 2 provides the results of the laboratory analyses of the groundwater samples collected during the June 2017 monitoring event and a comparison of the data to the New York State Class GA groundwater quality criteria. Comparisons of total BTEX and total PAH concentrations from this sampling event to previous sampling events are provided as Tables 3 and 4, respectively.

As previously stated, NAPL was identified in two of the 12 monitoring wells (MW-5 and MW-6) associated with the Site. These two wells are located in the central part of the Site in the area of former MGP operations (refer to Figure 1). As discussed in Section 2, because they contained NAPL, groundwater samples were not collected from MW-5 and MW-6. Groundwater samples were collected from the remaining ten monitoring wells and submitted to the laboratory for analysis.

The constituent concentrations in groundwater samples collected during the June 2017 monitoring event were consistent with those measured during previous monitoring events. No MTBE or BTEX compounds were detected at any of the ten monitoring wells sampled during the June 2017 monitoring event. PAH compounds were either not detected or were detected at concentrations below the Class GA groundwater quality criteria at all ten monitoring wells sampled during the June 2017 monitoring event.

Section 4

Summary and Conclusions

As noted in previous monitoring events, NAPL was identified in monitoring wells MW-5 and MW-6, and in piezometer PZ-3A, during the June 2017 event. MW-5, MW-6, and PZ-3A are located in the center of the Site in the area of former MGP operations where NAPL has been identified in the soil.

No MTBE or BTEX compounds were detected in groundwater samples from the ten monitoring wells sampled during the June 2017 monitoring event.

PAH compounds were either not detected or were detected at concentrations below the Class GA groundwater quality criteria in groundwater samples from the ten monitoring wells sampled during the June 2017 monitoring event. Monitoring will continue on a semi-annual basis in order to confirm these conditions continue to exist.

Section 5

References

Brown and Caldwell Associates, December 2012, Construction Completion Report Utility Corridor Work Plan Implementation, Patchogue Former MGP Site, Village of Patchogue, Suffolk County, New York, Site ID No. 1-52-182.

GEI, November 2010. Groundwater Monitoring Report, Second Semiannual 2010 Sampling Event, Patchogue Former MGP Site, Town of Brookhaven, Suffolk County, Long Island, New York, Site ID No. 1-52-182.

USEPA, July 1996; Revised January 2010. Low-Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells.

Tables

TABLE 1
WATER ELEVATIONS AND NAPL MONITORING DATA
FIRST HALF 2017 SEMI-ANNUAL GROUNDWATER MONITORING EVENT
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

		6/13/2017				
Location ID	Top of Casing Elevation [(a)] (ft., NAVD)	Depth to Water (ft., BTOC)	Water Elevation (ft., NAVD)	Depth to NAPL (ft., BTOC)	Total Depth of Well (ft., BGS)	Remarks
MW-1	11.47	5.94	5.53	NI	15.20	
MW-3	5.56	2.41	3.15	NI	10.40	
MW-4S	7.97	5.15	2.82	NI	12.25	
MW-4D	7.79	4.90	2.89	NI	26.65	
MW-5	8.66	4.72	3.94	16.22	16.52	Brown viscous NAPL with a strong mothball-like odor on the lower 0.3 ft. of the threaded rod. PID: 8.9 ppm at top of PVC well casing.
MW-6	5.03	0.65	4.38	NI	18.45	Sporadic NAPL blebs observed on measuring tape for oil/water interface probe; moderate mothball-like odor. Soft bottom.
MW-7S	8.45	4.58	3.87	NI	12.42	
MW-7D	8.31	4.41	3.90	NI	28.14	
MW-8S	5.08	0.89	4.19	NI	9.90	
MW-8D	4.98	0.82	4.16	NI	25.10	
MW-9S	4.47	1.61	2.86	NI	10.24	
MW-9D	4.66	1.53	3.13	NI	22.95	
PZ-1A	8.05	3.71	4.34	NI	10.00	
PZ-1B	8.91	4.62	4.29	NI	22.45	
PZ-2A	8.77	4.53	4.24	NI	8.05	
PZ-2B	8.29	4.00	4.29	NI	18.00	Moderate mothball-like odor upon removal of piezometer cap.
PZ-3A	8.78	5.07	3.71	8.45	8.95	Black silt with a slight mothball-like odor on the lower 0.5 ft. of the threaded rod; sporadic sheen/NAPL blebs throughout the silt.
PZ-3B	8.90	5.25	3.65	NI	21.23	
PZ-4A	4.79	1.83	2.96	NI	4.90	
SG-1	5.23	4.03	1.20	NI	NA	
SG-2	5.17	3.83	1.34	NI	NA	

Notes:
NAVD - North American Vertical Datum 1988
ft. - Feet
ppm - parts per million
BGS - Below Ground Surface
BTOC - Below Top of Casing
NAPL - Non-Aqueous Phase Liquid
PID - Photoionization Detector
PVC - Polyvinyl chloride
NA - Not Applicable
NI - NAPL Not Indicated by Oil/Water Interface Probe
MW - monitoring well
PZ - piezometer
SG - staff gauge
(a) - Monitoring wells resurveyed on 7/3/12 following utility corridor construction activities. See "Construction Completion Report, Utility Corridor Work Plan Implementation (Brown and Caldwell, December 2012)". Above ground casing at MW-5 was lowered during utility corridor construction activities and was resurveyed in September 2015.

TABLE 2
GROUNDWATER ANALYSIS RESULTS
FIRST HALF 2017 SEMI-ANNUAL GROUNDWATER MONITORING EVENT
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

Constituent	Class GA Groundwater Criteria TOGS 1.1.1 Guidance	NYS Part 703 Standard	Units	Loc ID Date	MW-1 6/13/2017	MW-1 DUP 6/13/2017	MW-3 6/14/2017	MW-4D 6/14/2017	MW-4S 6/14/2017	MW-7D 6/13/2017	MW-7S 6/13/2017	MW-8D 6/13/2017	MW-8S 6/13/2017	MW-9D 6/14/2017	MW-9S 6/14/2017
Volatile Organic Compounds (VOCs)															
BTEX Compounds															
Benzene	NE	1	µg/L		0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U	0.129 U
Toluene	NE	5	µg/L		0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U	0.205 U
Ethylbenzene	NE	5	µg/L		0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U
m&p-Xylenes	NE	5	µg/L		0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U
o-Xylene	NE	5	µg/L		0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U
Xylenes, Total	NE	NE	µg/L		0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U	0.244 U
Total BTEX[(a)]	NE	NE	µg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other VOCs															
Methyl Tertiary Butyl Ether	10	NE	µg/L		0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U	0.596 U
Semi-Volatile Organic Compounds (SVOCs)															
Polycyclic Aromatic Hydrocarbons (PAHs)															
Acenaphthene	20	NE	µg/L		0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	0.613 U	1 J
Acenaphthylene	NE	NE	µg/L		0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U	0.271 U
Anthracene	50	NE	µg/L		0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U	0.319 U
Benzo(a)anthracene	0.002	NE	µg/L		0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U
Benzo(a)pyrene	NE	0	µg/L		0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U	0.351 U
Benzo(b)fluoranthene	0.002	NE	µg/L		0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U	0.423 U
Benzo(g,h,i)perylene	NE	NE	µg/L		0.495 U	0.495 U	0.495 U	0.495 U	0.495 U	0.495 U	0.495 UJ	0.495 U	0.495 U	0.495 U	0.495 U
Benzo(k)fluoranthene	0.002	NE	µg/L		0.433 U	0.433 U	0.433 U	0.433 U	0.433 U	0.433 U	0.433 UJ	0.433 U	0.433 U	0.433 U	0.433 U
Chrysene	0.002	NE	µg/L		0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U	0.431 U
Dibenzo(a,h)anthracene	NE	NE	µg/L		0.401 U	0.401 U	0.401 U	0.401 U	0.401 U	0.401 U	0.401 UJ	0.401 U	0.401 U	0.401 U	0.401 U
Fluoranthene	50	NE	µg/L		0.301 U	0.301 U	0.918 J	0.301 U	0.301 U	0.301 U	0.301 U	0.301 U	0.301 U	0.301 U	0.917 J
Fluorene	50	NE	µg/L		0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U
Indeno(1,2,3-cd)pyrene	0.002	NE	µg/L		0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 U	0.429 UJ	0.429 U	0.429 U	0.429 U	0.429 U
Naphthalene	10	NE	µg/L		0.542 U	0.542 U	0.542 U	0.542 U	0.542 U	0.542 U	1.00 J	0.542 U	0.542 U	0.542 U	0.542 U
Phenanthrene	50	NE	µg/L		0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U	0.462 U
Pyrene	50	NE	µg/L		0.371 U	0.371 U	1.06 J	0.371 U	0.507 J	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	1.31 J
Total PAHs[(b)]	NE	NE	µg/L		ND	ND	1.98 J	ND	0.507 J	ND	1.00 J	ND	ND	ND	3.23 J

Notes:
BTEX - benzene, toluene, ethylbenzene and isomers of xylene.
U - The analyte was analyzed for, but was not detected above the sample reporting limit. Value shown is representative of method detection limit for the analyzed constituent.
J - Estimated concentration. The result is below the reporting limit but above the method detection limit.
UJ - The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
µg/L - micrograms per liter
ND - Not detected.
NE - Not established.
(a) - To calculate total BTEX concentration, a value of zero is used for non-detect values.
(b) - To calculate total PAH concentration, a value of zero is used for non-detect values.

Boxed concentrations are above New York State Class GA Groundwater Quality Criteria (Standards or Guidance values).
No concentrations were above these criteria in samples collected in June 2017.

TABLE 3
SUMMARY OF HISTORICAL BTEX CONCENTRATIONS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

Sampling Date	Total BTEX Concentrations (µg/L) [a]														
	Monitoring Well/Piezometer														
	MW-1	MW-2S	MW-2D	MW-3	MW-4S	MW-4D	MW-5	MW-6	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	PZ-4A
Mar-08	0	0	0	0	3.4	0	1016	57	NS	NS	NS	NS	NS	NS	NI
Jul-08	NS	0	0	0	0	0	678	0	0	0	0	0	0	0	NI
Mar-09	0	0	0	0	0	0	975	0	0	1	0	0	0	0	NI
Sep-09	0	0	0	0	0	0	1257	1	0	0	0	0	0	0	NI
Mar-10	0	0	0	0	0	0	637	2	0	9	0	0	0	0	NI
Sep-10	0	0	0	0	0	0	NS	0	0	0	0	0	27	0	NI
Jan-11	1.7	0	0	0	0	0	NS	NS	0	0	0	0	1	0	NI
Apr-11	0	0	0	0	0	0	NS	NS	0	0	0	0	0	0	NI
Aug-11	0	0	0	0	0	0	NS	NS	0	0	0	0	0	0	NI
Nov-11	0	0	0	0	0	0	NS	NS	0	0	0	0	0	0	NI
Feb-12	0	0	0	0	0	0	NS	NS	0	0	0	0	0	0	NI
May-12	0	0	0	0	0	0	NS	NS	0	0	0	0	0	0	NI
Nov-12	0	-- [b]	-- [a]	0	12	0	NS	NS	1	0	0	0	NS	NS	NI
Jun-13	0	-- [b]	-- [b]	0	0.8	0	NS	NS	0.7	0	0	0	0	NS	NI
Dec-13	0	-- [b]	-- [b]	NS	0	0	NS	NS	0.8	0	0	0	NS	NS	NI
Jun-14	0	-- [b]	-- [b]	0	0	0	NS	NS	0.8	0	0	0	NS	NS	0
Dec-14	0	-- [b]	-- [b]	0	0	0	NS	NS	1.3	0	0	0	0	0	NS
Jun-15	0	-- [b]	-- [b]	0	0	0	NS	NS	0	0	0	0	0	0	NS
Dec-15	0	-- [b]	-- [b]	0	0	0	NS	NS	0.5	0	0	0	0	0	NS
Jun-16	0	-- [b]	-- [b]	0	0	0	NS	NS	0	0	0	0	0	0	NS
Dec-16	0	-- [b]	-- [b]	0	0	0	NS	NS	0	0	0	0	0	0	NS
Jun-17	0	-- [b]	-- [b]	0	0	0	NS	NS	0	0	0	0	0	0	NS
Minimum	0	0	0	0	0	0	637	0	0	0	0	0	0	0	0
Maximum	1.7	0	0	0	12	0	1257	57	1.3	9	0	0	27	0	0
Mean	0.1	0	0	0	0.7	0	913	10	0.2	0.5	0	0	2	0	0

Notes:
BTEX - Benzene, toluene, ethylbenzene and isomers of xylene
µg/L - micrograms per liter
NS - Not sampled.
NI - Piezometer not installed at time of sampling.
(a) - To calculate total BTEX concentration, a value of zero is used for non-detect values.
(b) - Monitoring well was decommissioned on 6/4/12 as part of the Utility Corridor Construction activities. See "Construction Completion Report, Utility Corridor Work Plan Implementation (Brown and Caldwell, December 2012)".

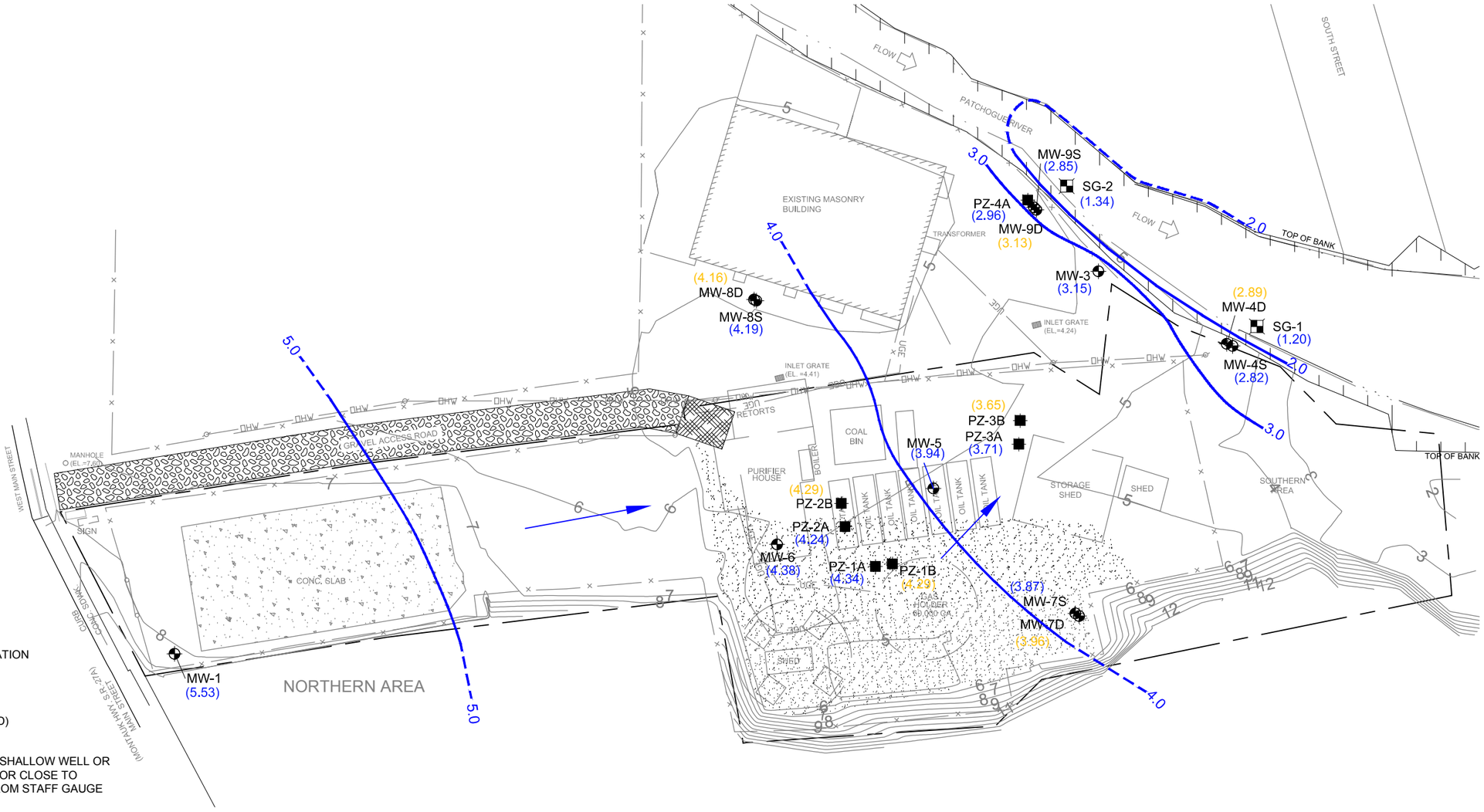
TABLE 4
SUMMARY OF HISTORICAL PAH CONCENTRATIONS
PATCHOGUE FORMER MGP SITE
PATCHOGUE, NEW YORK

Sampling Date	Total PAH Concentrations (µg/L) [a]														
	Monitoring Well/Piezometer														
	MW-1	MW-2S	MW-2D	MW-3	MW-4S	MW-4D	MW-5	MW-6	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	PZ-4A
Mar-08	0	0	0	0.76	0.6	4.3	1774	214	NS	NS	NS	NS	NS	NS	NI
Jul-08	NS	0.7	0	0	8	0	1799	154	0	0.47	0	0	12	0	NI
Mar-09	0	0	0	0	0	0	2730	0	0	0	0	0	0	0	NI
Sep-09	0	0	0	0	0	0	3373	1	0	0	0	0	0	0	NI
Mar-10	0	0	0	0	0	39	2390	17	0	0	22	0	2	0	NI
Sep-10	0	0	0	128	0	6	NS	14	0	0	11	0	396	0	NI
Jan-11	22	0	0	17	0	12	NS	NS	0	0	6	0	42	5	NI
Apr-11	0	0	0	6	0	20	NS	NS	0	0	0	0	9	0	NI
Aug-11	0	0	0.1	14	0.1	0	NS	NS	0	0	0.4	0	16	1.2	NI
Nov-11	0	0	0.2	10	0.4	0	NS	NS	0	0	0.8	0.2	8	3.4	NI
Feb-12	0.2	0	0	6	0.6	4	NS	NS	0.1	0	0.6	0	5	2.9	NI
May-12	0.4	0.1	0.6	5	0	5.8	NS	NS	0.1	0.3	1	0	6	2.8	NI
Nov-12	0.1	-- [b]	-- [b]	5.6	0.4	11.7	NS	NS	2.5	2.6	0.8	1.2	NS	NS	NI
Jun-13	0.8	-- [b]	-- [b]	NS	0.3	3.7	NS	NS	1.3	0.4	0.4	0.6	2	NS	NI
Dec-13	0	-- [b]	-- [b]	NS	0	2.5	NS	NS	0.8	0.4	0.3	0	NS	NS	NI
Jun-14	0	-- [b]	-- [b]	2.2	0.9	0	NS	NS	0.8	0.3	0.2	0	NS	NS	0.3
Dec-14	0.1	-- [b]	-- [b]	1.2	0.4	0	NS	NS	3	0	0.1	0	21.4	0.3	NS
Jun-15	0	-- [b]	-- [b]	1.1	0.9	0	NS	NS	0.9	0	0.3	0	10.4	0.3	NS
Dec-15	0	-- [b]	-- [b]	0	0	0	NS	NS	0.9	0	0	0	3.9	0	NS
Jun-16	0	-- [b]	-- [b]	1.9	0.8	0	NS	NS	2.5	0	0	0	5.9	0	NS
Dec-16	0	-- [b]	-- [b]	0.02	0	0.1	NS	NS	0	0	0	0	5.5	0.07	NS
Jun-17	0	-- [b]	-- [b]	2.0	0.5	0	NS	NS	1	0	0	0	3.2	0	NS
Min	0	0	0	0	0	0	1774	0	0	0	0	0	0	0	0.3
Max	22	0.7	0.6	128	8	39	3373	214	3	2.6	22	1.2	396	5	0.3
Mean	1.1	0.1	0.1	10	0.6	5	2413	67	0.7	0.2	2.1	0.1	30	0.9	0.3

Notes:
PAH - Polycyclic aromatic hydrocarbons
µg/L - micrograms per liter
NS - Not sampled.
NI - Piezometer not installed at time of sampling.
(a) - To calculate total PAH concentration, a value of zero is used for non-detect values.
(b) - Monitoring well was decommissioned on 6/4/12 as part of the Utility Corridor Construction activities. See "Construction Completion Report, Utility Corridor Work Plan Implementation (Brown and Caldwell, December 2012)".

Figures

0 60 120
SCALE IN FEET



LEGEND:

- PROPERTY LINE
- FENCE
- TOPOGRAPHIC CONTOUR
- SHALLOW MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- STAFF GAUGE LOCATION
- 4 — WATER TABLE CONTOUR (FT., NAVD) DASHED WHERE INFERRED
- (5.53) — GROUNDWATER ELEVATION FROM SHALLOW WELL OR PIEZOMETER (SCREENED ACROSS OR CLOSE TO WATER TABLE) OR RIVER LEVEL FROM STAFF GAUGE (FT., NAVD88)
- (4.16) — GROUNDWATER ELEVATION (FT., NAVD 88) FROM DEEP MONITORING WELL OR PIEZOMETER (SCREENED BELOW WATER TABLE)
- (NM) — NOT MEASURED
- GENERALIZED DIRECTION OF GROUNDWATER FLOW

NOTES:
1. BASE MAP INFORMATION OBTAINED FROM TETRA TECH EC, INC. DRAWING ENTITLED "CONCEPTUAL SITE MODEL", DATED DECEMBER 17, 2008.

Brown AND Caldwell

SCALE: 1" = 60'

149322

DATE: August 22, 2017

NATIONAL GRID
PATCHOGUE FORMER MGP SITE
VILLAGE OF PATCHOGUE, NEW YORK

WATER TABLE ELEVATION CONTOUR MAP
JUNE 13, 2017

FIGURE
1

Appendix A: Field Sampling Data Sheets

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-1
Sample I.D.: (If different from well no.)

Project: Patchogue
Personnel: TMB AST

Date: 6/13/17 Time: 1345
Weather: Sun Air Temp.: 95°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 59 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☐ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 300 ml/min Elapsed Time: 30 min Volume Pumped: 3 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☐ No ☑ Yes Name: Dup-20170613
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols

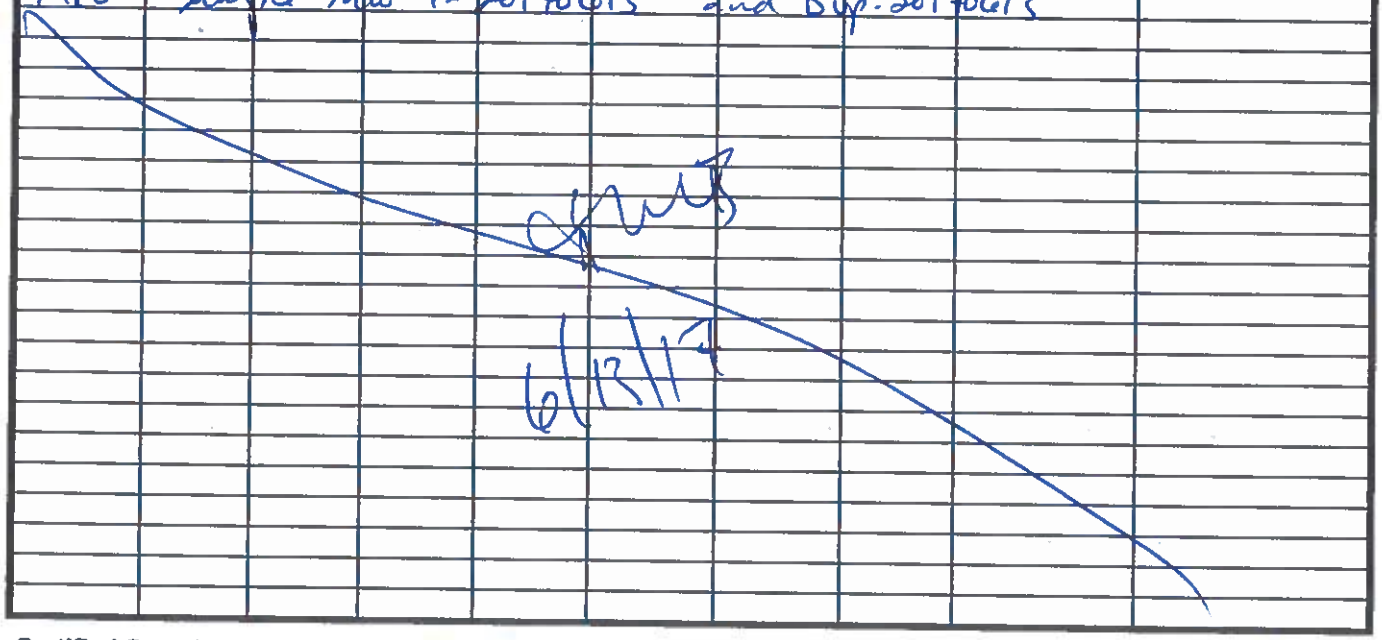
Signature: Date: 6/13/17

Brown AND Caldwell
2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Client: National Grid
Personnel: THB AJT
Purge/Sample Depth: ~ 9.5'
Project Number: 149322
Date: 6/13/17
Well ID: MW-1
Sample ID: MW-1-20170613

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1345	6.66	23.53	1.56	3.23	211	-21	6.00	300	
1348	6.69	22.90	0.66	2.56	196	-99	6.01		
1351	6.74	22.56	0.00	3.07	192	-111	6.02		
1354	6.75	22.25	0.00	3.14	206	-114	6.04		
1357	6.76	21.98	0.00	3.19	250	-115	6.05		empty bottle
1400	6.90	15.25	0.00	0.96	64.8	-120	6.03		
1403	6.80	14.20	3.84	0.00	60.1	-110	6.02		
1406	6.76	13.58	3.84	0.00	76.4	-109	6.03		
1409	6.76	13.52	3.93	0.00	67.9	-110	6.03		
1412	6.76	13.51	3.96	0.00	57.4	-111	6.04		
1415	6.78	13.41	3.98	0.00	52.4	-112	6.04		
1418	Sample MW-1-20170613 and Dup-20170613								



6/13/17

Certified Sample Information:
Time of Sample: 1418
Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit:
Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-75
Sample I.D.: (If different from well no.)

Project: Patchogue
Personnel: TMB AJT

Date: 6/13/17 Time: 1500
Weather: Sun Air Temp.: 95°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 4.62 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☐ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☐ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 200ml/min Elapsed Time: 40 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☐ No ☑ Yes Name: MW-75-20170613-MS/MSD

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/13/17

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Patchogue	Project Number:	149322.
Client:	National Grid	Date:	6/13/17
Personnel:	TMB AST	Well ID:	MW-75
Purge/Sample Depth:	~10'	Sample ID:	MW-75-20170613

Actual Time	Certified Parameters: pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1500	7.19	20.58	0.378	0.49	105	-170	4.62	200	
1503	7.18	18.70	0.375	0.00	102	-176			
1506	7.21	17.09	0.376	0.00	99.3	-182			
1509	7.25	15.11	0.384	0.00	109	-188			
1512	7.21	15.19	0.386	0.00	111	-189			Empty bottle
1515	7.12	16.95	0.346	0.98	125	-153	4.68	200	
1518	7.27	16.86	0.347	0.00	106	-174			
1521	7.28	16.33	0.352	0.00	97.0	-180			
1524	7.27	14.01	0.368	0.00	106	-182	4.70		empty bottle
1527	7.14	9.66	0.424	0.00	22.7	-163		200	
1530	7.24	9.03	0.431	0.00	14.4	-173	4.72		
1533	7.28	8.86	0.431	0.00	11.3	-181			
1536	7.28	8.89	0.431	0.00	10.3	-180	4.75		
1539	Sample MW-75-20170613 + MS/MSD								

Certified Sample Information:
Time of Sample: 1539 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☒ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-7D
Sample I.D.: (if different from well no.)

Project: Patchogue
Personnel: MJS AJT

Date: 6/13/17 Time: 1600
Weather: Sun Air Temp.: 95°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 9.41 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 ml/min Elapsed Time: 30min Volume Pumped: 2.5gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☑ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/13/17

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Patcheague	Project Number:	149322
Client:	National Grid	Date:	6/13/17
Personnel:	TMB AJT	Well ID:	MW-7D
Purge/Sample Depth:	~22'	Sample ID:	MW-7D-20170613

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1600	6.99	12.45	0.443	1.70	24.4	-28	4.40	250	
1603	6.81	11.17	0.455	0.60	31.7	-29	4.43	↓	
1606	6.38	9.90	0.470	0.00	101.5	50	4.43	↓	
1609	6.15	9.46	0.479	0.00	68.8	85	4.47	250	
1612	6.05	9.28	0.483	0.00	72.2	100	4.48	↓	
1615	6.00	9.01	0.488	0.00	63.5	114	↓	↓	
1618	6.01	8.86	0.488	0.00	64.8	125	↓	↓	
1621	5.96	8.86	0.492	0.00	53.6	130	4.49	250	
1624	5.92	8.82	0.491	0.00	52.0	133	↓	↓	
1627	5.95	8.90	0.491	0.00	46.8	139	↓	↓	
1630	5.97	8.88	0.490	0.00	43.0	142	4.49	250	
1633	Sample MW-7D-20170613								

Certified Sample Information:
Time of Sample: 1633 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-8S
Sample I.D.: (If different from well no.)

Project: Patchogue
Personnel: TMB AJT

Date: 6/13/17 Time: 1650
Weather: Sun Air Temp.: 95°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: ≈2.5 gal
Was well Evacuated? ☐ Yes ☐ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/13/17

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Client: National Grid
Personnel: TMB AJT
Purge/Sample Depth: ~ 7'

Project Number: 149327
Date: 6/13/17
Well ID: MW-8S
Sample ID: MW-8S-20170613

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1650	6.51	13.92	0.569	0.00	229	-78	0.88	250	
1653	6.53	13.61	0.569	0.00	235	-84	0.88		
1656	6.59	13.15	0.580	0.00	192	-92	0.89		
1659	6.64	12.58	0.588	0.00	181	-98	0.89		
1702	6.70	12.24	0.588	0.00	167	-99	0.90		
1705	6.71	12.26	0.585	0.00	142	-97	0.90		
1708	6.74	12.15	0.584	0.00	145	-95	0.90		VI EMPTY CHAMBER
1711	6.69	12.67	0.571	0.00	87.0	-92	0.90		
1714	6.72	12.26	0.580	0.00	32.4	-92	0.90		
1717	6.74	12.24	0.580	0.00	28.1	-92	0.90		
1720	6.73	12.23	0.580	0.00	25.8	-92	0.90		
1723	Collect Sample		MW-8S-20170613						

AJT
6/13/17

Certified Sample Information:
Time of Sample: 1723
Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit:
Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-8D
Sample I.D.: (if different from well no.)

Project: Patchogue
Personnel: TMB AMT

Date: 6/13/17 Time: 1734
Weather: Sun Air Temp.: 95°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 ml/min Elapsed Time: 30 min Volume Pumped: 0.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☑ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/13/17

Brown AND Caldwell
2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Fatehoque	Project Number:	14.9322
Client:	National Grid	Date:	6/13/17
Personnel:	TMB AJT	Well ID:	MW-8D
Purge/Sample Depth:	~ 22'	Sample ID:	MW-8D-20170613

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1734	6.61	13.70	0.482	1.03	52.2	-20	0.83	250	
1737	6.50	12.49	0.493	0.00	39.4	27	↓	↓	
1740	6.49	12.21	0.495	0.00	38.5	33	0.83		
1743	6.41	11.90	0.495	0.00	42.3	50	↓		
1746	6.40	11.85	0.496	0.00	44.3	55			
1749	6.41	11.84	0.496	0.00	44.5	64	↓		
1752	6.38	11.69	0.498	0.00	40.9	70	0.83		
1755	6.35	11.62	0.499	0.00	31.2	78	↓		
1758	6.40	11.59	0.499	0.00	27.2	82			
1801	6.35	11.66	0.499	0.00	23.4	84	↓		
1804	6.35	11.59	0.502	0.00	18.3	88	0.183	↓	
1807	Sample MW-8D-20170613								

Certified Sample Information:
Time of Sample: 1807 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-4S
Sample I.D.: (If different from well no.)

Project: Parkwayne
Personnel: TMB AJT

Date: 6/14/17 Time: 0878
Weather: overcast Air Temp.: 70°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 5.2 ft Bottom of Well: _____ ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 200 ml/min Elapsed Time: 30 min Volume Pumped: 2 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☑ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: [signature] Date: 6/14/17

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2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Patchogue
Client: National Grid
Personnel: TWB, AJT
Purge/Sample Depth: ~ 8'
Project Number: 149322
Date: 6/14/17
Well ID: MW-45
Sample ID: MW-45-20170614

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
0828	7.00	10.84	0.512	13.63	389	-120	5.20	200	
0831	7.04	10.21	0.514	13.02	371	-128	5.21		
0834	7.03	10.09	0.516	12.92	354	-130	5.23		Capital Horiba
0837	7.07	10.13	0.510	12.90	208	-126			
0840	7.16	9.64	0.513	12.21	200	-139			
0843	7.15	9.44	0.513	11.60	165	-144		200	Empty horiba
0846	7.20	9.25	0.516	0.00	62.8	-144			
0849	7.19	9.22	0.517	0.00	56.1	-146	5.24		
0852	7.19	9.23	0.517	0.00	55.6	-150		200	
0855	7.19	9.12	0.516	0.00	48.0	-153			
0858	7.22	8.96	0.517	0.00	39.7	-153			
0901	Sample MW-45-20170614								

Quick 6/14/17

Certified Sample Information:
Time of Sample: 0901
Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit:
Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☒ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-4D
Sample I.D.: (if different from well no.)

Project: Paterson
Personnel: TWD ATT

Date: 6/14/17 Time: 0933
Weather: Sun Air Temp.: 70°

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 4.85 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☑ Yes ☐ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 ml/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/14/17

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2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Patchogue	Project Number:	149322
Client:	National Grid	Date:	6/14/17
Personnel:	TMB, AJT	Well ID:	MW-4D
Purge/Sample Depth:	~97	Sample ID:	

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
0933	6.51	11.39	0.655	1.24	8.5	66	4.85	250	
0936	6.27	10.92	0.677	0.00	6.9	75			
0939	6.16	10.41	0.683	0.00	4.7	98			
0942	6.02	10.31	0.680	0.00	6.3	119			
0945	6.00	10.12	0.685	0.00	8.0	132			
0948	5.94	10.07	0.682	0.00	9.0	142		250	
0951	5.95	10.00	0.679	0.00	10.9	150			
0954	5.91	10.10	0.680	0.00	11.4	157			
0957	5.93	10.12	0.680	0.00	11.1	166		230	
1000	5.92	10.08	0.678	0.00	11.3	168			
1003	5.93	10.06	0.678	0.00	11.4	170	4.85		
1006	Sample MW-4D + 20170614								

Certified Sample Information:
Time of Sample: 1006 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-3
Sample I.D.: (If different from well no.)

Project: Petrochem
Personnel: MJB AJT

Date: 6/14/17 Time: 1022
Weather: Sun Air Temp.: 70°

WELL DATA:

Casing Diameter: 8" ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 2.35 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☐ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 200 ml/min Elapsed Time: 30 min Volume Pumped: 2 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/14/17

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Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Patcheague	Project Number:	149327
Client:	National Grid	Date:	6/14/17
Personnel:	TMB, AJT	Well ID:	MW-3
Purge/Sample Depth:	~ 7'	Sample ID:	MW-3-20170614

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1026	6.44	12.23	0.571	1.91	9.4	67	2.38	200	
1029	6.70	11.88	0.580	2.14	7.5	3	↓	↓	
1032	6.83	11.60	0.584	2.21	6.4	-17	↓	↓	
1035	6.88	11.54	0.590	2.34	6.5	-32	↓	200	
1038	6.94	11.45	0.591	2.81	5.6	-38	2.39	↓	
1041	7.04	11.34	0.591	3.15	6.8	-41	↓	↓	
1044	7.08	11.32	0.591	3.08	7.4	-36	↓	↓	
1047	7.11	11.31	0.590	2.90	5.1	-47	2.40	200	
1050	7.12	11.26	0.591	2.98	7.7	-30	↓	↓	
1053	7.13	11.26	0.590	2.96	7.5	-29	↓	↓	
1056	7.13	11.27	0.590	3.02	7.3	-26	2.42	↓	
1059	Sample MW-3-20170614								

MW-3
6/14/17

Certified Sample Information:
Time of Sample: 1059 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-9S
Sample I.D.: (If different from well no.)

Project: Patchogue
Personnel: TMB AJT

Date: 6/14/17 Time: 1118
Weather: Sun Air Temp.: 70°

WELL DATA:

Casing Diameter: 4" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other:
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 1.52 ft Bottom of Well: ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other:
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other:

Pumping Rate: 250 ml/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method:
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name:
MS/MSD : ☑ No ☐ Yes Name:

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: Date: 6/14/17

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Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Parkwood
Client: National Grid
Personnel: TMB AJT
Purge/Sample Depth: 7

Project Number: 149322
Date: 6/14/17
Well ID: MW-9S
Sample ID: MW-9S-20170614

Actual Time	Certified Parameters: pH	Temp (°C)	Cond (µS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1118	6.90	12.70	0.533	0.00	121	-120	1.63	250	
1121	6.99	12.24	0.539	0.00	124	-131	↓	↓	
1124	7.03	11.48	0.541	0.00	105	-146	↓	↓	
1127	7.08	11.28	0.536	0.00	109	-150	1.61	↓	empty horiba
1130	6.92	11.06	0.537	0.00	110	-129	↓	250	
1133	6.99	10.86	0.528	0.00	100	-141	↓	↓	
1136	7.05	10.83	0.527	0.00	99.4	-147	1.57	↓	empty horiba
1139	7.00	11.05	0.514	0.00	36.0	-118	↓	↓	
1142	6.89	10.85	0.527	0.00	35.7	-130	1.55	↓	
1145	6.98	10.82	0.529	0.00	36.9	-136	↓	250	
1148	7.05	10.76	0.530	0.00	35.8	-142	1.53		
1151	Sample MW-9S-20170614								

TMB 6/14/17

Certified Sample Information:
Time of Sample: 1151
Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit:
Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-9D
Sample I.D.: (If different from well no.)

Project: Patchogue
Personnel: TMB AJT

Date: 6/14/17 Time: 1200
Weather: Sun Air Temp.: 70°

WELL DATA:

Casing Diameter: 8" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: 1.45 ft Bottom of Well: _____ ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: NA To be purged: NA

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☐ Teflon® ☑ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 200 ml/min Elapsed Time: 30 min Volume Pumped: 2gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: NA
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel
Tubing/Rope: ☐ Teflon® ☑ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned
Metals samples field filtered? ☐ Yes ☑ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☑ No ☐ Yes Name: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: _____ Date: 6/14/17

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Pathmark	Project Number:	149322
Client:	National Grid	Date:	6/14/17
Personnel:	TMB AJT	Well ID:	MW-9D
Purge/Sample Depth:	~ 27	Sample ID:	MW-9D-20170614

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1200	6.09	11.62	0.429	0.96	33.1	40	1.45	200	
1203	5.40	11.12	0.440	0.00	22.4	113		↓	
1206	5.27	10.93	0.444	0.00	18.2	133			
1209	5.27	10.78	0.446	0.00	15.2	151		↓	
1212	5.29	10.71	0.448	0.00	16.3	170		200	
1215	5.26	10.64	0.449	0.00	15.2	186	↓	↓	
1218	5.23	10.63	0.450	0.00	15.7	196	1.45		
1221	5.23	10.62	0.449	0.00	16.2	206	1.47	↓	
1224	5.20	10.59	0.450	0.00	16.0	211	1.48	200	
1227	5.22	10.54	0.450	0.00	14.7	219	1.50	↓	
1230	5.21	10.57	0.450	0.00	14.5	224	1.51	↓	
1233	Sample MW-9D-20170614								

Certified Sample Information:
Time of Sample: 1233 Analyst Signature:

Instrument Data:
Manufacturer/Model:
Serial No. Unit: Serial No. Handheld:
Calibration Date/Time:

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Appendix B: Laboratory Reports (CD-ROM)

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

ANALYTICAL RESULTS

FULL DELIVERABLES FORMAT

APL Work Order Number: 7060508

Brown and Caldwell USR

Project: Patchogue

Brian Wood
Laboratory Director

All Results meet the requirements of the National Environmental Laboratory Accreditation Conference and/or State specific certifications as applicable.

Report Date: Jul 24, 2017

1275 Bloomfield Ave., Bldg. 6, Fairfield, New Jersey 07004
(t) 973.227.0422 (f) 973.227.2813 (w) www.aquaprotechlabs.com

NELAC National Environmental Laboratory Accreditation Conference
NJDEP #07010 / NYDOH #11634 / PADEP #68-02903

CONTENTS

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

Sample Summary

Work Order: 7060508

Client: Brown and Caldwell USR

Project: Patchogue

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-20170613	7060508-01	Ground Water	06/13/2017 14:18	06/14/2017 17:35
Dup-20170613	7060508-02	Ground Water	06/13/2017 00:00	06/14/2017 17:35
MW-7S-20170613	7060508-03	Ground Water	06/13/2017 15:39	06/14/2017 17:35
MW-7D-20170613	7060508-04	Ground Water	06/13/2017 16:33	06/14/2017 17:35
MW-8S-20170613	7060508-05	Ground Water	06/13/2017 17:23	06/14/2017 17:35
MW-8D-20170613	7060508-06	Ground Water	06/13/2017 18:07	06/14/2017 17:35
MW-4S-20170614	7060508-07	Ground Water	06/14/2017 09:01	06/14/2017 17:35
MW-4D-20170614	7060508-08	Ground Water	06/14/2017 10:06	06/14/2017 17:35
MW-3-20170614	7060508-09	Ground Water	06/14/2017 10:59	06/14/2017 17:35
MW-9S-20170614	7060508-10	Ground Water	06/14/2017 11:51	06/14/2017 17:35
FB-20170614	7060508-11	Ground Water	06/14/2017 12:00	06/14/2017 17:35
MW-9D-20170614	7060508-12	Ground Water	06/14/2017 12:33	06/14/2017 17:35
Trip Blank-20170614	7060508-13	Ground Water	06/14/2017 00:00	06/14/2017 17:35

PN: 7060508

APL 7060508

AQUA PRO-TECH LABORATORIES

www.aquaprotechlabs.com

1275 BLOOMFIELD AVENUE • BUILDING 6
FAIRFIELD, NEW JERSEY 07004

TEL: 973.227.0422
FAX: 973.227.2813

CHAIN OF CUSTODY

CLIENT: Brown + Caldwell	SEND REPORT TO: Jim Marolda
ADDRESS: 2 Park Way Suite 2A Upper Saddle River NJ 07458	ADDRESS: Same
PHONE: 201-574-4700	PHONE: Same
E-MAIL: JMarolda@BrunCald.com	FAX:
PROJECT NAME: Patchogue	SEND INVOICE TO: Same
PROJECT MGR: Jim Marolda	ADDRESS:
PROJECT or PO #:	SAMPLED BY: TMB/AJT

TURN-AROUND TIME

- [x] APL STANDARD 2 weeks
- [ ] RUSH (choose one below)
  - [ ] 24 hr. date & time required
  - [ ] 48 hr. date & time required
  - [ ] 72 hr. date & time required
  - [ ] 1 week

REPORT FORMAT

- [ ] RESULTS ONLY
- [x] NJ DEP REDUCED per AR.
- [ ] NJ DEP FULL
- [ ] STATE FORMS/E2 REPORTING

PWSID#

ELECTRONIC FORMAT

- [ ] EMAIL DELIVERY
- [ ] HAZSITE EDD
- [ ] EXCEL

SRP#

CONTAMINATION LEVEL

☐ HIGH ☐ MEDIUM ☐ LOW

MATRIX ABBREVIATIONS: D - DRINKING WATER G - GROUNDWATER W - WASTEWATER S - SOIL SL - SLUDGE C - CONCRETE L - LAKE

APL Lab ID#	Sample Source: Field ID	Date	Time	Sample Type GRAB	Sample Type COMP	MATRIX	No. of Bottles	Preservative	Analysis Requested
7060508-01	MW-1-20170613	6/13/17	1418	X		G	4	HCl/none	BTEX, MTBE, PAHs, VOCs
-02	Dup-20170613		9999	X		G	4	HCl/none	
-03	MW-7S-20170613		1539	X		G	4	HCl/none	
-04	MW-7D-20170613 MS/MSD		1633	X		G	12	HCl/none	
-05	MW-8S-20170613		1723	X		G	4	HCl/none	
-06	MW-8D-20170613		1807	X		G	4	HCl/none	
-07	MW-4S-20170614	6/14/17	0901	X		G	4	HCl/none	
-08	MW-4D-20170614		1006	X		G	4	HCl/none	
-09	MW-3-20170614		1059	X		G	4	HCl/none	

RELINQUISHED BY (Print) Andrew Temples	DATE 6/14/17	RECEIVED BY (Print) Drew McMahon	
Signature Andrew Temples	Time 1735	Signature	
RELINQUISHED BY (Print)	DATE	RECEIVED BY (Print)	
Signature	Time	Signature	
RELINQUISHED BY (Print)	DATE	RECEIVED BY (Print)	
Signature	Time	Signature	

COMMENTS/SPECIAL INSTRUCTIONS

Cooler Temp. upon receipt at lab 3.7

CERTIFICATIONS: NELAP (National Environmental Laboratory Accredation Program) NJDEP #07010 PADEP #68-02903 NYDOH #11634 CTPH #0233 US ARMY

By signing this Chain of Custody Agreement, customer expressly agrees to pay APL for all charges, reasonably incurred in connection with analysis and reporting for these samples

PN: 7060508

APL
AQUA PRO-TECH LABORATORIES
www.aquaprotechlabs.com

1275 BLOOMFIELD AVENUE • BUILDING 6
FAIRFIELD, NEW JERSEY 07004

TEL: 973.227.0422
FAX: 973.227.2813

CHAIN OF CUSTODY

CLIENT: Brown + Caldwell	SEND REPORT TO: Jim Marolda
ADDRESS: 2 Park Way Suite 2A	ADDRESS: Same
Upper Saddle River NJ 07458	
PHONE: 201-574-4700	PHONE: Same
E-MAIL: JMarolda@BrwnCald.com	FAX:
PROJECT NAME: Jim Marolda	SEND INVOICE TO: Same
PROJECT MGR: Pat Hoagne	ADDRESS:
PROJECT or PO #:	SAMPLED BY: TMB/AJT

CONTAMINATION LEVEL
☐ HIGH ☐ MEDIUM ☐ LOW

TURN-AROUND TIME
- ☒ APL STANDARD 2 weeks
- ☐ RUSH (choose one below)
  - ☐ 24 hr. date & time required
  - ☐ 48 hr. date & time required
  - ☐ 72 hr. date & time required
  - ☐ 1 week

REPORT FORMAT
- ☐ RESULTS ONLY
- ☐ NJ DEP REDUCED
- ☐ NJ DEP FULL
- ☐ STATE FORMS/E2 REPORTING

PWSID#

ELECTRONIC FORMAT
- ☐ EMAIL DELIVERY
- ☐ HAZSITE EDD
- ☐ EXCEL

SRP#

MATRIX ABBREVIATIONS: D - DRINKING WATER G - GROUNDWATER W - WASTEWATER S - SOIL SL - SLUDGE C - CONCRETE L - LAKE

APL Lab ID#	Sample Source: Field ID	Date	Time	Sample Type GRAB	Sample Type COMP	MATRIX	No. of Bottles	Preservative	Analysis Requested
7060508-10	MW-9S-20170614	6/14/17	1151	X		G	4	HCl/none	BTEX, MTBE, PAHs, VOCs
-11	FB-20170614		1200	X		FB	4		
-12	MW-9D-20170614		1233	X		G	4		
-13	Tripblank-20170614		—	X		TB	4	HCl	VOCs

RELINQUISHED BY (Print) Andrew Temples	DATE 6/14/17	RECEIVED BY (Print) Doug McMahon	
Signature Andrew Temples	Time 1735	Signature	
RELINQUISHED BY (Print)	DATE	RECEIVED BY (Print)	
Signature	Time	Signature	
RELINQUISHED BY (Print)	DATE	RECEIVED BY (Print)	
Signature	Time	Signature	

COMMENTS/SPECIAL INSTRUCTIONS

Cooler Temp. upon receipt at lab 3.7

CERTIFICATIONS: NELAP (National Environmental Laboratory Accredation Program) NJDEP #07010 PADEP #68-02903 NYDOH #11634 CTPH #0233 US ARMY

By signing this Chain of Custody Agreement, customer expressly agrees to pay APL for all charges, reasonably incurred in connection with analysis and reporting for these samples

Extractable Petroleum Hydrocarbons:

Gas Chromatography/Flame Ionization Detector

New Jersey Department of Environmental Protection Site Remediation Program Extractable Petroleum Hydrocarbons Methodology (Version 3.0).
USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8015B or NJDEP Office of Quality Assurance Quantitation of Semi-Volatile Petroleum Products in Water, Soil and Sediment OQA-QAM-025, Revision 6.

Metals:

Inductively-Coupled Plasma Atomic Emission Spectrometry or Inductively-Coupled Plasma Mass Spectroscopy

Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 200.7, Method 200.8.
Soil Samples-USEPA Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 6010B.

Mercury:

Cold Vapor Atomic Absorption Spectrometry

Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 245.1.
Soil Samples-USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 7171A.

Volatile Organic Compounds:

Purge and Trap Gas Chromatography/Mass Spectroscopy

Drinking Water Samples-USEPA Methods for the Determination of Organic Compounds in Drinking Water, Method 524.2.
Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 624, Method 8260B.
Soil Samples-USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8260B.

Semi-Volatile Organic Compounds:

Gas Chromatography/Mass Spectroscopy

Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 625, Method 8270C.
Soil Samples-USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8270C.

Pesticides:

Gas Chromatography/Electron Capture Detector

Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 608, Method 8081A.
Soil Samples-USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8081A.

Polychlorinated Biphenyls (PCBs):

Gas Chromatography/Electron Capture Detector

Water Samples-USEPA Methods for the Analysis of Water and Wastes, Method 608, Method 8082.
Soil Samples-USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8082

General Chemistry Methods:

Various general chemistry methods are taken from "Standard Methods for the Examination of Water and Wastewater, 19th Edition".

Specific method citations can be found on the Analytical Results Summary page of this report listed under 'Method'.

MDL:

Method Detection Limit. The minimum reportable concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The value is calculated from the analysis of seven replicates of a spike sample. On analytical reports this value is corrected for percent moisture and any concentration or dilution factors.

RL:

Reporting Limit. The Concentration of the lowest calibration standard that was included in the initial calibration of the instrument. On analytical reports this value is corrected for percent moisture and any concentration or dilution factors.

Concentration (Conc) / Result:

If the compound is detected, the measured concentration is reported. If this column is left blank, or contains a 'less than' (<) symbol, the compound was not detected.

Tentatively Identified Compound (TIC):

A TIC is a non-targeted compound, not included in the calibration, identified by a mass spectral library search.

Qualifiers:

- **U:** Indicates the compound was analyzed for but was not detected.
- **J:** Indicates an estimated value. All tentatively identified compounds (TICs) and results below the RL receive this qualifier.
- **B:** Indicates the analyte was found in the method blank as well as the sample.
- **N:** Used when reporting a specific tentatively identified compound.
- **E:** Indicates that the concentration of the compound exceeds the calibration range of the instrument. The results of a diluted analysis will also be reported. The results of the dilution should be used for those compounds exceeding the calibration range in the undiluted analysis.

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Aqua Pro-Tech Laboratories

Client: Brown & Caldwell - USR

Project Location: Patchogue

Project Number: 7060508

Laboratory Sample ID(s): 01-13 **Sampling Date(s):** June 13-14, 2017

List DKQP Methods Used: 8260B; 8270C

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑ Yes ☐ No
IA	Were the method specified handling, preservation, and holding time requirements met?	☑ Yes ☐ No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (4±2° C)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐ Yes ☑ No
5	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt? Were these reporting limits met?	☑ Yes ☐ No ☑ Yes ☐ No ☐ N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑ Yes ☐ No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	☑ Yes ☐ No

Notes: For all questions to which the response was "No° (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for Data of Known Quality.°

QUALITY CONTROL
Conformance/Non-Conformance Summary

ANALYSIS: VOLATILES BY GC/MS [8260B]

All samples met the QC criteria.

ANALYSIS: SEMI-VOLATILES BY GC/MS [8270C]

Batch B7F1527:

The percent recoveries for several compounds were outside of the QC limits for the matrix spike and matrix spike duplicate.
The blank spike met all QC criteria.

Reviewed By: _____ (SK) 7/25/2017
Brian Wood - Laboratory Director — Date

For any questions about your Quality Control, please call us at 973-227-0422.

Positive Results Only Summary

7060508-03 (Ground Water) Sample Name: **MW-7S-20170613**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Naphthalene	1.00	J	0.542	2.00	ug/L	1	6/16/17 23:53

7060508-07 (Ground Water) Sample Name: **MW-4S-20170614**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Pyrene	0.507	J	0.371	2.00	ug/L	1	6/17/17 1:39

7060508-09 (Ground Water) Sample Name: **MW-3-20170614**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Fluoranthene	0.918	J	0.301	2.00	ug/L	1	6/20/17 1:14
Pyrene	1.06	J	0.371	2.00	ug/L	1	6/20/17 1:14

7060508-10 (Ground Water) Sample Name: **MW-9S-20170614**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	1.00	J	0.613	2.00	ug/L	1	6/20/17 1:41
Fluoranthene	0.917	J	0.301	2.00	ug/L	1	6/20/17 1:41
Pyrene	1.31	J	0.371	2.00	ug/L	1	6/20/17 1:41

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-01 (Ground Water) Sample Name: **MW-1-20170613** Collected: **6/13/2017 2:18:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/16/17 23:00
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/16/17 23:00
Anthracene	ND	U	0.319	2.00	ug/L	1	6/16/17 23:00
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/16/17 23:00
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/16/17 23:00
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/16/17 23:00
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/16/17 23:00
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/16/17 23:00
Chrysene	ND	U	0.431	2.00	ug/L	1	6/16/17 23:00
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/16/17 23:00
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/16/17 23:00
Fluorene	ND	U	0.179	2.00	ug/L	1	6/16/17 23:00
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/16/17 23:00
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/16/17 23:00
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/16/17 23:00
Pyrene	ND	U	0.371	2.00	ug/L	1	6/16/17 23:00

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 14:27
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 14:27
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 14:27
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 14:27
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 14:27
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 14:27
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 14:27

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-02 (Ground Water) Sample Name: **Dup-20170613** Collected: **6/13/2017 12:00:00AM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/16/17 23:27
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/16/17 23:27
Anthracene	ND	U	0.319	2.00	ug/L	1	6/16/17 23:27
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/16/17 23:27
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/16/17 23:27
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/16/17 23:27
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/16/17 23:27
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/16/17 23:27
Chrysene	ND	U	0.431	2.00	ug/L	1	6/16/17 23:27
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/16/17 23:27
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/16/17 23:27
Fluorene	ND	U	0.179	2.00	ug/L	1	6/16/17 23:27
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/16/17 23:27
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/16/17 23:27
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/16/17 23:27
Pyrene	ND	U	0.371	2.00	ug/L	1	6/16/17 23:27

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 14:53
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 14:53
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 14:53
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 14:53
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 14:53
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 14:53
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 14:53

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-03 (Ground Water) Sample Name: **MW-7S-20170613** Collected: **6/13/2017 3:39:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/16/17 23:53
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/16/17 23:53
Anthracene	ND	U	0.319	2.00	ug/L	1	6/16/17 23:53
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/16/17 23:53
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/16/17 23:53
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/16/17 23:53
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/16/17 23:53
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/16/17 23:53
Chrysene	ND	U	0.431	2.00	ug/L	1	6/16/17 23:53
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/16/17 23:53
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/16/17 23:53
Fluorene	ND	U	0.179	2.00	ug/L	1	6/16/17 23:53
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/16/17 23:53
Naphthalene	1.00	J	0.542	2.00	ug/L	1	6/16/17 23:53
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/16/17 23:53
Pyrene	ND	U	0.371	2.00	ug/L	1	6/16/17 23:53

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 15:18
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 15:18
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 15:18
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 15:18
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 15:18
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 15:18
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 15:18

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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AQUA PRO-TECH LABORATORIES
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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-04 (Ground Water) Sample Name: **MW-7D-20170613** Collected: **6/13/2017 4:33:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/17/17 0:20
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/17/17 0:20
Anthracene	ND	U	0.319	2.00	ug/L	1	6/17/17 0:20
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/17/17 0:20
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/17/17 0:20
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/17/17 0:20
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/17/17 0:20
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/17/17 0:20
Chrysene	ND	U	0.431	2.00	ug/L	1	6/17/17 0:20
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/17/17 0:20
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/17/17 0:20
Fluorene	ND	U	0.179	2.00	ug/L	1	6/17/17 0:20
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/17/17 0:20
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/17/17 0:20
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/17/17 0:20
Pyrene	ND	U	0.371	2.00	ug/L	1	6/17/17 0:20

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 15:44
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 15:44
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 15:44
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 15:44
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 15:44
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 15:44
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 15:44

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-05 (Ground Water) Sample Name: **MW-8S-20170613** Collected: **6/13/2017 5:23:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/17/17 0:46
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/17/17 0:46
Anthracene	ND	U	0.319	2.00	ug/L	1	6/17/17 0:46
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/17/17 0:46
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/17/17 0:46
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/17/17 0:46
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/17/17 0:46
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/17/17 0:46
Chrysene	ND	U	0.431	2.00	ug/L	1	6/17/17 0:46
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/17/17 0:46
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/17/17 0:46
Fluorene	ND	U	0.179	2.00	ug/L	1	6/17/17 0:46
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/17/17 0:46
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/17/17 0:46
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/17/17 0:46
Pyrene	ND	U	0.371	2.00	ug/L	1	6/17/17 0:46

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 16:09
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 16:09
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 16:09
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 16:09
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 16:09
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 16:09
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 16:09

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-06 (Ground Water) Sample Name: **MW-8D-20170613** Collected: **6/13/2017 6:07:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/17/17 1:13
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/17/17 1:13
Anthracene	ND	U	0.319	2.00	ug/L	1	6/17/17 1:13
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/17/17 1:13
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/17/17 1:13
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/17/17 1:13
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/17/17 1:13
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/17/17 1:13
Chrysene	ND	U	0.431	2.00	ug/L	1	6/17/17 1:13
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/17/17 1:13
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/17/17 1:13
Fluorene	ND	U	0.179	2.00	ug/L	1	6/17/17 1:13
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/17/17 1:13
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/17/17 1:13
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/17/17 1:13
Pyrene	ND	U	0.371	2.00	ug/L	1	6/17/17 1:13

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 16:35
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 16:35
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 16:35
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 16:35
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 16:35
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 16:35
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 16:35

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-07 (Ground Water) Sample Name: **MW-4S-20170614** Collected: **6/14/2017 9:01:00AM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/17/17 1:39
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/17/17 1:39
Anthracene	ND	U	0.319	2.00	ug/L	1	6/17/17 1:39
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/17/17 1:39
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/17/17 1:39
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/17/17 1:39
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/17/17 1:39
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/17/17 1:39
Chrysene	ND	U	0.431	2.00	ug/L	1	6/17/17 1:39
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/17/17 1:39
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/17/17 1:39
Fluorene	ND	U	0.179	2.00	ug/L	1	6/17/17 1:39
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/17/17 1:39
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/17/17 1:39
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/17/17 1:39
Pyrene	0.507	J	0.371	2.00	ug/L	1	6/17/17 1:39

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 17:00
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:00
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 17:00
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 17:00
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:00
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 17:00
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 17:00

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-08 (Ground Water) Sample Name: **MW-4D-20170614** Collected: **6/14/2017 10:06:00AM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/17/17 2:06
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/17/17 2:06
Anthracene	ND	U	0.319	2.00	ug/L	1	6/17/17 2:06
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/17/17 2:06
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/17/17 2:06
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/17/17 2:06
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/17/17 2:06
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/17/17 2:06
Chrysene	ND	U	0.431	2.00	ug/L	1	6/17/17 2:06
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/17/17 2:06
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/17/17 2:06
Fluorene	ND	U	0.179	2.00	ug/L	1	6/17/17 2:06
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/17/17 2:06
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/17/17 2:06
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/17/17 2:06
Pyrene	ND	U	0.371	2.00	ug/L	1	6/17/17 2:06

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 17:26
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:26
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 17:26
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 17:26
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:26
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 17:26
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 17:26

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-09 (Ground Water) Sample Name: **MW-3-20170614** Collected: **6/14/2017 10:59:00AM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/20/17 1:14
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/20/17 1:14
Anthracene	ND	U	0.319	2.00	ug/L	1	6/20/17 1:14
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/20/17 1:14
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/20/17 1:14
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/20/17 1:14
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/20/17 1:14
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/20/17 1:14
Chrysene	ND	U	0.431	2.00	ug/L	1	6/20/17 1:14
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/20/17 1:14
Fluoranthene	0.918	J	0.301	2.00	ug/L	1	6/20/17 1:14
Fluorene	ND	U	0.179	2.00	ug/L	1	6/20/17 1:14
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/20/17 1:14
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/20/17 1:14
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/20/17 1:14
Pyrene	1.06	J	0.371	2.00	ug/L	1	6/20/17 1:14

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 17:52
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:52
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 17:52
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 17:52
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 17:52
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 17:52
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 17:52

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
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All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-10 (Ground Water) Sample Name: **MW-9S-20170614** Collected: **6/14/2017 11:51:00AM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	1.00	J	0.613	2.00	ug/L	1	6/20/17 1:41
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/20/17 1:41
Anthracene	ND	U	0.319	2.00	ug/L	1	6/20/17 1:41
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/20/17 1:41
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/20/17 1:41
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/20/17 1:41
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/20/17 1:41
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/20/17 1:41
Chrysene	ND	U	0.431	2.00	ug/L	1	6/20/17 1:41
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/20/17 1:41
Fluoranthene	0.917	J	0.301	2.00	ug/L	1	6/20/17 1:41
Fluorene	ND	U	0.179	2.00	ug/L	1	6/20/17 1:41
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/20/17 1:41
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/20/17 1:41
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/20/17 1:41
Pyrene	1.31	J	0.371	2.00	ug/L	1	6/20/17 1:41

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/20/17 18:18
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/20/17 18:18
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/20/17 18:18
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/20/17 18:18
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/20/17 18:18
Toluene	ND	U	0.205	1.00	ug/L	1	6/20/17 18:18
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/20/17 18:18

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-11 (Ground Water) Sample Name: **FB-20170614** Collected: **6/14/2017 12:00:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/20/17 2:08
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/20/17 2:08
Anthracene	ND	U	0.319	2.00	ug/L	1	6/20/17 2:08
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/20/17 2:08
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/20/17 2:08
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/20/17 2:08
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/20/17 2:08
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/20/17 2:08
Chrysene	ND	U	0.431	2.00	ug/L	1	6/20/17 2:08
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/20/17 2:08
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/20/17 2:08
Fluorene	ND	U	0.179	2.00	ug/L	1	6/20/17 2:08
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/20/17 2:08
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/20/17 2:08
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/20/17 2:08
Pyrene	ND	U	0.371	2.00	ug/L	1	6/20/17 2:08

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/22/17 16:37
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/22/17 16:37
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/22/17 16:37
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/22/17 16:37
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/22/17 16:37
Toluene	ND	U	0.205	1.00	ug/L	1	6/22/17 16:37
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/22/17 16:37

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-12 (Ground Water) Sample Name: **MW-9D-20170614** Collected: **6/14/2017 12:33:00PM**

SW 846 8270C - Semivolatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Acenaphthene	ND	U	0.613	2.00	ug/L	1	6/20/17 2:35
Acenaphthylene	ND	U	0.271	2.00	ug/L	1	6/20/17 2:35
Anthracene	ND	U	0.319	2.00	ug/L	1	6/20/17 2:35
Benzo(a)anthracene	ND	U	0.472	2.00	ug/L	1	6/20/17 2:35
Benzo(a)pyrene	ND	U	0.351	2.00	ug/L	1	6/20/17 2:35
Benzo(b)fluoranthene	ND	U	0.423	2.00	ug/L	1	6/20/17 2:35
Benzo(g,h,i)perylene	ND	U	0.495	2.00	ug/L	1	6/20/17 2:35
Benzo(k)fluoranthene	ND	U	0.433	2.00	ug/L	1	6/20/17 2:35
Chrysene	ND	U	0.431	2.00	ug/L	1	6/20/17 2:35
Dibenzo(a,h)anthracene	ND	U	0.401	2.00	ug/L	1	6/20/17 2:35
Fluoranthene	ND	U	0.301	2.00	ug/L	1	6/20/17 2:35
Fluorene	ND	U	0.179	2.00	ug/L	1	6/20/17 2:35
Indeno(1,2,3-cd)pyrene	ND	U	0.429	2.00	ug/L	1	6/20/17 2:35
Naphthalene	ND	U	0.542	2.00	ug/L	1	6/20/17 2:35
Phenanthrene	ND	U	0.462	2.00	ug/L	1	6/20/17 2:35
Pyrene	ND	U	0.371	2.00	ug/L	1	6/20/17 2:35

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/22/17 17:02
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/22/17 17:02
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/22/17 17:02
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/22/17 17:02
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/22/17 17:02
Toluene	ND	U	0.205	1.00	ug/L	1	6/22/17 17:02
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/22/17 17:02

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APL
AQUA PRO-TECH LABORATORIES
Certified Environmental Testing

All Results Summary

Client: Brown and Caldwell USR
Project: Patchogue
Work Order: 7060508
Date to Lab: 6/14/2017 5:35:00PM

7060508-13 (Ground Water) Sample Name: **Trip Blank-20170614** Collected: **6/14/2017 12:00:00AM**

SW 846 8260B - Volatile Organics - GC/MS

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Benzene	ND	U	0.129	1.00	ug/L	1	6/22/17 16:11
EthylBenzene	ND	U	0.244	1.00	ug/L	1	6/22/17 16:11
m+p-Xylenes	ND	U	0.461	2.00	ug/L	1	6/22/17 16:11
Methyl tert-Butyl Ether	ND	U	0.596	1.00	ug/L	1	6/22/17 16:11
o-Xylene	ND	U	0.244	1.00	ug/L	1	6/22/17 16:11
Toluene	ND	U	0.205	1.00	ug/L	1	6/22/17 16:11
Total Xylenes	ND	U	0.244	1.00	ug/L	1	6/22/17 16:11

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

AQUA PRO-TECH LABORATORIES
Sample Preparation Log- GC/MS Extractables

Na2SO4 Lot #

Method # 625 (BN, SIM), PAH Batch # BF1527 Cooked 4 Hr. @ 400 C

6W

	Sample ID	Sample Wt. Vol. (g/ml)	Final Vol. (ml)	Extr. By	Date Extr.	Extr. to R12	Accept By	Ext. to Waste	Comments
	WABN BLK	1000.0	1.0	NV	6/15/17				
	WABN BS	1	1	1	1				
	7060 508-03 MS	500.0							
	MSD	1							
1	7060508 - 01	1000	1.0	NV	6/15/17				
2	1 - 02	1000	1	1	1				
3	508 - 03	1000	1	1	1				
4	BLK 3,4; BS2	2x1000	1.0	NV	6/16/17				
5	7060508 - 04	1000	1	1	1				
6	- 05	1000	1	1	1				
7	- 06	1000	1	1	1				
8	7060508 - 07	1000	1	1	1				
9	7060508 - 08	1000	1	1	1				
10	7060508 - 09	1000	1	1	1				
11	7060507 - 01	860	1	1	1				
12	7060508 - 10	1000	1	1	1				
13	- 11	1000	1	1	1				
14	- 12	1000	1	1	1				
15	7060529 - 01	250	1	1	1				
16									
17									
18									
19									
20									

Spike Solutions

	Vol. Added (ml)	Conc. (µg/mL)	Standard Lot#
ABN Surrogate	0.5	100/200	
BN Surrogate	0.5	100	
ABN I + ABN II Spike	1.0	50	
ABN II Spike	1.0	50	

Matrix: (Circle one) Soil (Water) Sludge Liquid (non aqueous) Other _____

Extraction Method: (Circle one) (Separatory Funnel) Sonication Other _____

Extraction Technician: N.V

Supervisor: _____

Injection Log

Directory: G:\HPCHEM\A\DATA\20170616

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	AS00873.D	1.	SEQ-TUN		16 Jun 2017 16:08
2	3	AS00874.D	1.	SEQ-CCV		16 Jun 2017 16:24
3	4	AS00875.D	1.	B7F1527-BLK1		16 Jun 2017 17:13
4	5	AS00876.D	1.	B7F1527-BS1		16 Jun 2017 17:40
5	6	AS00877.D	1.	B7F1310-BLK2		16 Jun 2017 18:07
6	7	AS00878.D	1.	B7F1310-BS2		16 Jun 2017 18:34
7	8	AS00879.D	1.	7060503-07	B7F1506	16 Jun 2017 19:00
8	9	AS00880.D	1.	7060503-08	B7F1506	16 Jun 2017 19:27
9	10	AS00881.D	1.	7060503-09	B7F1506	16 Jun 2017 19:54
10	11	AS00882.D	1.	7060448-17	B7F1404	16 Jun 2017 20:21
11	12	AS00883.D	1.	7060456-02	B7F1404	16 Jun 2017 20:47
12	13	AS00884.D	1.	7060456-05	B7F1404	16 Jun 2017 21:14
13	14	AS00885.D	1.	7060456-06	B7F1404	16 Jun 2017 21:40
14	15	AS00886.D	1.	7060474-09	B7F1506	16 Jun 2017 22:07
15	16	AS00887.D	1.	7060474-10	B7F1506	16 Jun 2017 22:34
16	17	AS00888.D	1.	7060508-01	B7F1527	16 Jun 2017 23:00
17	18	AS00889.D	1.	7060508-02	B7F1527	16 Jun 2017 23:27
18	19	AS00890.D	1.	7060508-03	B7F1527	16 Jun 2017 23:53
19	20	AS00891.D	1.	7060508-04	B7F1527	17 Jun 2017 00:20
20	21	AS00892.D	1.	7060508-05	B7F1527	17 Jun 2017 00:46
21	22	AS00893.D	1.	7060508-06	B7F1527	17 Jun 2017 01:13
22	23	AS00894.D	1.	7060508-07	B7F1527	17 Jun 2017 01:39
23	24	AS00895.D	1.	7060508-08	B7F1527	17 Jun 2017 02:06
24	25	AS00896.D	1.	NG_7060507-01	B7F1527	17 Jun 2017 02:32
25	26	AS00897.D	1.	B7F1506-MS1		17 Jun 2017 02:59
26	27	AS00898.D	1.	B7F1506-MSD1		17 Jun 2017 03:25

Injection Log

Directory: G:\HPCHEM\A\DATA\20170619

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	AS00899.D	1.	SEQ-TUN		19 Jun 2017 18:28
2	2	AS00899a.D	1.	SEQ-TUN		19 Jun 2017 18:28
3	3	AS00900.D	1.	SEQ-CCV		19 Jun 2017 18:44
4	3	AS00900a.D	1.	SEQ-CCV		19 Jun 2017 18:44
5	4	AS00901.D	1.	B7F1527-BLK3		19 Jun 2017 19:20
6	5	AS00902.D	1.	B7F1527-BS2		19 Jun 2017 19:47
7	6	AS00903.D	1.	B7F1913-BLK1	TCLP	19 Jun 2017 20:14
8	7	AS00904.D	1.	B7F1913-BS1	TCLP	19 Jun 2017 20:42
9	8	AS00905.D	1.	7060597-01	B7F1913 TCLP	19 Jun 2017 21:09
10	9	AS00906.D	1.	7060597-02	B7F1913 TCLP	19 Jun 2017 21:36
11	10	AS00907.D	1.	7060597-03	B7F1913 TCLP	19 Jun 2017 22:04
12	11	AS00908.D	1.	7060597-04	B7F1913 TCLP	19 Jun 2017 22:31
13	12	AS00909.D	1.	7060597-05	B7F1913 TCLP	19 Jun 2017 22:58
14	13	AS00910.D	1.	7060597-06	B7F1913 TCLP	19 Jun 2017 23:25
15	14	AS00911.D	1.	7060597-07	B7F1913 TCLP	19 Jun 2017 23:52
16	15	AS00912.D	1.	B7F1913-MS1	TCLP	20 Jun 2017 00:19
17	16	AS00913.D	1.	B7F1913-MSD1	TCLP	20 Jun 2017 00:47
18	17	AS00914.D	1.	7060508-09	B7F1527	20 Jun 2017 01:14
19	18	AS00915.D	1.	7060508-10	B7F1527	20 Jun 2017 01:41
20	19	AS00916.D	1.	7060508-11	B7F1527	20 Jun 2017 02:08
21	20	AS00917.D	1.	7060508-12	B7F1527	20 Jun 2017 02:35
22	21	AS00918.D	1.	7060529-01	B7F1527	20 Jun 2017 03:02
23	22	AS00919.D	1.	7060507-01	5 x B7F1527	20 Jun 2017 03:29

Injection Log

Directory: G:\HPCHEM\4\DATA\06202017

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	51	4V27810.D	1.	rinse		20 Jun 2017 10:40
2	52	4V27811.D	1.	SEQ-TUN		20 Jun 2017 11:05
3	53	4V27812.D	1.	SEQ-CCV@X50ppb		20 Jun 2017 11:30
4	54	4V27813.D	1.	B7F2163-BS1		20 Jun 2017 11:56
5	55	4V27814.D	1.	B7F2163-BLK1		20 Jun 2017 12:21
6	56	4V27815.D	1.	7060380-01		20 Jun 2017 12:45
7	57	4V27816.D	1.	7060380-02		20 Jun 2017 13:10
8	58	4V27817.D	1.	7060350-01RE1	100 x	20 Jun 2017 13:36
9	59	4V27818.D	1.	7060379-01		20 Jun 2017 14:02
10	60	4V27819.D	1.	7060508-01		20 Jun 2017 14:27
11	61	4V27820.D	1.	7060508-02		20 Jun 2017 14:53
12	62	4V27821.D	1.	7060508-03		20 Jun 2017 15:18
13	63	4V27822.D	1.	7060508-04		20 Jun 2017 15:44
14	64	4V27823.D	1.	7060508-05		20 Jun 2017 16:09
15	65	4V27824.D	1.	7060508-06		20 Jun 2017 16:35
16	66	4V27825.D	1.	7060508-07		20 Jun 2017 17:00
17	67	4V27826.D	1.	7060508-08		20 Jun 2017 17:26
18	68	4V27827.D	1.	7060508-09		20 Jun 2017 17:52
19	69	4V27828.D	1.	7060508-10		20 Jun 2017 18:18
20	70	4V27829.D	1.	7060623-01		20 Jun 2017 18:43
21	71	4V27830.D	1.	7060623-02		20 Jun 2017 19:09
22	72	4V27831.D	1.	7060623-03		20 Jun 2017 19:34
23	73	4V27832.D	1.	7060623-04		20 Jun 2017 19:59
24	74	4V27833.D	1.	7060623-05		20 Jun 2017 20:25
25	75	4V27834.D	1.	7060623-06		20 Jun 2017 20:50
26	76	4V27835.D	1.	7060623-07		20 Jun 2017 21:15
27	77	4V27836.D	1.	7060623-08		20 Jun 2017 21:40
28	78	4V27837.D	1.	7060623-09		20 Jun 2017 22:05
29	79	4V27838.D	1.	7060403-04		20 Jun 2017 22:30
30	80	4V27839.D	1.	B7F2163-MS1		20 Jun 2017 22:55
31	81	4V27840.D	1.	B7F2163-MSD1		20 Jun 2017 23:20
32	82	4V27841.D	1.	VIAL TEST		20 Jun 2017 23:45
33	83	4V27842.D	1.	VIAL TEST		21 Jun 2017 00:10

Injection Log

Directory: G:\HPCHEM\4\DATA\06222017

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	4V27843.D	1.	rinse		22 Jun 2017 12:20
2	2	4V27844.D	1.	SEQ-TUN		22 Jun 2017 12:45
3	3	4V27845.D	1.	SEQ-CCV@X50ppb		22 Jun 2017 13:11
4	4	4V27846.D	1.	B7F2331-BS1		22 Jun 2017 13:36
5	5	4V27847.D	1.	B7F2331-BLK1		22 Jun 2017 14:02
6	6	4V27848.D	1.	7060687-01	10 x TCLP	22 Jun 2017 14:27
7	7	4V27849.D	1.	7060379-01RE1	100 x	22 Jun 2017 14:53
8	8	4V27850.D	1.	7060623-06RE1	50 x	22 Jun 2017 15:19
9	9	4V27851.D	1.	7060725-01		22 Jun 2017 15:45
10	10	4V27852.D	1.	7060508-13		22 Jun 2017 16:11
11	11	4V27853.D	1.	7060508-11		22 Jun 2017 16:37
12	12	4V27854.D	1.	7060508-12		22 Jun 2017 17:02
13	13	4V27855.D	1.	7060456-01		22 Jun 2017 17:28
14	14	4V27856.D	1.	7060456-02		22 Jun 2017 17:54
15	15	4V27857.D	1.	7060456-03		22 Jun 2017 18:20
16	16	4V27858.D	1.	7060456-04		22 Jun 2017 18:46
17	17	4V27859.D	1.	7060456-05		22 Jun 2017 19:12
18	18	4V27860.D	1.	7060456-06		22 Jun 2017 19:38
19	19	4V27861.D	1.	NG 7060547-01		22 Jun 2017 20:03
20	20	4V27862.D	1.	7060547-02		22 Jun 2017 20:29
21	21	4V27863.D	1.	NG 7060547-03		22 Jun 2017 20:54
22	22	4V27864.D	1.	7060547-04		22 Jun 2017 21:20
23	23	4V27865.D	1.	7060547-05		22 Jun 2017 21:45
24	24	4V27866.D	1.	7060547-06		22 Jun 2017 22:10
25	25	4V27867.D	1.	NG 7060547-07		22 Jun 2017 22:36
26	26	4V27868.D	1.	NG 7060547-13		22 Jun 2017 23:01
27	27	4V27869.D	1.	7060547-14		22 Jun 2017 23:26
28	28	4V27870.D	1.	7060547-15		22 Jun 2017 23:52
29	29	4V27871.D	1.	B7F2331-MS1		23 Jun 2017 00:17
30	30	4V27872.D	1.	B7F2331-MSD1		23 Jun 2017 00:42

SEMIVOLATILES

Brown and Caldwell USR

Work Order: 7060508

Project: Patchogue

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client:	**Brown and Caldwell USR**	**Project:**	**Patchogue**
Client Sample ID:	**Blank**	**Work Order:**	**7060508**
Lab Sample ID:	**B7F1527-BLK1**		

Init/Final Vol:	1000 mL / 1 mL	Prep Date:	06/15/2017 17:04	File ID:	AS00875.D
		Prep Batch:	B7F1527	Analyzed:	06/16/2017 17:13
		Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00875.D Vial: 4
Acq On : 16 Jun 2017 17:13 Operator: GCH
Sample : B7F1527-BLK1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:19 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	235554	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	796559	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	377614	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	702824	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	636988	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	535825	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	296653	32.86	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 32.86%			
7) Phenol-d6	4.90	99	230963	21.98	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 21.98%#			
22) Nitrobenzene-d5	5.81	82	284163	33.12	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 66.24%			
43) 2-Fluorobiphenyl	7.57	172	579318	32.97	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 65.94%			
65) 2,4,6-Tribromophenol	9.06	330	139056	70.10	ug/kg	-0.06
Spiked Amount 100.000	Range 30 - 130		Recovery = 70.10%			
78) p-Terphenyl-d14	11.35	244	697266	41.15	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 82.30%			

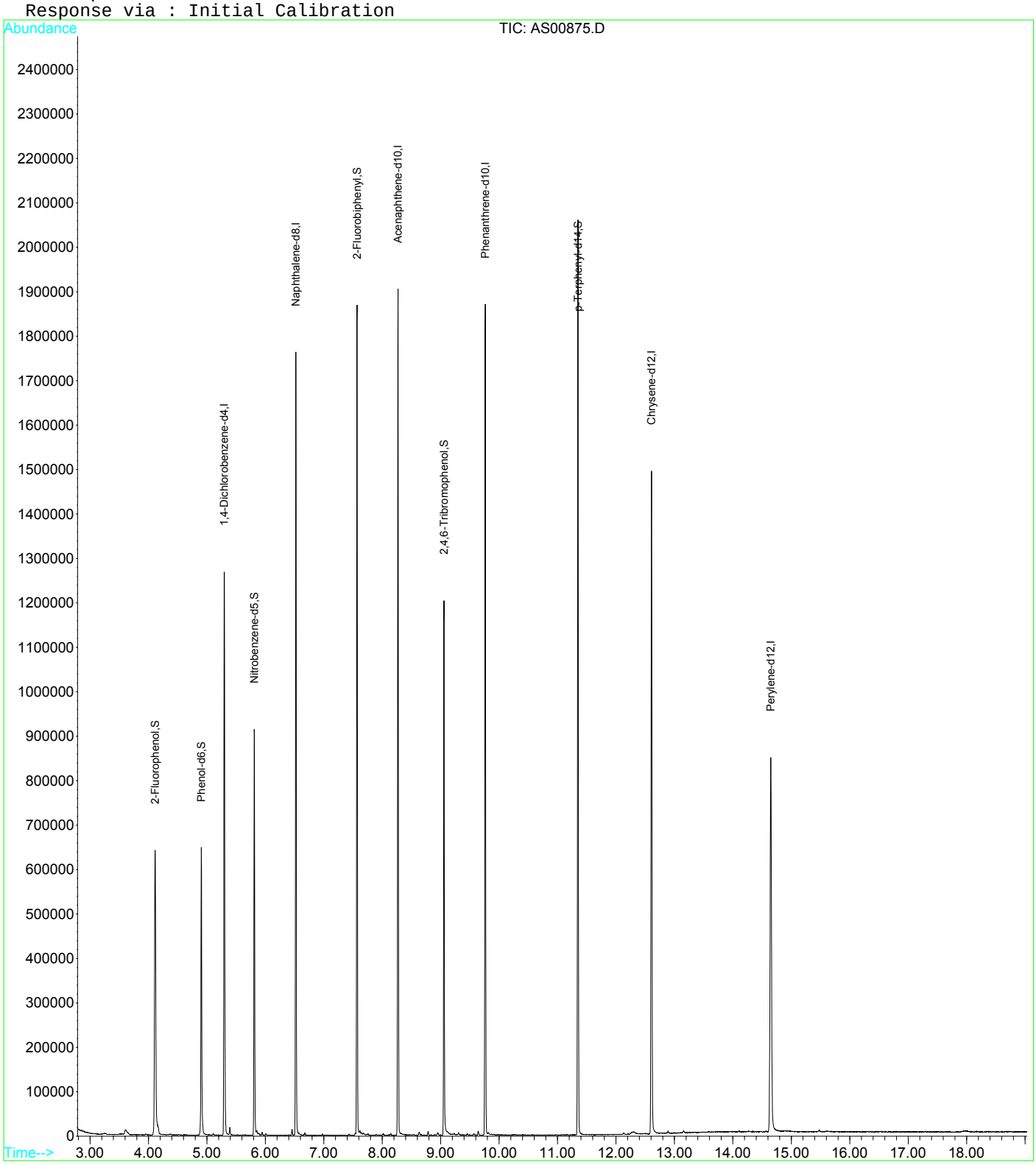
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00875.D 0426ABNS.M Tue Jun 20 11:13:35 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00875.D Vial: 4
Acq On : 16 Jun 2017 17:13 Operator: GCH
Sample : B7F1527-BLK1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:19 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client:	**Brown and Caldwell USR**	**Project:**	**Patchogue**
Client Sample ID:	**Blank**	**Work Order:**	**7060508**
Lab Sample ID:	**B7F1527-BLK3**		

Init/Final Vol:	1000 mL / 1 mL	Prep Date:	06/16/2017 17:04	File ID:	AS00901.D
		Prep Batch:	B7F1527	Analyzed:	06/19/2017 19:20
		Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00901.D Vial: 4
Acq On : 19 Jun 2017 19:20 Operator: GCH
Sample : B7F1527-BLK3 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:08 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	231673	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	784726	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	373519	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	703879	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	625390	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	530797	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	324492	36.55	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 36.55%			
7) Phenol-d6	4.90	99	243193	23.53	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 23.53%#			
22) Nitrobenzene-d5	5.81	82	279777	33.11	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 66.22%			
43) 2-Fluorobiphenyl	7.57	172	566194	32.58	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 65.16%			
65) 2,4,6-Tribromophenol	9.06	330	135253	68.08	ug/kg	-0.06
Spiked Amount 100.000	Range 30 - 130		Recovery = 68.08%			
78) p-Terphenyl-d14	11.35	244	647518	38.92	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 77.84%			

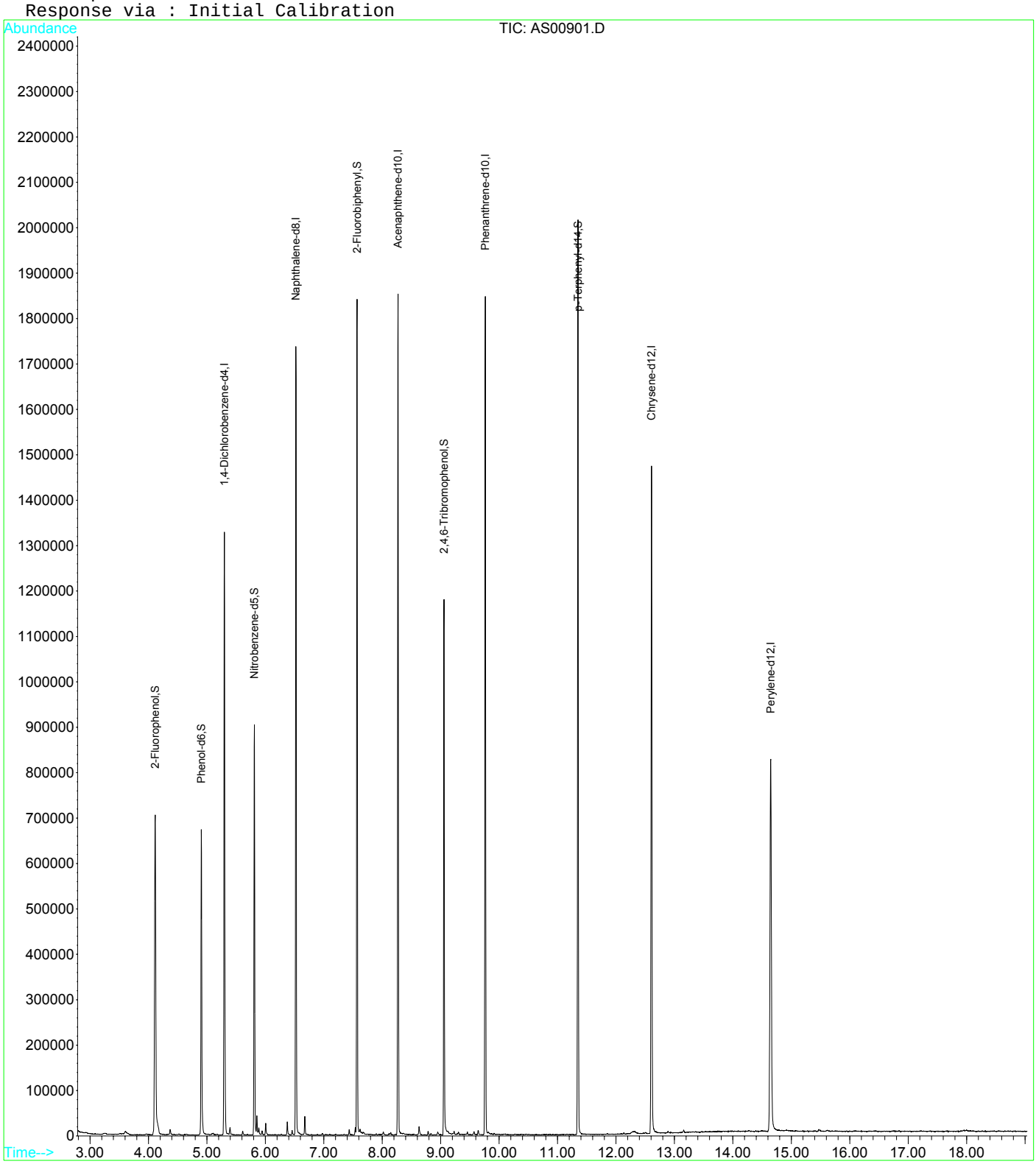
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00901.D 0426ABNS.M Tue Jun 20 12:24:50 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00901.D Vial: 4
Acq On : 19 Jun 2017 19:20 Operator: GCH
Sample : B7F1527-BLK3 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:08 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



AS00901.D 0426ABNS.M Tue Jun 20 12:24:50 2017 SS Page 2

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-1-20170613**
Lab Sample ID: **7060508-01**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 14:18	Prep Date:	06/15/17 17:04	File ID:	AS00888.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:00
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00888.D Vial: 17
Acq On : 16 Jun 2017 23:00 Operator: GCH
Sample : 7060508-01 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	326577	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	1088589	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	512578	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	917617	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	853258	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	739212	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.25	112	17	0.00	ug/kg	0.05
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	10	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	224461	19.15	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	38.30%		
43) 2-Fluorobiphenyl	7.57	172	488420	20.48	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	40.96%		
65) 2,4,6-Tribromophenol	9.18	330	9	0.00	ug/kg	0.07
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	443223	19.53	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	39.06%		

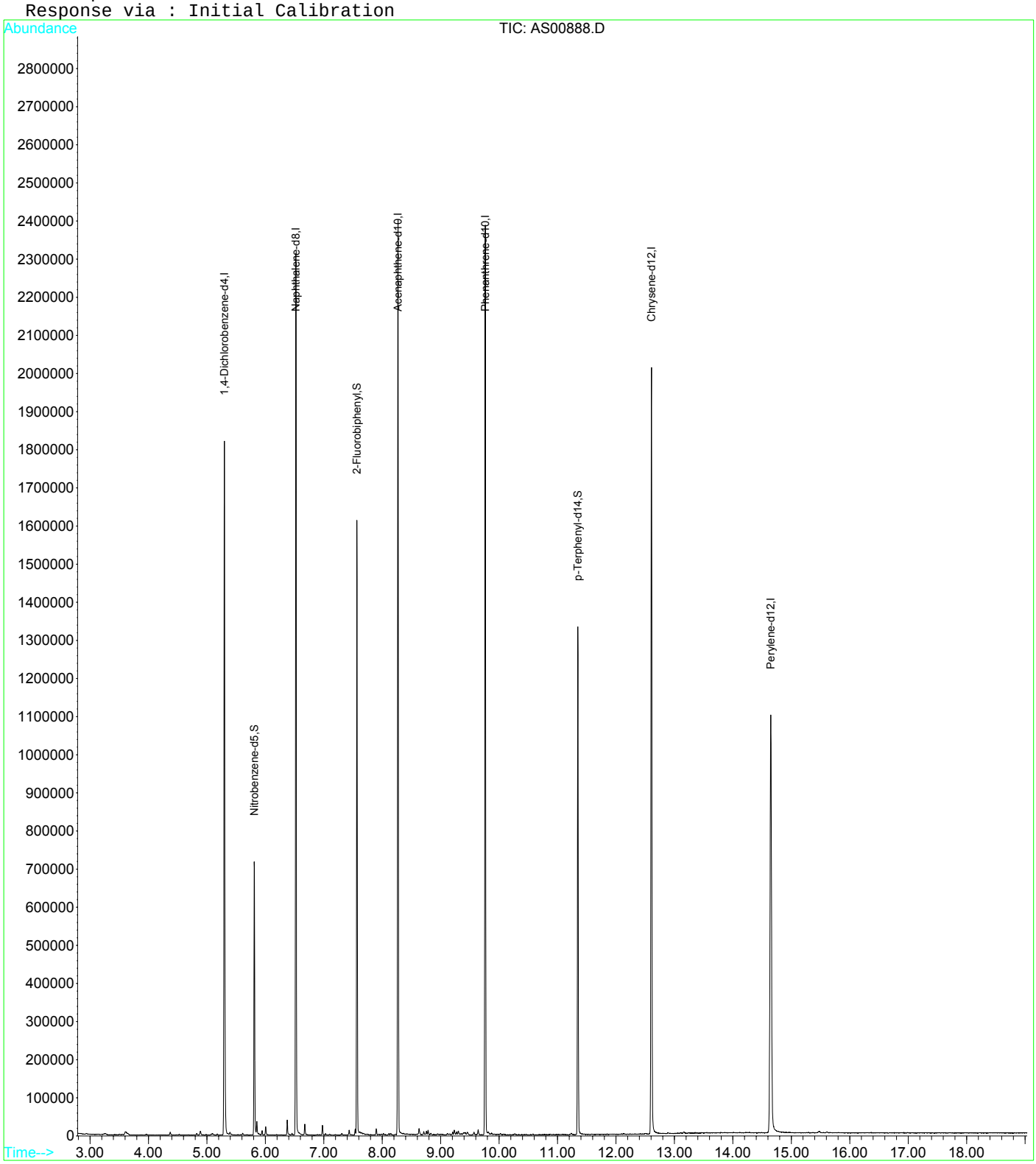
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00888.D 0426ABNS.M Tue Jun 20 11:14:05 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00888.D Vial: 17
Acq On : 16 Jun 2017 23:00 Operator: GCH
Sample : 7060508-01 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **Dup-20170613**
Lab Sample ID: **7060508-02**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 00:00	Prep Date:	06/15/17 17:04	File ID:	AS00889.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:27
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00889.D Vial: 18
Acq On : 16 Jun 2017 23:27 Operator: GCH
Sample : 7060508-02 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	293025	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	964379	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	456491	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	823526	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	729677	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	602863	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.17	112	22	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	33	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	226425	21.80	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	43.60%		
43) 2-Fluorobiphenyl	7.57	172	483933	22.79	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	45.58%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	383221	19.74	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	39.48%		

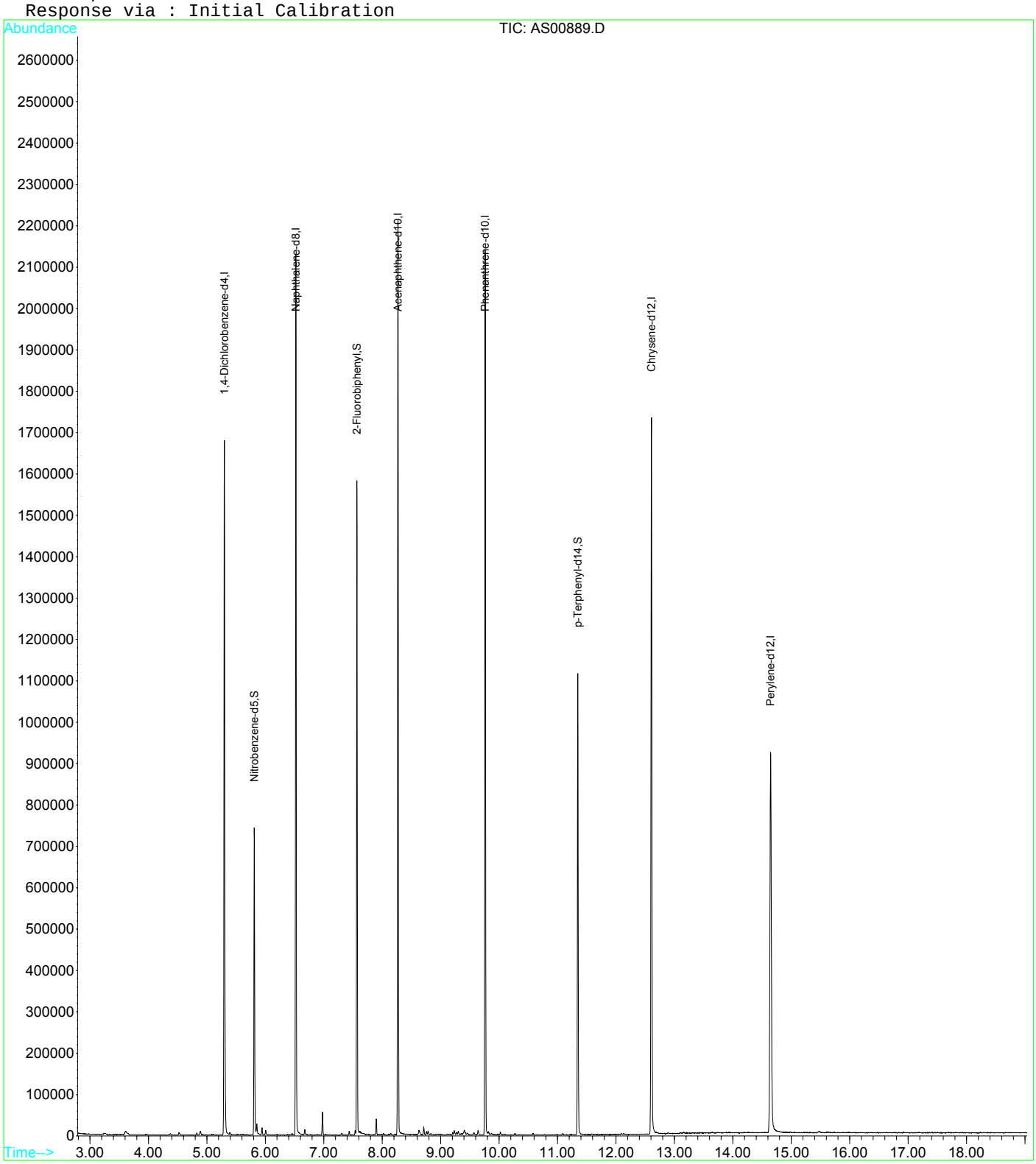
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00889.D 0426ABNS.M Tue Jun 20 11:14:08 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00889.D Vial: 18
Acq On : 16 Jun 2017 23:27 Operator: GCH
Sample : 7060508-02 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-7S-20170613**
Lab Sample ID: **7060508-03**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 15:39	Prep Date:	06/15/17 17:04	File ID:	AS00890.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:53
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	1.00	0.542	2.00	J
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00890.D Vial: 19
Acq On : 16 Jun 2017 23:53 Operator: GCH
Sample : 7060508-03 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

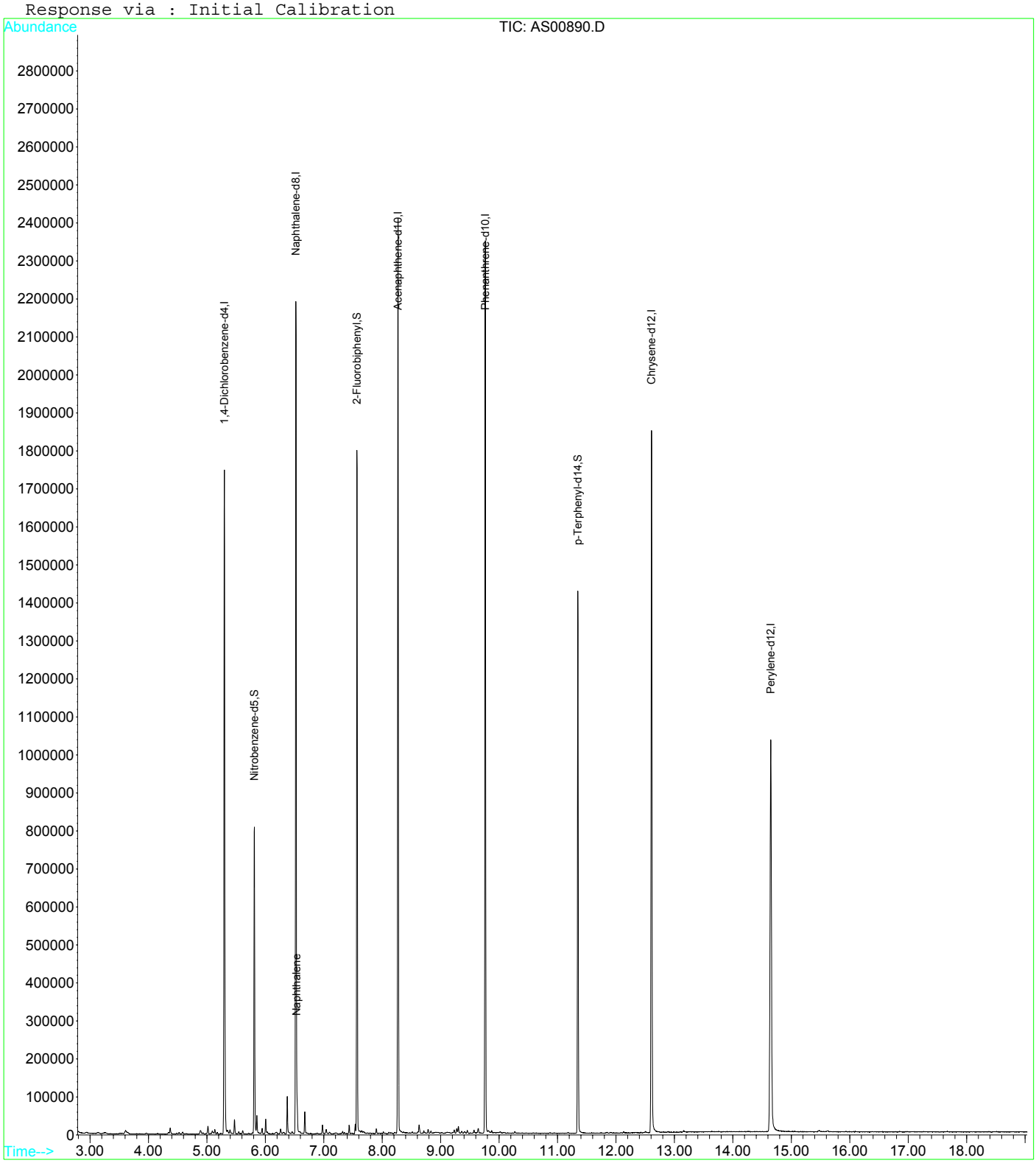
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	311712	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	1033680	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	486853	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	872674	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	786623	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	666995	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.17	112	32	0.00	ug/kg	-0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.97	99	9	0.00	ug/kg	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	248208	22.30	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	44.60%		
43) 2-Fluorobiphenyl	7.57	172	554199	24.47	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	48.94%		
65) 2,4,6-Tribromophenol	9.08	330	16	0.01	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.01%#		
78) p-Terphenyl-d14	11.35	244	485182	23.19	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	46.38%		
Target Compounds						Qvalue
31) Naphthalene	6.54	128	29156	1.00	ug/kg	99

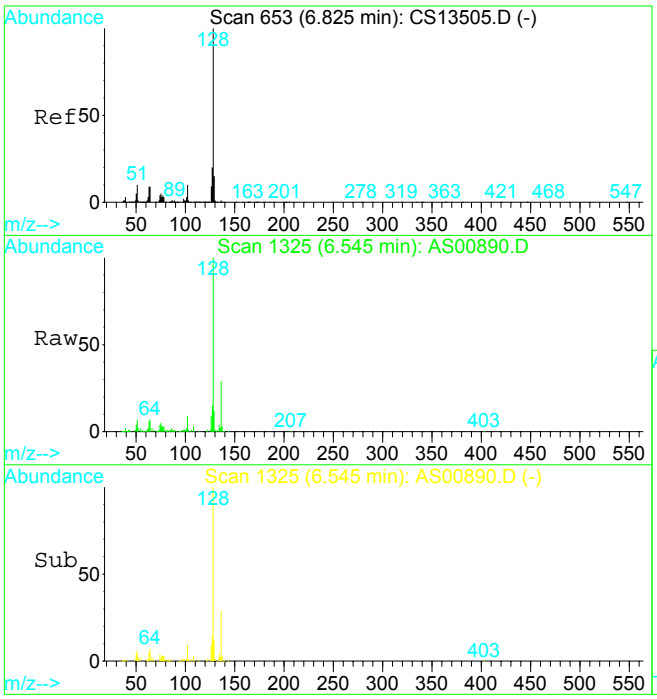
(#) = qualifier out of range (m) = manual integration
AS00890.D 0426ABNS.M Tue Jul 11 10:30:18 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00890.D Vial: 19
Acq On : 16 Jun 2017 23:53 Operator: GCH
Sample : 7060508-03 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration

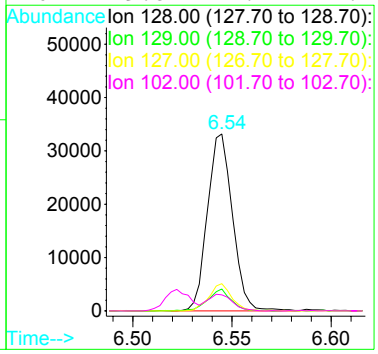




#31
Naphthalene
Concen: 1.00 ug/kg
RT: 6.54 min Scan# 1325
Delta R.T. -0.04 min
Lab File: AS00890.D
Acq: 16 Jun 2017 23:53

Tgt Ion:128 Resp: 29156

Ion	Ratio	Lower	Upper
128	100		
129	11.5	5.7	17.0
127	13.8	6.6	19.8
102	9.3	4.7	14.1



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-7D-20170613**
Lab Sample ID: **7060508-04**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 16:33	Prep Date:	06/16/17 17:04	File ID:	AS00891.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 00:20
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00891.D Vial: 20
Acq On : 17 Jun 2017 00:20 Operator: GCH
Sample : 7060508-04 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	255336	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	872524	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	416621	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	758515	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	700085	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	579765	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.13	112	43	0.00	ug/kg	-0.07
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	10	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	290927	30.96	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	61.92%		
43) 2-Fluorobiphenyl	7.57	172	641847	33.11	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	66.22%		
65) 2,4,6-Tribromophenol	9.01	330	11	0.01	ug/kg	-0.11
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.01%#		
78) p-Terphenyl-d14	11.35	244	590419	31.70	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	63.40%		

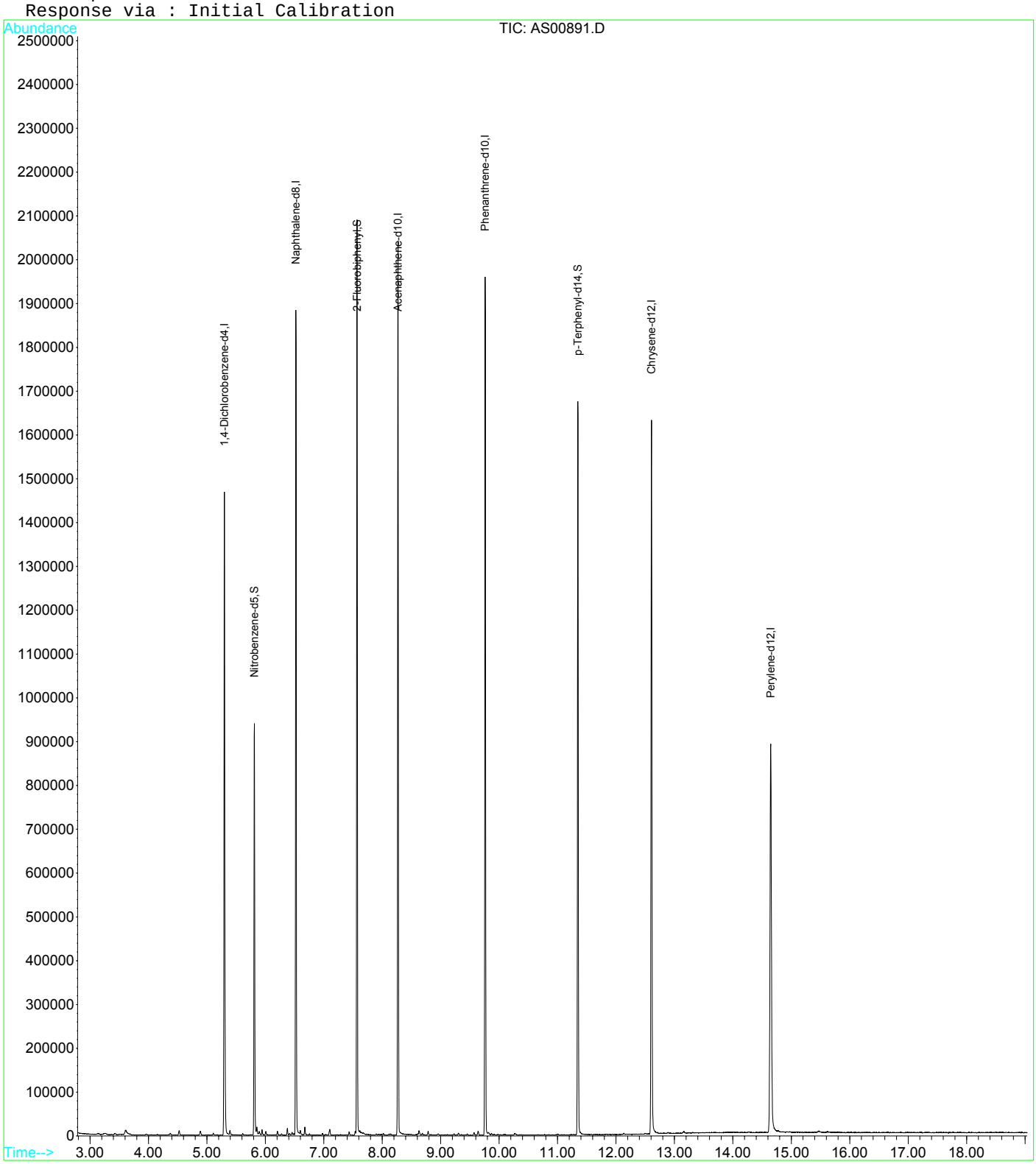
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00891.D 0426ABNS.M Tue Jun 20 11:14:12 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00891.D Vial: 20
Acq On : 17 Jun 2017 00:20 Operator: GCH
Sample : 7060508-04 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



AS00891.D 0426ABNS.M Tue Jun 20 11:14:13 2017 SS Page 2

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-8S-20170613**
Lab Sample ID: **7060508-05**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 17:23	Prep Date:	06/16/17 17:04	File ID:	AS00892.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 00:46
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00892.D Vial: 21
Acq On : 17 Jun 2017 00:46 Operator: GCH
Sample : 7060508-05 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	265162	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	895480	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	422463	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	764766	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	699186	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	591257	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.01	112	41	0.00	ug/kg	-0.19
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.91	99	28	0.00	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	289068	29.97	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	59.94%		
43) 2-Fluorobiphenyl	7.57	172	611409	31.11	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	62.22%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	590770	31.76	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	63.52%		

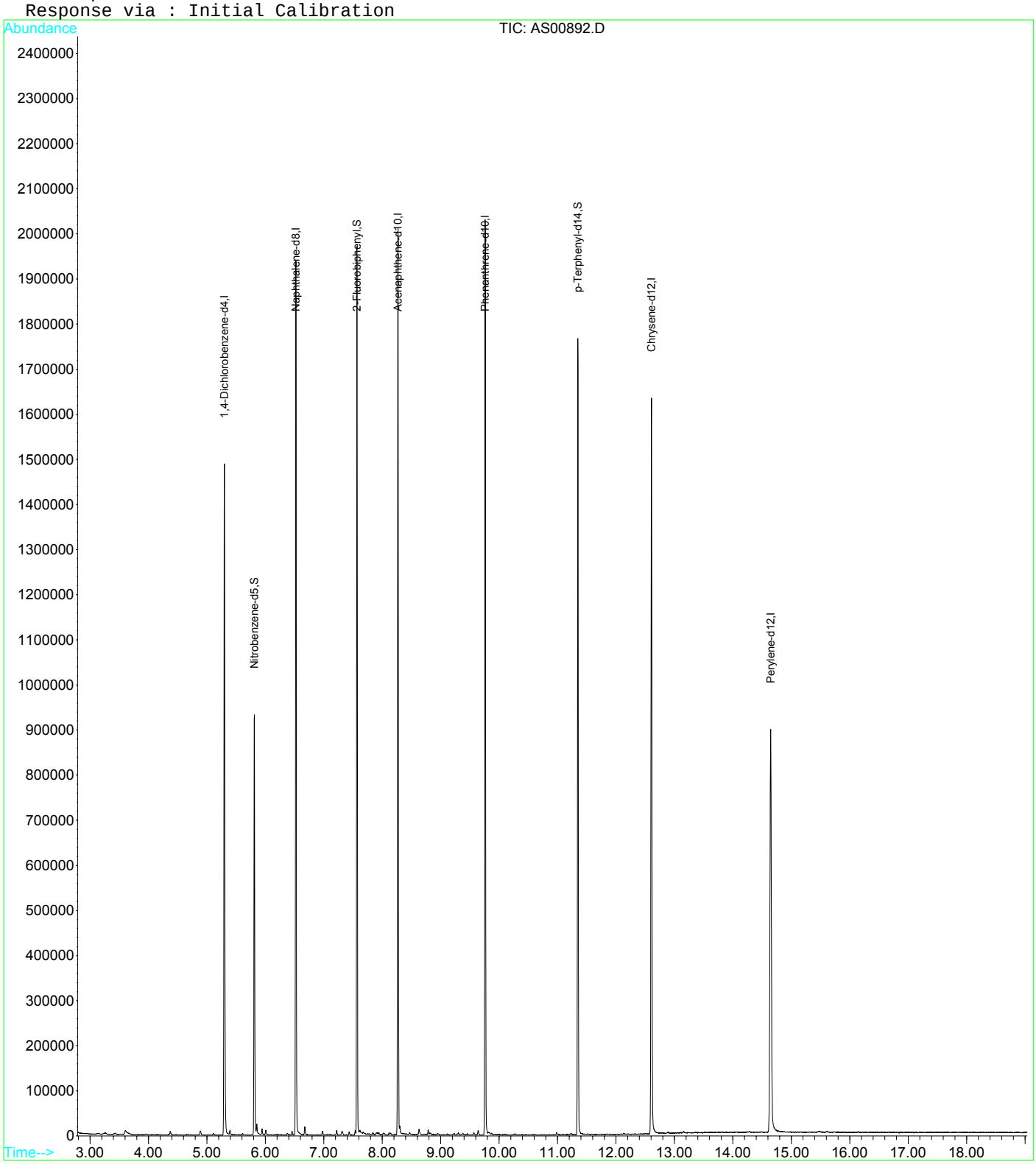
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00892.D 0426ABNS.M Tue Jun 20 11:14:14 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00892.D Vial: 21
Acq On : 17 Jun 2017 00:46 Operator: GCH
Sample : 7060508-05 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



AS00892.D 0426ABNS.M Tue Jun 20 11:14:14 2017 SS Page 2

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-8D-20170613**
Lab Sample ID: **7060508-06**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 18:07	Prep Date:	06/16/17 17:04	File ID:	AS00893.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 01:13
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00893.D Vial: 22
Acq On : 17 Jun 2017 1:13 Operator: GCH
Sample : 7060508-06 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	270718	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	930929	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	440105	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	817033	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	742211	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	624194	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.91	99	10	0.00	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	324494	32.37	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	64.74%		
43) 2-Fluorobiphenyl	7.57	172	671290	32.78	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	65.56%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	548262	27.77	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	55.54%		

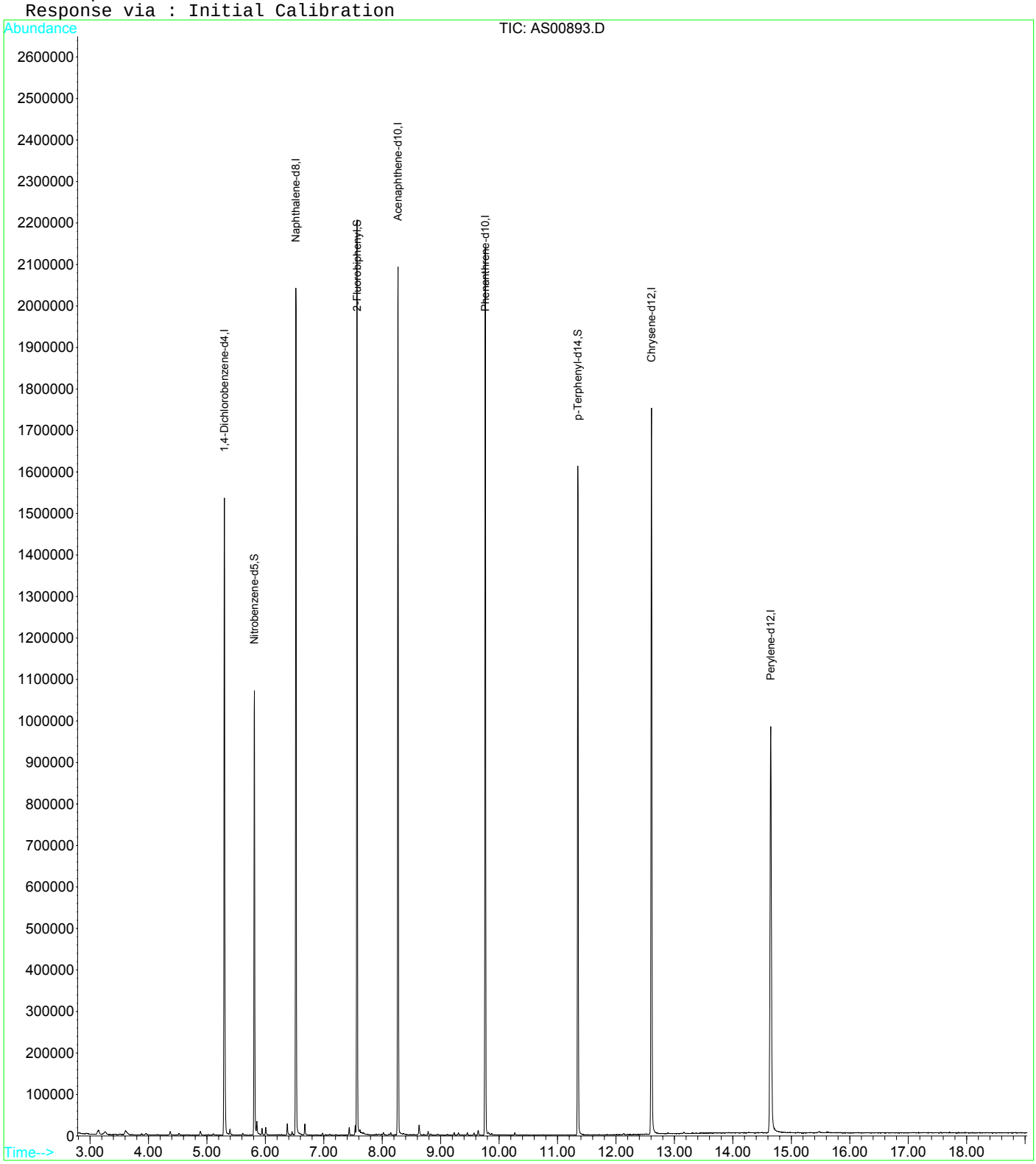
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00893.D 0426ABNS.M Tue Jun 20 11:14:16 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00893.D Vial: 22
Acq On : 17 Jun 2017 1:13 Operator: GCH
Sample : 7060508-06 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-4S-20170614**
Lab Sample ID: **7060508-07**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 09:01	Prep Date:	06/16/17 17:04	File ID:	AS00894.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 01:39
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	0.507	0.371	2.00	J

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00894.D Vial: 23
Acq On : 17 Jun 2017 1:39 Operator: GCH
Sample : 7060508-07 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

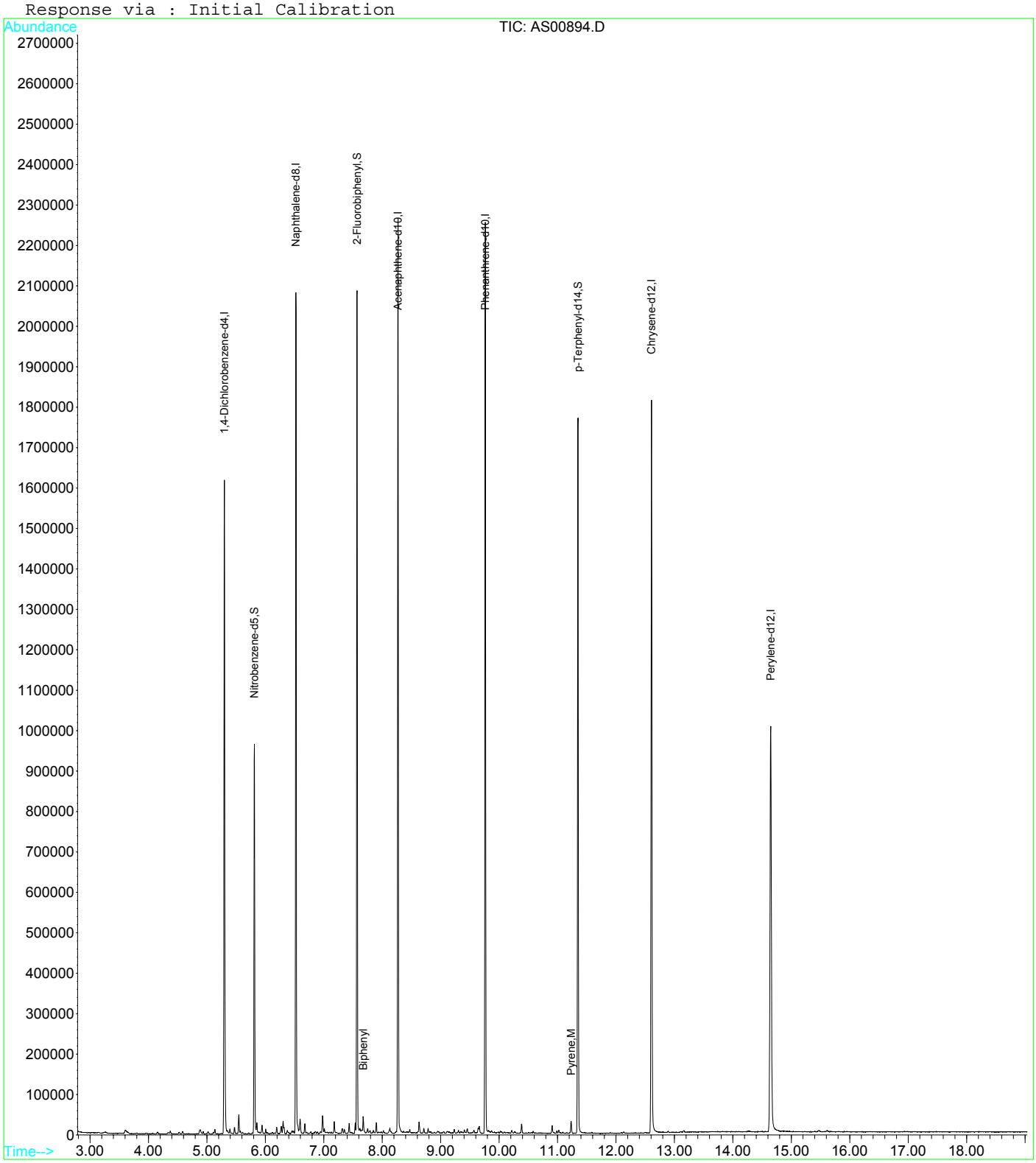
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	287761	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.53	136	960129	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	455165	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	838140	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	765819	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	638189	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.06	112	21	0.00	ug/kg	-0.14
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
7) Phenol-d6	4.92	99	10	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
22) Nitrobenzene-d5	5.81	82	297691	28.79	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 57.58%			
43) 2-Fluorobiphenyl	7.57	172	630117	29.76	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 59.52%			
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
78) p-Terphenyl-d14	11.35	244	615950	30.24	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 60.48%			
Target Compounds						Qvalue
44) Biphenyl	7.67	154	11817	0.58	ug/kg	98
77) Pyrene	11.23	202	14093	0.51	ug/kg	98

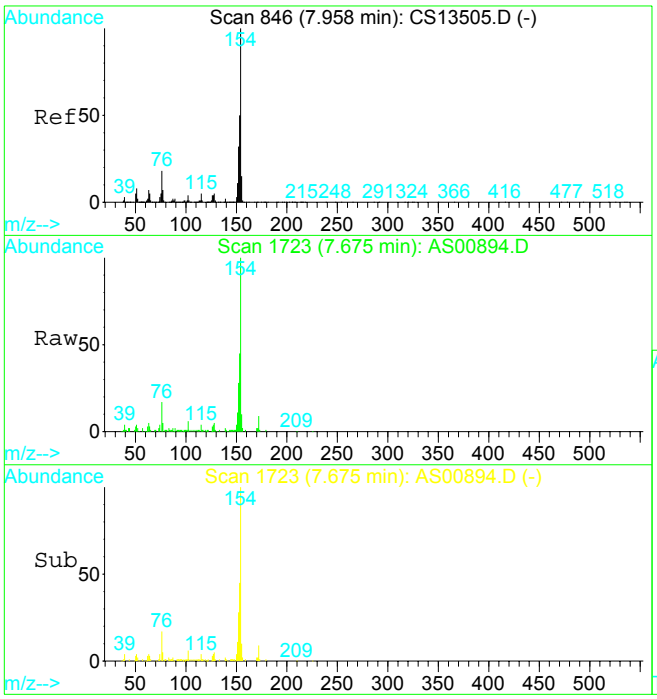
(#) = qualifier out of range (m) = manual integration
AS00894.D 0426ABNS.M Tue Jul 11 10:30:20 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00894.D Vial: 23
Acq On : 17 Jun 2017 1:39 Operator: GCH
Sample : 7060508-07 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration

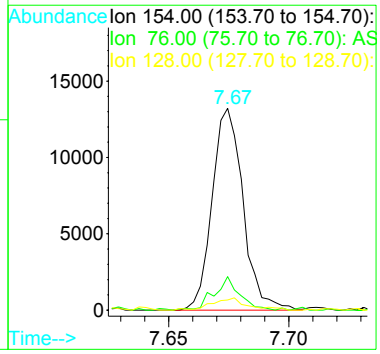


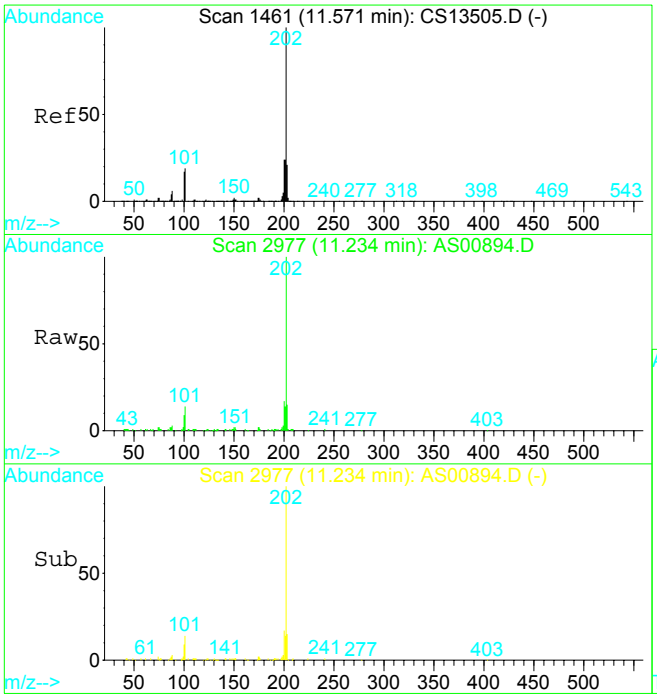


#44
Biphenyl
Concen: 0.58 ug/kg
RT: 7.67 min Scan# 1723
Delta R.T. -0.05 min
Lab File: AS00894.D
Acq: 17 Jun 2017 1:39

Tgt Ion:154 Resp: 11817

Ion	Ratio	Lower	Upper
154	100		
76	13.5	6.9	20.6
128	6.9	2.4	7.1

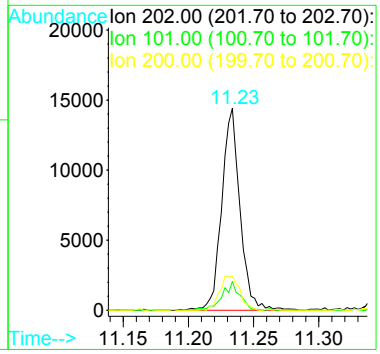




#77
Pyrene
Concen: 0.51 ug/kg
RT: 11.23 min Scan# 2977
Delta R.T. -0.04 min
Lab File: AS00894.D
Acq: 17 Jun 2017 1:39

Tgt Ion:202 Resp: 14093

Ion	Ratio	Lower	Upper
202	100		
101	13.6	7.3	21.9
200	18.8	9.8	29.4



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-4D-20170614**
Lab Sample ID: **7060508-08**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 10:06	Prep Date:	06/16/17 17:04	File ID:	AS00895.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 02:06
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00895.D Vial: 24
Acq On : 17 Jun 2017 2:06 Operator: GCH
Sample : 7060508-08 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	351830	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	1159407	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	555727	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	1005380	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	912556	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	771831	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.01	112	31	0.00	ug/kg	-0.18
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.91	99	25	0.00	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	295595	23.67	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	47.34%		
43) 2-Fluorobiphenyl	7.57	172	623140	24.10	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	48.20%		
65) 2,4,6-Tribromophenol	9.15	330	12	0.00	ug/kg	0.04
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	549351	22.63	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	45.26%		

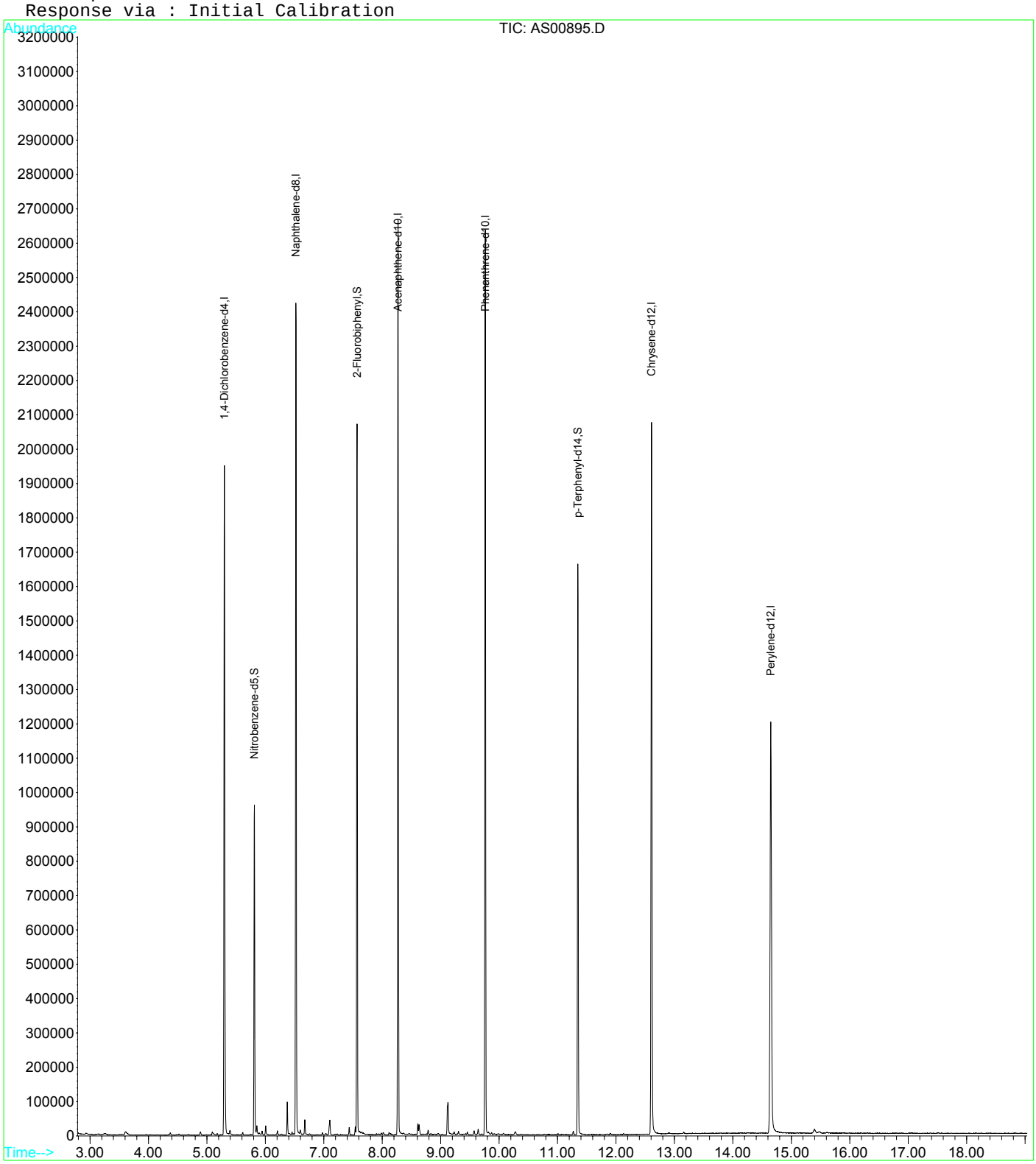
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00895.D 0426ABNS.M Tue Jun 20 11:14:21 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00895.D Vial: 24
Acq On : 17 Jun 2017 2:06 Operator: GCH
Sample : 7060508-08 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 14:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-3-20170614**
Lab Sample ID: **7060508-09**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 10:59	Prep Date:	06/16/17 17:04	File ID:	AS00914.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 01:14
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	0.918	0.301	2.00	J
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	1.06	0.371	2.00	J

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00914.D Vial: 17
Acq On : 20 Jun 2017 1:14 Operator: GCH
Sample : 7060508-09 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

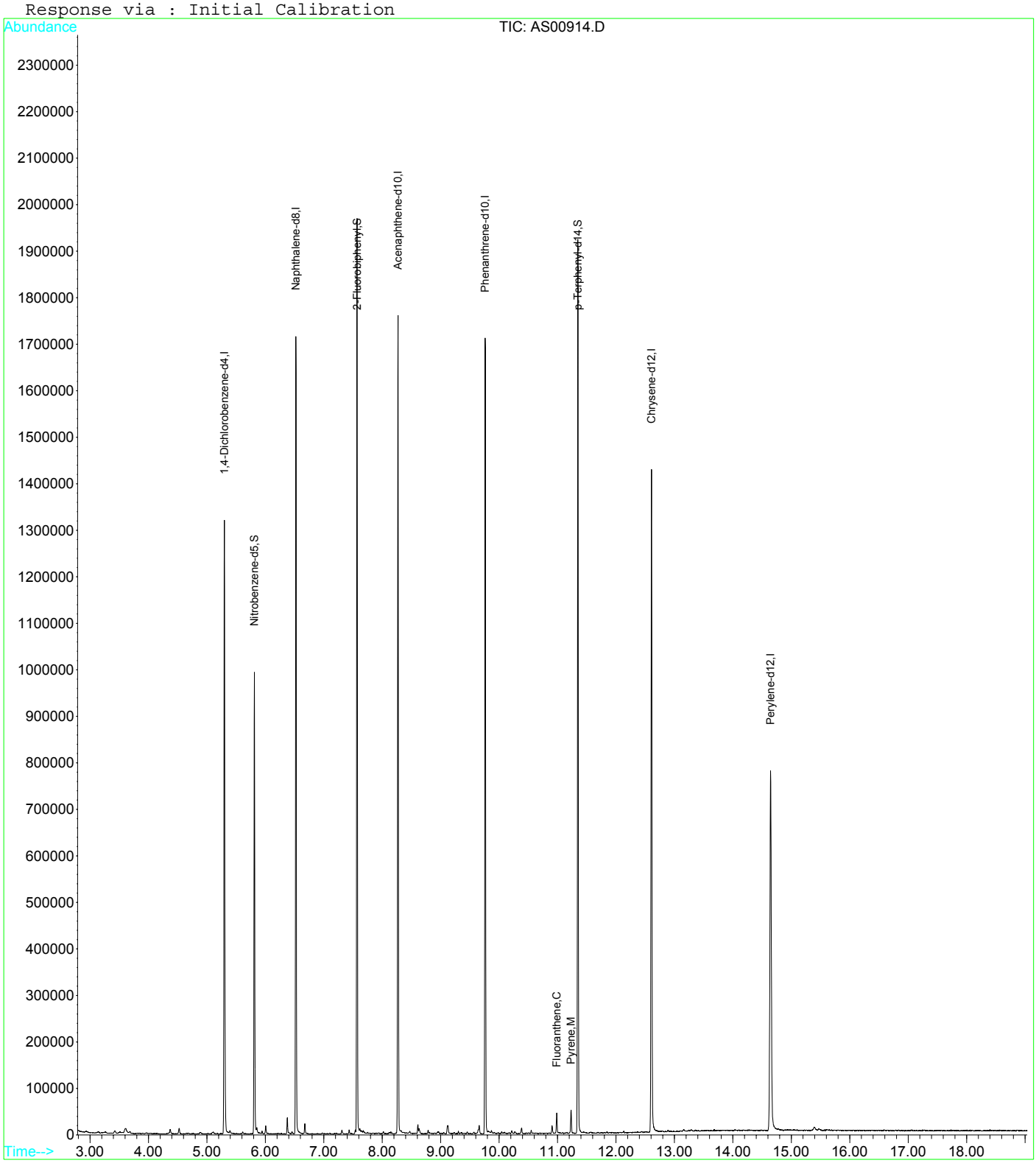
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	235054	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	780833	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	370031	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	666430	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	604482	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	498271	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.16	112	26	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
7) Phenol-d6	4.91	99	101	0.01	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.01%#			
22) Nitrobenzene-d5	5.81	82	301105	35.81	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 71.62%			
43) 2-Fluorobiphenyl	7.57	172	623523	36.22	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 72.44%			
65) 2,4,6-Tribromophenol	9.05	330	9	0.00	ug/kg	-0.06
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
78) p-Terphenyl-d14	11.35	244	637567	39.65	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 79.30%			
Target Compounds						Qvalue
74) Fluoranthene	10.99	202	18486	0.92	ug/kg	98
77) Pyrene	11.23	202	23245	1.06	ug/kg	97

(#) = qualifier out of range (m) = manual integration

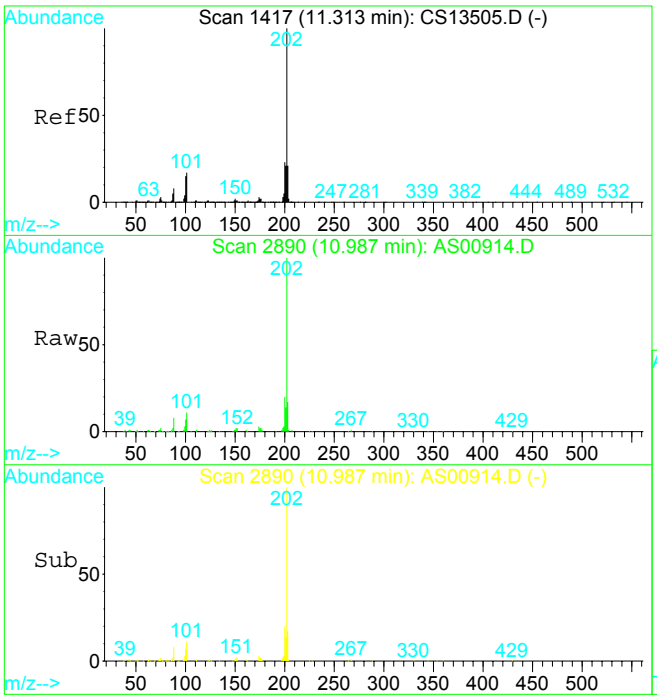
Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00914.D Vial: 17
Acq On : 20 Jun 2017 1:14 Operator: GCH
Sample : 7060508-09 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration



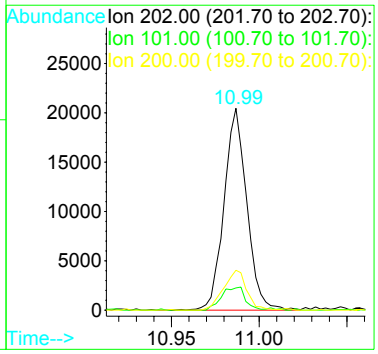
12 12.2.

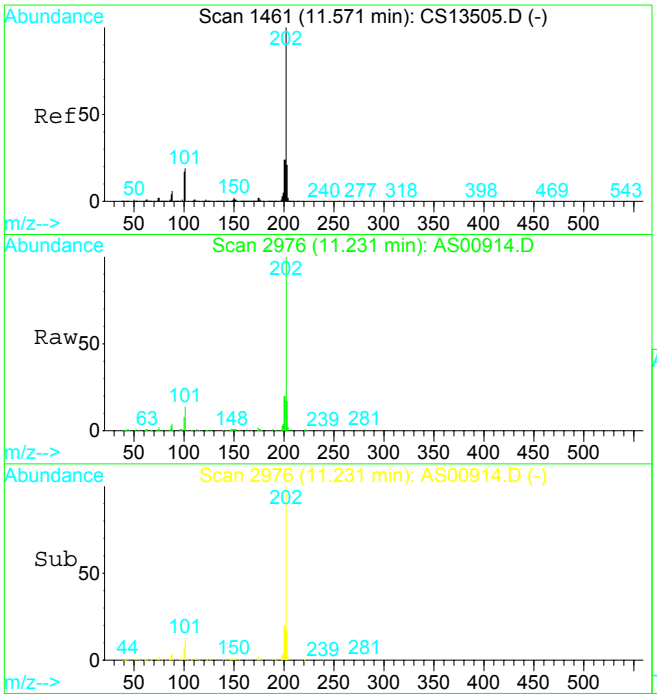


#74
Fluoranthene
Concen: 0.92 ug/kg
RT: 10.99 min Scan# 2890
Delta R.T. -0.03 min
Lab File: AS00914.D
Acq: 20 Jun 2017 1:14

Tgt Ion:202 Resp: 18486

Ion	Ratio	Lower	Upper
202	100		
101	11.9	6.3	19.1
200	20.0	9.7	28.9

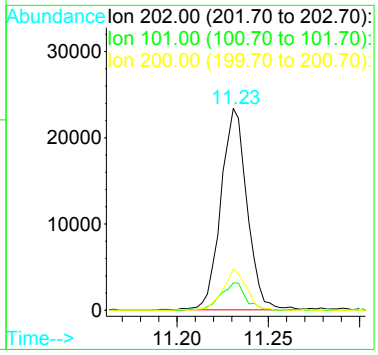




#77
Pyrene
Concen: 1.06 ug/kg
RT: 11.23 min Scan# 2976
Delta R.T. -0.05 min
Lab File: AS00914.D
Acq: 20 Jun 2017 1:14

Tgt Ion:202 Resp: 23245

Ion	Ratio	Lower	Upper
202	100		
101	13.3	7.3	21.9
200	18.4	9.8	29.4



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-9S-20170614**
Lab Sample ID: **7060508-10**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 11:51	Prep Date:	06/16/17 17:04	File ID:	AS00915.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 01:41
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	1.00	0.613	2.00	J
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	0.917	0.301	2.00	J
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	1.31	0.371	2.00	J

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00915.D Vial: 18
Acq On : 20 Jun 2017 1:41 Operator: GCH
Sample : 7060508-10 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

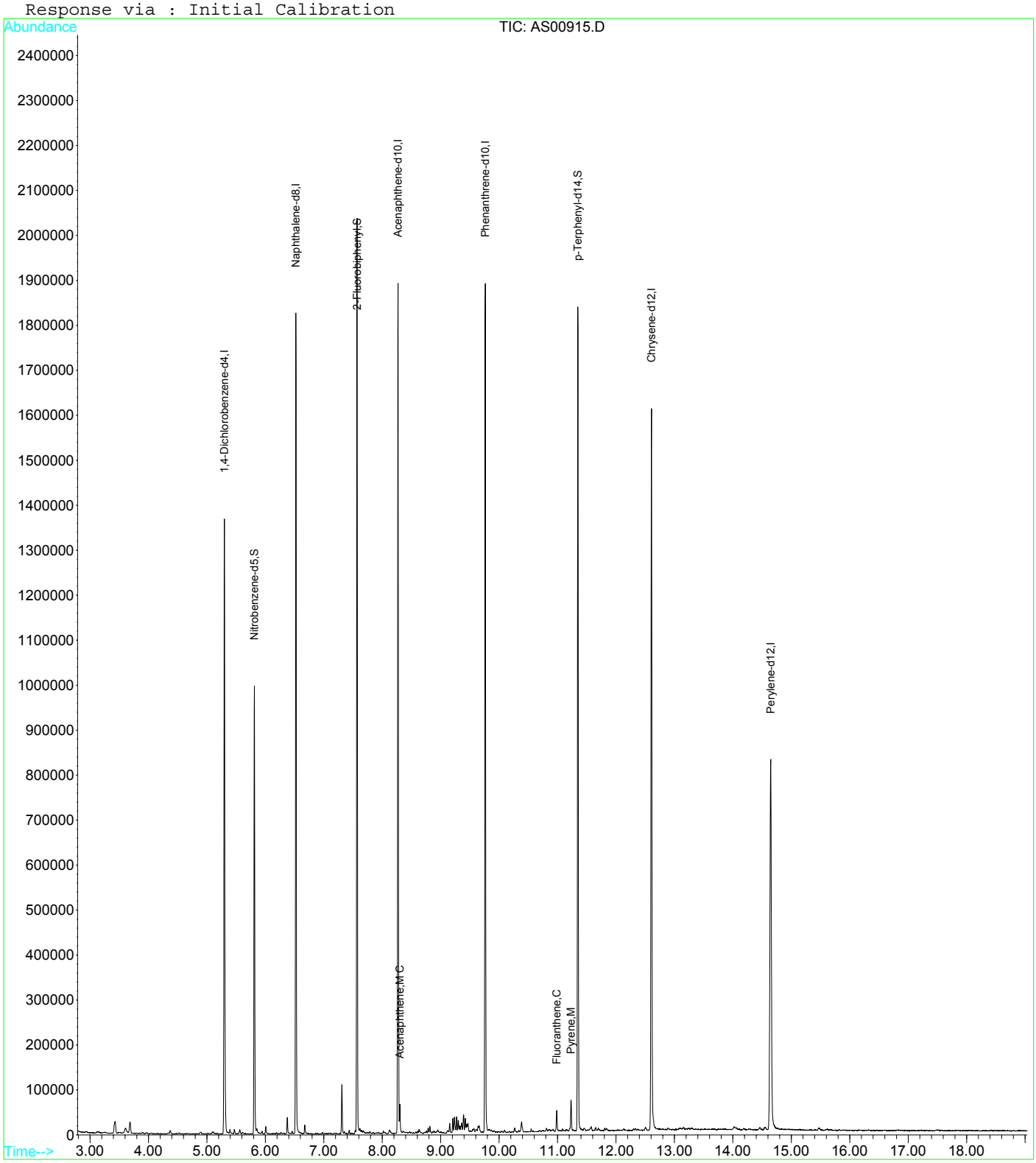
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	244371	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	830038	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	391562	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	725201	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	658861	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	544822	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.15	112	21	0.00	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	16	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	309873	34.66	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	69.32%		
43) 2-Fluorobiphenyl	7.57	172	626345	34.38	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	68.76%		
65) 2,4,6-Tribromophenol	8.99	330	11	0.01	ug/kg	-0.13
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.01%#		
78) p-Terphenyl-d14	11.35	244	631147	36.01	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	72.02%		
Target Compounds						Qvalue
51) Acenaphthene	8.30	153	14236	1.00	ug/kg	95
74) Fluoranthene	10.99	202	20099	0.92	ug/kg	99
77) Pyrene	11.23	202	31358	1.31	ug/kg	99

(#) = qualifier out of range (m) = manual integration

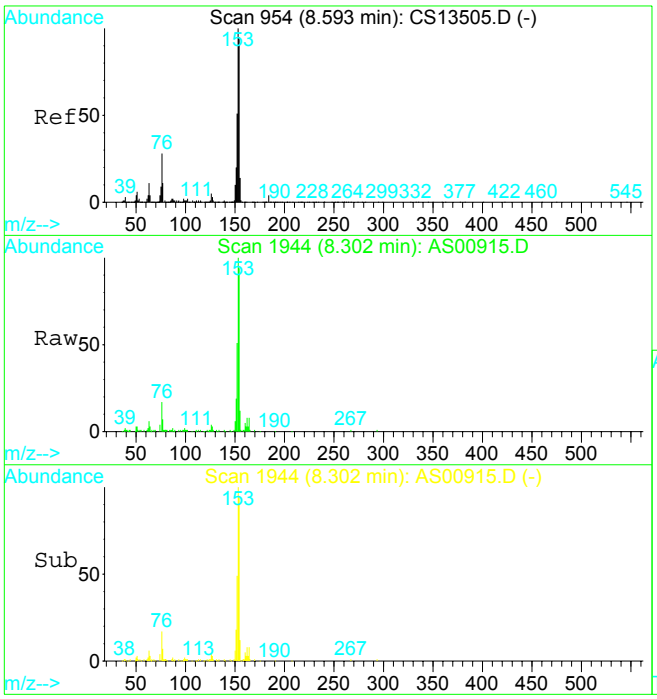
Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00915.D Vial: 18
Acq On : 20 Jun 2017 1:41 Operator: GCH
Sample : 7060508-10 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration



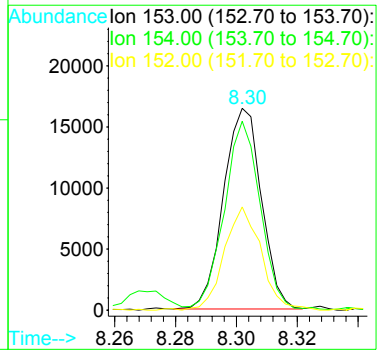
AS00915.D 0426ABNS.M Tue Jul 11 10:31:08 2017 SS Page 2

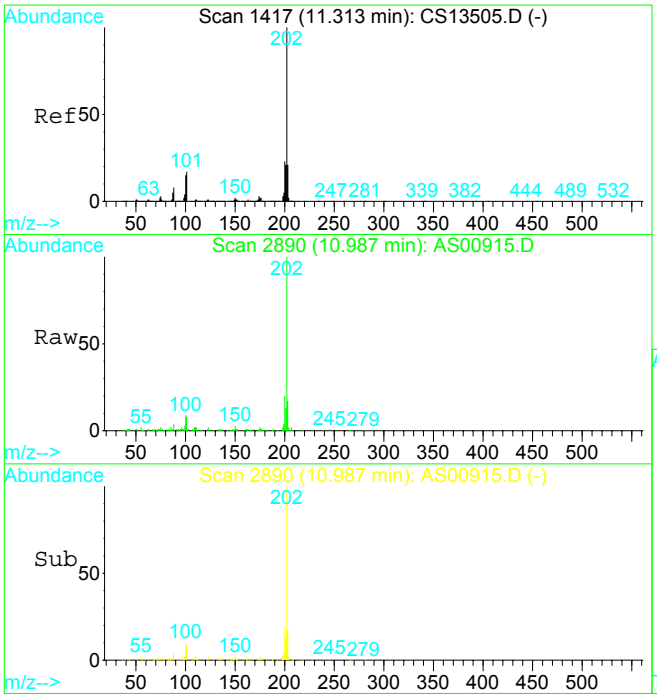


#51
Acenaphthene
Concen: 1.00 ug/kg
RT: 8.30 min Scan# 1944
Delta R.T. -0.04 min
Lab File: AS00915.D
Acq: 20 Jun 2017 1:41

Tgt Ion:153 Resp: 14236

Ion	Ratio	Lower	Upper
153	100		
154	89.5	47.4	142.2
152	50.0	23.6	71.0

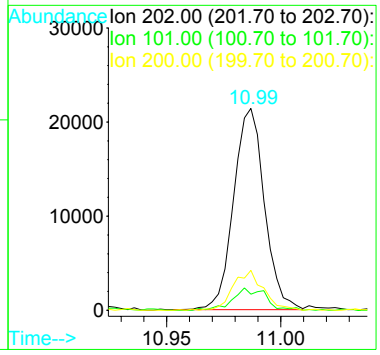


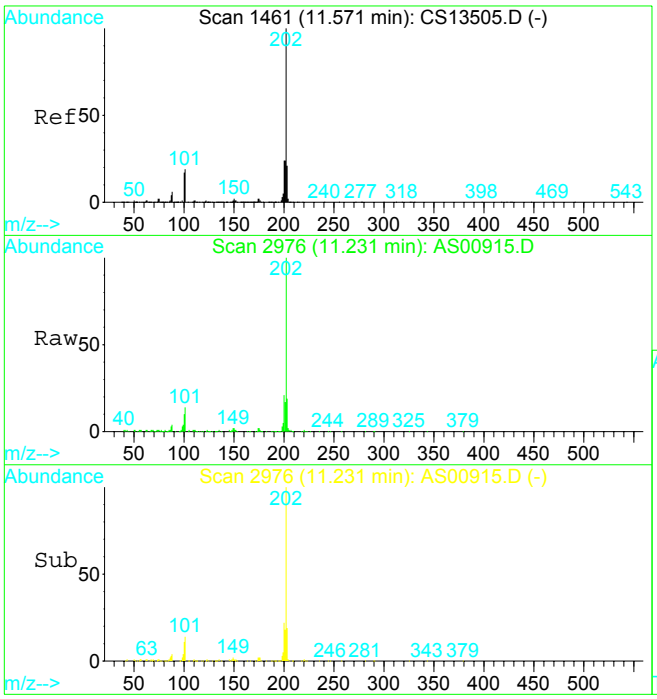


#74
Fluoranthene
Concen: 0.92 ug/kg
RT: 10.99 min Scan# 2890
Delta R.T. -0.03 min
Lab File: AS00915.D
Acq: 20 Jun 2017 1:41

Tgt Ion:202 Resp: 20099

Ion	Ratio	Lower	Upper
202	100		
101	11.8	6.3	19.1
200	19.6	9.7	28.9

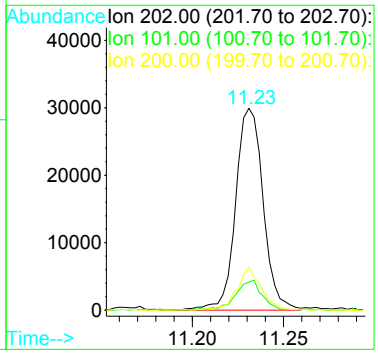




#77
Pyrene
Concen: 1.31 ug/kg
RT: 11.23 min Scan# 2976
Delta R.T. -0.05 min
Lab File: AS00915.D
Acq: 20 Jun 2017 1:41

Tgt Ion:202 Resp: 31358

Ion	Ratio	Lower	Upper
202	100		
101	14.6	7.3	21.9
200	18.8	9.8	29.4



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **FB-20170614**
Lab Sample ID: **7060508-11**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 12:00	Prep Date:	06/16/17 17:04	File ID:	AS00916.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 02:08
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00916.D Vial: 19
Acq On : 20 Jun 2017 2:08 Operator: GCH
Sample : 7060508-11 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	269465	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	894839	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	427853	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	784322	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	707463	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	586183	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	25	0.00	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	9	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	293705	30.48	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	60.96%		
43) 2-Fluorobiphenyl	7.57	172	604491	30.37	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	60.74%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	640339	34.03	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	68.06%		

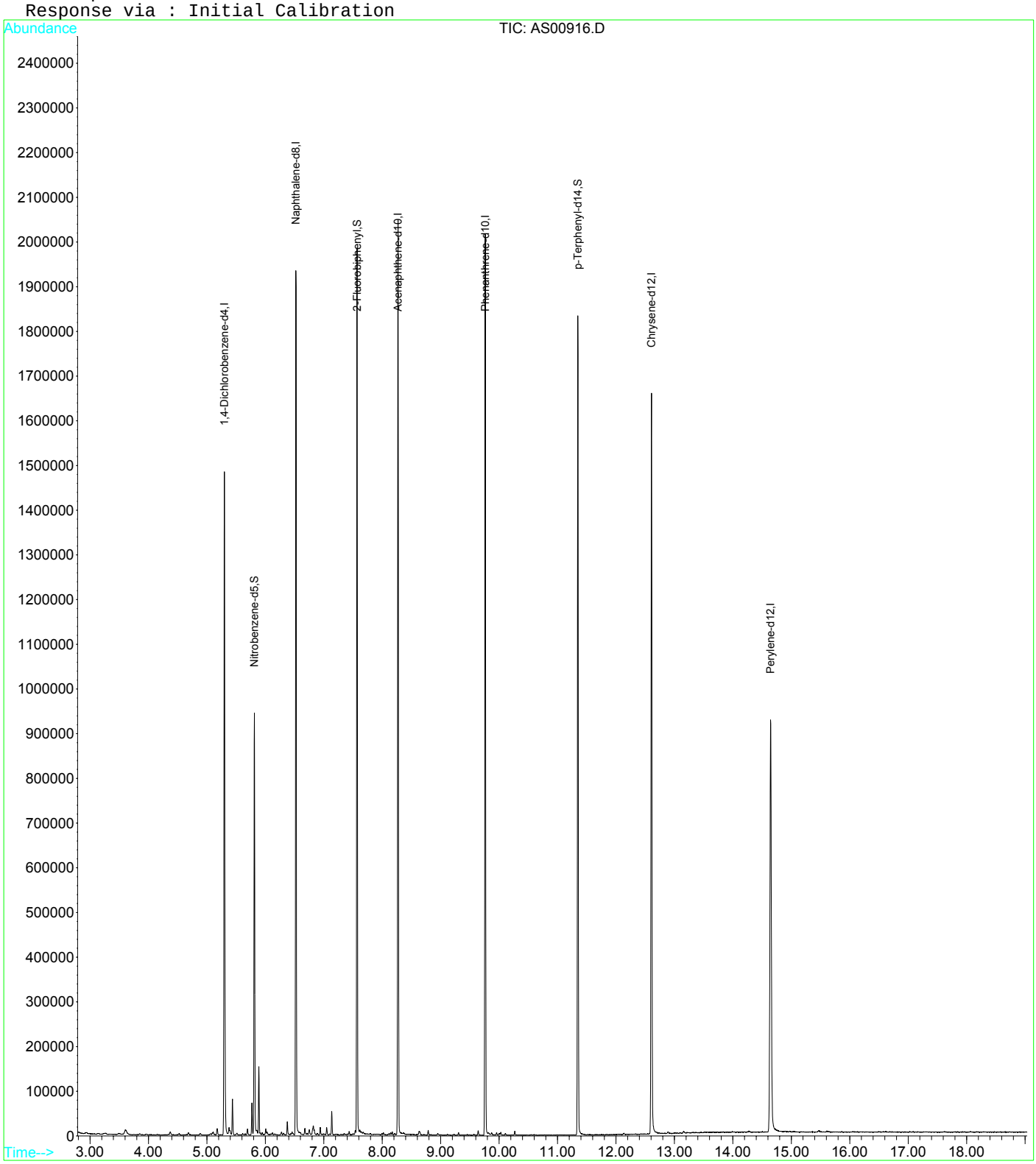
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00916.D 0426ABNS.M Tue Jun 20 12:25:22 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00916.D Vial: 19
Acq On : 20 Jun 2017 2:08 Operator: GCH
Sample : 7060508-11 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-9D-20170614**
Lab Sample ID: **7060508-12**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 12:33	Prep Date:	06/16/17 17:04	File ID:	AS00917.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 02:35
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00917.D Vial: 20
Acq On : 20 Jun 2017 2:35 Operator: GCH
Sample : 7060508-12 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	235373	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.52	136	789998	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	379265	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	695686	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	637579	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	524619	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.07	112	16	0.00	ug/kg	-0.13
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	4.92	99	24	0.00	ug/kg	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	285902	33.60	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery =	67.20%		
43) 2-Fluorobiphenyl	7.57	172	610765	34.61	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery =	69.22%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	599640	35.36	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	70.72%		

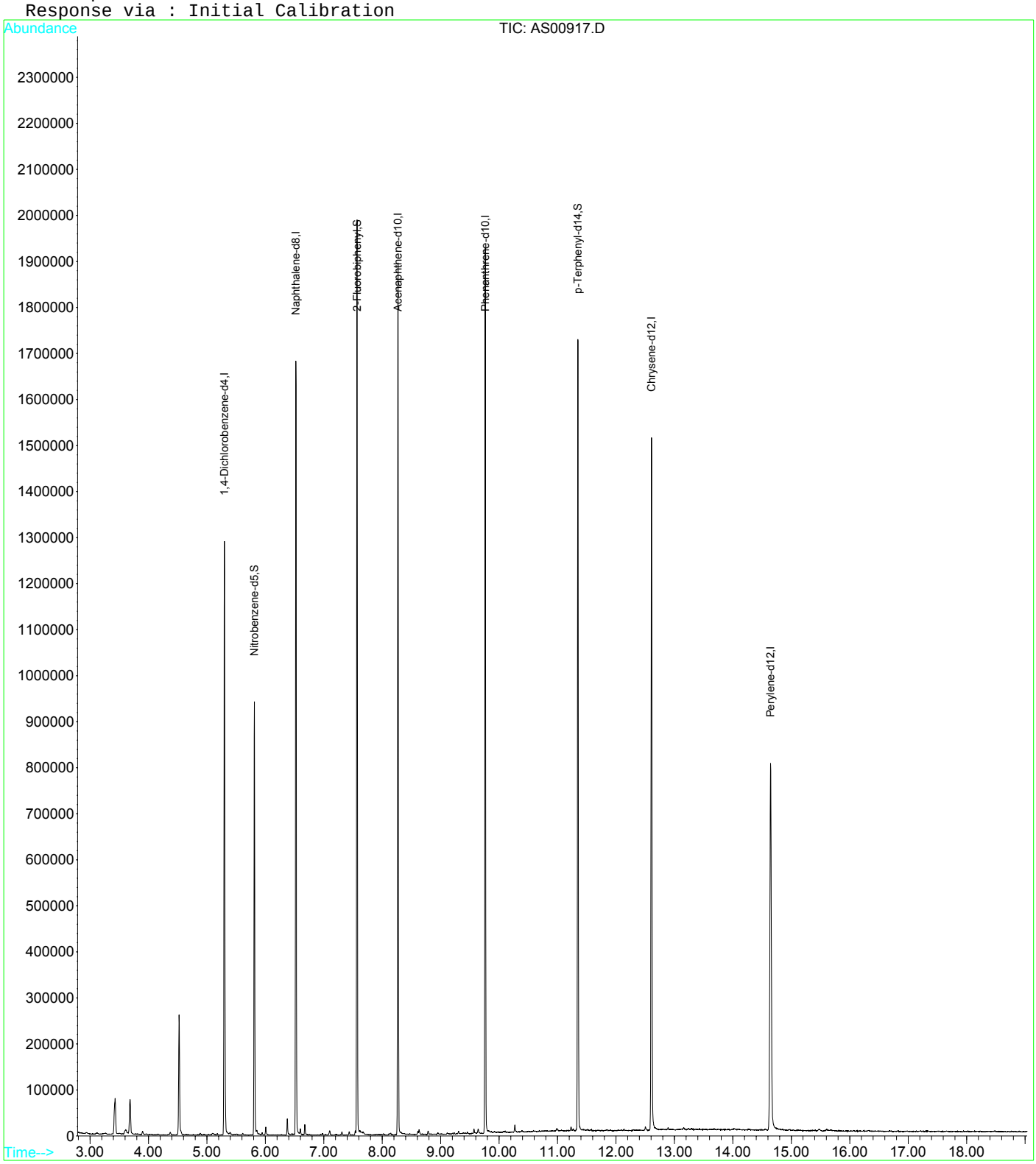
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
AS00917.D 0426ABNS.M Tue Jun 20 12:25:25 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00917.D Vial: 20
Acq On : 20 Jun 2017 2:35 Operator: GCH
Sample : 7060508-12 Inst : GCMS-A
Misc : B7F1527 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:09 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



SURROGATE RECOVERIES

Analysis Class: SEMIVOLATILES

Matrix: Ground Water **Method:** SW 846 8270C

Lab Number	File ID	NBZ	FPB	TER-D14
7060508-01	AS00888.D	38.3	41.0	39.1
7060508-02	AS00889.D	43.6	45.6	39.5
7060508-03	AS00890.D	44.6	48.9	46.4
7060508-04	AS00891.D	61.9	66.2	63.4
7060508-05	AS00892.D	59.9	62.2	63.5
7060508-06	AS00893.D	64.7	65.6	55.5
7060508-07	AS00894.D	57.6	59.5	60.5
7060508-08	AS00895.D	47.3	48.2	45.3
7060508-09	AS00914.D	71.6	72.4	79.3
7060508-10	AS00915.D	69.3	68.8	72.0
7060508-11	AS00916.D	61.0	60.7	68.1
7060508-12	AS00917.D	67.2	69.2	70.7
B7F1527-BLK1	AS00875.D	66.2	65.9	82.3
B7F1527-BLK3	AS00901.D	66.2	65.2	77.8
B7F1527-BS1	AS00876.D	73.9	75.8	89.2
B7F1527-BS2	AS00902.D	90.7	81.6	93.7
B7F1527-MS1	AS00935.D	78.5	74.4	63.8
B7F1527-MSD1	AS00936.D	81.8	78.8	67.7

Surrogate Limits		Lo Limit	Hi Limit
NBZ	Nitrobenzene-d5	30	130
FPB	2-Fluorobiphenyl	30	130
TER-D14	p-Terphenyl-d14	30	130

F-II

* - Outside of QC Limits

Batch B7F1527 **Method: SW 846 8270C** **Prepared: 06/15/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F1527-BS1		Acenaphthene	42.2	ug/L	50.0		84.4	70-130		
B7F1527-BS1		Acenaphthylene	45.6	ug/L	50.0		91.2	70-130		
B7F1527-BS1		Anthracene	50.2	ug/L	50.0		100	70-130		
B7F1527-BS1		Benzo(a)anthracene	51.7	ug/L	50.0		103	70-130		
B7F1527-BS1		Benzo(a)pyrene	54.3	ug/L	50.0		109	70-130		
B7F1527-BS1		Benzo(b)fluoranthene	53.6	ug/L	50.0		107	70-130		
B7F1527-BS1		Benzo(g,h,i)perylene	57.2	ug/L	50.0		114	70-130		
B7F1527-BS1		Benzo(k)fluoranthene	52.8	ug/L	50.0		106	70-130		
B7F1527-BS1		Chrysene	49.5	ug/L	50.0		99.1	70-130		
B7F1527-BS1		Dibenzo(a,h)anthracene	57.6	ug/L	50.0		115	70-130		
B7F1527-BS1		Fluoranthene	52.1	ug/L	50.0		104	70-130		
B7F1527-BS1		Fluorene	46.3	ug/L	50.0		92.5	70-130		
B7F1527-BS1		Indeno(1,2,3-cd)pyrene	56.5	ug/L	50.0		113	70-130		
B7F1527-BS1		Naphthalene	37.5	ug/L	50.0		75.0	70-130		
B7F1527-BS1		Phenanthrene	49.6	ug/L	50.0		99.2	70-130		
B7F1527-BS1		Pyrene	49.1	ug/L	50.0		98.1	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00876.D Vial: 5
Acq On : 16 Jun 2017 17:40 Operator: GCH
Sample : B7F1527-BS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:44 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Tue Jun 20 10:42:43 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	237229	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.53	136	796789	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	377193	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	710026	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	650466	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	551938	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	300406	33.04	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 33.04%			
7) Phenol-d6	4.91	99	237832	22.48	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 22.48%#			
22) Nitrobenzene-d5	5.81	82	316910	36.93	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 73.86%			
43) 2-Fluorobiphenyl	7.57	172	664999	37.89	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 75.78%			
65) 2,4,6-Tribromophenol	9.06	330	206478	103.04	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 103.04%			
78) p-Terphenyl-d14	11.35	244	772033	44.62	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 89.24%			
Target Compounds						Qvalue
2) Pyridine	3.03	79	58525m	6.32	ng/uL	
3) N-Nitroso-dimethylamine	2.99	42	56390m	16.02	ng/uL	
5) Benzaldehyde	4.90	77	235343	56.38	ug/kg	91
6) Aniline	4.99	93	226752	21.76	ug/kg	97
8) Phenol	4.92	94	130456	13.19	ug/kg	93
9) bis(2-Chloroethyl)ether	5.02	93	278001m	35.62	ug/kg	
10) 2-Chlorophenol	5.11	128	286582m	34.37	ug/kg	
11) 1,3-Dichlorobenzene	5.25	146	314881	36.25	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	323393m	35.77	ug/kg	
13) Benzyl Alcohol	5.40	108	131823	26.46	ug/kg	100
14) 1,2-Dichlorobenzene	5.46	146	307156	37.38	ug/kg	99
15) 2-Methylphenol	5.49	108	221004	32.84	ug/kg	99
16) bis(2-Chloroisopropyl)ethe	5.52	45	357563m	36.26	ug/kg	
17) Acetophenone	5.66	105	401130	41.98	ug/kg	90
18) 3+4-Methylphenol	5.63	108	208167	28.82	ug/kg	90
19) n-Nitroso-di-n-propylamine	5.64	70	151832	37.45	ug/kg	92
20) Hexachloroethane	5.79	117	157233m	46.52	ug/kg	
23) Nitrobenzene	5.83	77	286702	36.37	ug/kg	94
24) Isophorone	6.05	82	515207	41.00	ug/kg	98
25) 2-Nitrophenol	6.14	139	157936	42.50	ug/kg	100
26) 2,4-Dimethylphenol	6.14	107	252287	36.77	ug/kg	98
27) bis(2-Chloroethoxy)methane	6.23	93	312689	39.24	ug/kg	96
28) 2,4-Dichlorophenol	6.37	162	250904	41.54	ug/kg	98
30) 1,2,4-Trichlorobenzene	6.46	180	292285	37.44	ug/kg	99
31) Naphthalene	6.54	128	841212	37.48	ug/kg	99
33) 4-Chloroaniline	6.57	127	310213	40.12	ug/kg	97
34) Hexachlorobutadiene	6.65	225	171715	37.64	ug/kg	99
35) Caprolactam	6.89	113	16089	8.36	ug/kg	92
36) 4-Chloro-3-methylphenol	7.02	107	237054	43.00	ug/kg	95
37) 2-Methylnaphthalene	7.22	142	579124	40.83	ug/kg	98
39) Hexachlorocyclopentadiene	7.38	237	152384	36.37	ug/kg	100
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	341360	42.12	ug/kg	99
41) 2,4,6-Trichlorophenol	7.49	196	192200m	45.51	ug/kg	
42) 2,4,5-Trichlorophenol	7.53	196	207165	45.18	ug/kg	99
44) Biphenyl	7.67	154	754265	44.46	ug/kg	96
45) 2-Chloronaphthalene	7.71	162	566789	41.97	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00876.D Vial: 5
Acq On : 16 Jun 2017 17:40 Operator: GCH
Sample : B7F1527-BS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:44 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Tue Jun 20 10:42:43 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

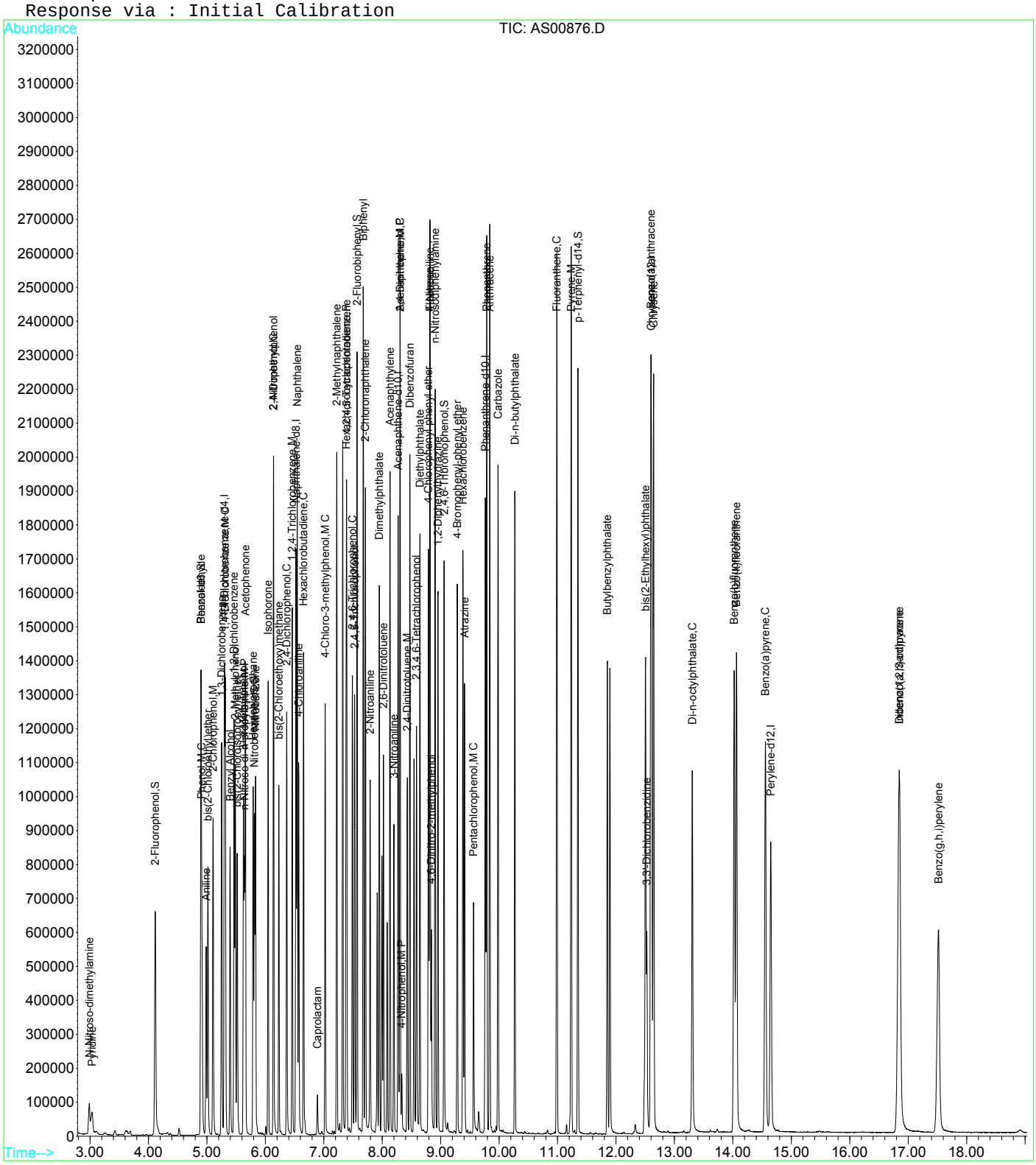
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	2-Nitroaniline	7.79	138	205217	52.94	ug/kg	92
47)	Dimethylphthalate	7.95	163	635495	47.55	ug/kg	97
48)	Acenaphthylene	8.13	152	865366	45.60	ug/kg	99
49)	2,6-Dinitrotoluene	8.02	165	157134	59.58	ug/kg	93
50)	3-Nitroaniline	8.20	138	151629	72.04	ug/kg	91
51)	Acenaphthene	8.30	153	578865	42.19	ug/kg	100
52)	2,4-Dinitrophenol	8.30	184	35121	52.23	ug/kg	22
53)	Dibenzofuran	8.47	168	832014	45.26	ug/kg	99
54)	4-Nitrophenol	8.33	65	23079	12.62	ug/kg	87
55)	2,4-Dinitrotoluene	8.43	165	205023	54.32	ug/kg	92
56)	2,3,4,6-Tetrachlorophenol	8.59	232	167320	53.34	ug/kg	96
57)	Fluorene	8.82	166	680388	46.26	ug/kg	100
58)	Diethylphthalate	8.65	149	614664	50.64	ug/kg	100
59)	4-Chlorophenyl phenyl ethe	8.79	204	348023	49.16	ug/kg	99
60)	4-Nitroaniline	8.81	138	119607m	71.26	ug/kg	
62)	4,6-Dinitro-2-methylphenol	8.84	198	96140	57.17	ug/kg	93
63)	n-Nitrosodiphenylamine	8.91	169	565217	58.92	ug/kg	99
64)	1,2-Diphenylhydrazine	8.95	77	523737	41.61	ug/kg	95
66)	4-Bromophenyl-phenyl ether	9.28	248	223301	51.87	ug/kg	98
67)	Hexachlorobenzene	9.38	284	235692	50.86	ug/kg	99
68)	Atrazine	9.41	200	161364	50.83	ug/kg	91
69)	Pentachlorophenol	9.56	266	78667	30.71	ug/kg	99
70)	Phenanthrene	9.79	178	999685	49.58	ug/kg	99
71)	Anthracene	9.84	178	1008885	50.17	ug/kg	100
72)	Carbazole	9.98	167	807407	63.80	ug/kg#	92
73)	Di-n-butylphthalate	10.27	149	932349	52.91	ug/kg	98
74)	Fluoranthene	10.99	202	1118380	52.12	ug/kg	98
77)	Pyrene	11.23	202	1157715	49.06	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	377909	56.92	ug/kg	96
80)	Benzo(a)anthracene	12.60	228	991996	51.70	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	158483	43.36	ug/kg	100
82)	Chrysene	12.64	228	949012	49.53	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.51	149	479605	56.07	ug/kg	99
85)	Di-n-octylphthalate	13.31	149	706883	54.65	ug/kg	100
86)	Benzo(b)fluoranthene	14.02	252	846335	53.59	ug/kg	98
87)	Benzo(k)fluoranthene	14.06	252	900875m	52.82	ug/kg	
88)	Benzo(a)pyrene	14.56	252	819379	54.26	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.84	276	848892	56.53	ug/kg	100
90)	Dibenzo(a,h)anthracene	16.85	278	697955	57.63	ug/kg	99
91)	Benzo(g,h,i)perylene	17.52	276	720755	57.15	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00876.D Vial: 5
Acq On : 16 Jun 2017 17:40 Operator: GCH
Sample : B7F1527-BS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:44 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



Batch B7F1527 **Method: SW 846 8270C** **Prepared: 06/16/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F1527-BS2		Acenaphthene	45.7	ug/L	50.0		91.5	70-130		
B7F1527-BS2		Acenaphthylene	49.2	ug/L	50.0		98.4	70-130		
B7F1527-BS2		Anthracene	52.3	ug/L	50.0		105	70-130		
B7F1527-BS2		Benzo(a)anthracene	52.6	ug/L	50.0		105	70-130		
B7F1527-BS2		Benzo(a)pyrene	54.6	ug/L	50.0		109	70-130		
B7F1527-BS2		Benzo(b)fluoranthene	56.4	ug/L	50.0		113	70-130		
B7F1527-BS2		Benzo(g,h,i)perylene	57.1	ug/L	50.0		114	70-130		
B7F1527-BS2		Benzo(k)fluoranthene	53.8	ug/L	50.0		108	70-130		
B7F1527-BS2		Chrysene	50.7	ug/L	50.0		101	70-130		
B7F1527-BS2		Dibenzo(a,h)anthracene	57.5	ug/L	50.0		115	70-130		
B7F1527-BS2		Fluoranthene	52.9	ug/L	50.0		106	70-130		
B7F1527-BS2		Fluorene	48.3	ug/L	50.0		96.6	70-130		
B7F1527-BS2		Indeno(1,2,3-cd)pyrene	56.3	ug/L	50.0		113	70-130		
B7F1527-BS2		Naphthalene	44.2	ug/L	50.0		88.4	70-130		
B7F1527-BS2		Phenanthrene	51.9	ug/L	50.0		104	70-130		
B7F1527-BS2		Pyrene	51.1	ug/L	50.0		102	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00902.D Vial: 5
Acq On : 19 Jun 2017 19:47 Operator: GCH
Sample : B7F1527-BS2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Tue Jun 20 10:42:43 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	216685	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.53	136	729825	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	352038	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	659262	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	591712	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	501174	40.00	ug/kg	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	376441	45.33	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 45.33%			
7) Phenol-d6	4.91	99	277943	28.76	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 28.76%#			
22) Nitrobenzene-d5	5.81	82	356393	45.34	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 90.68%			
43) 2-Fluorobiphenyl	7.57	172	668216	40.80	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 81.60%			
65) 2,4,6-Tribromophenol	9.06	330	203417	109.33	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 109.33%			
78) p-Terphenyl-d14	11.35	244	737278	46.84	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 93.68%			
Target Compounds						Qvalue
2) Pyridine	3.04	79	42763	5.06	ng/uL	86
3) N-Nitroso-dimethylamine	2.99	42	59998	18.67	ng/uL	94
5) Benzaldehyde	4.90	77	273312	71.68	ug/kg	90
6) Aniline	4.99	93	216236	22.71	ug/kg	99
8) Phenol	4.92	94	151730	16.80	ug/kg	93
9) bis(2-Chloroethyl)ether	5.02	93	313472	43.97	ug/kg	96
10) 2-Chlorophenol	5.11	128	333545	43.79	ug/kg	96
11) 1,3-Dichlorobenzene	5.25	146	366886	46.24	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	373873m	45.27	ug/kg	
13) Benzyl Alcohol	5.40	108	147864	32.50	ug/kg	99
14) 1,2-Dichlorobenzene	5.47	146	356379	47.48	ug/kg	99
15) 2-Methylphenol	5.49	108	246017	40.02	ug/kg	99
16) bis(2-Chloroisopropyl)ethe	5.52	45	384778	42.72	ug/kg	97
17) Acetophenone	5.66	105	448574	51.39	ug/kg	89
18) 3+4-Methylphenol	5.63	108	230293	34.90	ug/kg	90
19) n-Nitroso-di-n-propylamine	5.64	70	167098	45.12	ug/kg	92
20) Hexachloroethane	5.79	117	132719	42.99	ug/kg	98
23) Nitrobenzene	5.83	77	319384	44.23	ug/kg	94
24) Isophorone	6.05	82	555989	48.31	ug/kg	98
25) 2-Nitrophenol	6.14	139	173004	50.82	ug/kg	97
26) 2,4-Dimethylphenol	6.14	107	224117m	35.66	ug/kg	
27) bis(2-Chloroethoxy)methane	6.23	93	344154	47.16	ug/kg	95
28) 2,4-Dichlorophenol	6.37	162	272813	49.31	ug/kg	99
30) 1,2,4-Trichlorobenzene	6.46	180	315900	44.17	ug/kg	99
31) Naphthalene	6.54	128	908611	44.20	ug/kg	99
33) 4-Chloroaniline	6.57	127	301968	42.64	ug/kg	97
34) Hexachlorobutadiene	6.65	225	184372	44.12	ug/kg	99
35) Caprolactam	6.89	113	15854	9.00	ug/kg	95
36) 4-Chloro-3-methylphenol	7.02	107	250331	49.57	ug/kg	94
37) 2-Methylnaphthalene	7.22	142	603334	46.44	ug/kg	99
39) Hexachlorocyclopentadiene	7.38	237	133643	34.17	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	355375	46.99	ug/kg	100
41) 2,4,6-Trichlorophenol	7.49	196	199473	50.60	ug/kg	98
42) 2,4,5-Trichlorophenol	7.53	196	208776	48.78	ug/kg	97
44) Biphenyl	7.68	154	785166	49.59	ug/kg	97
45) 2-Chloronaphthalene	7.71	162	589231	46.75	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00902.D Vial: 5
Acq On : 19 Jun 2017 19:47 Operator: GCH
Sample : B7F1527-BS2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:20 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Tue Jun 20 10:42:43 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

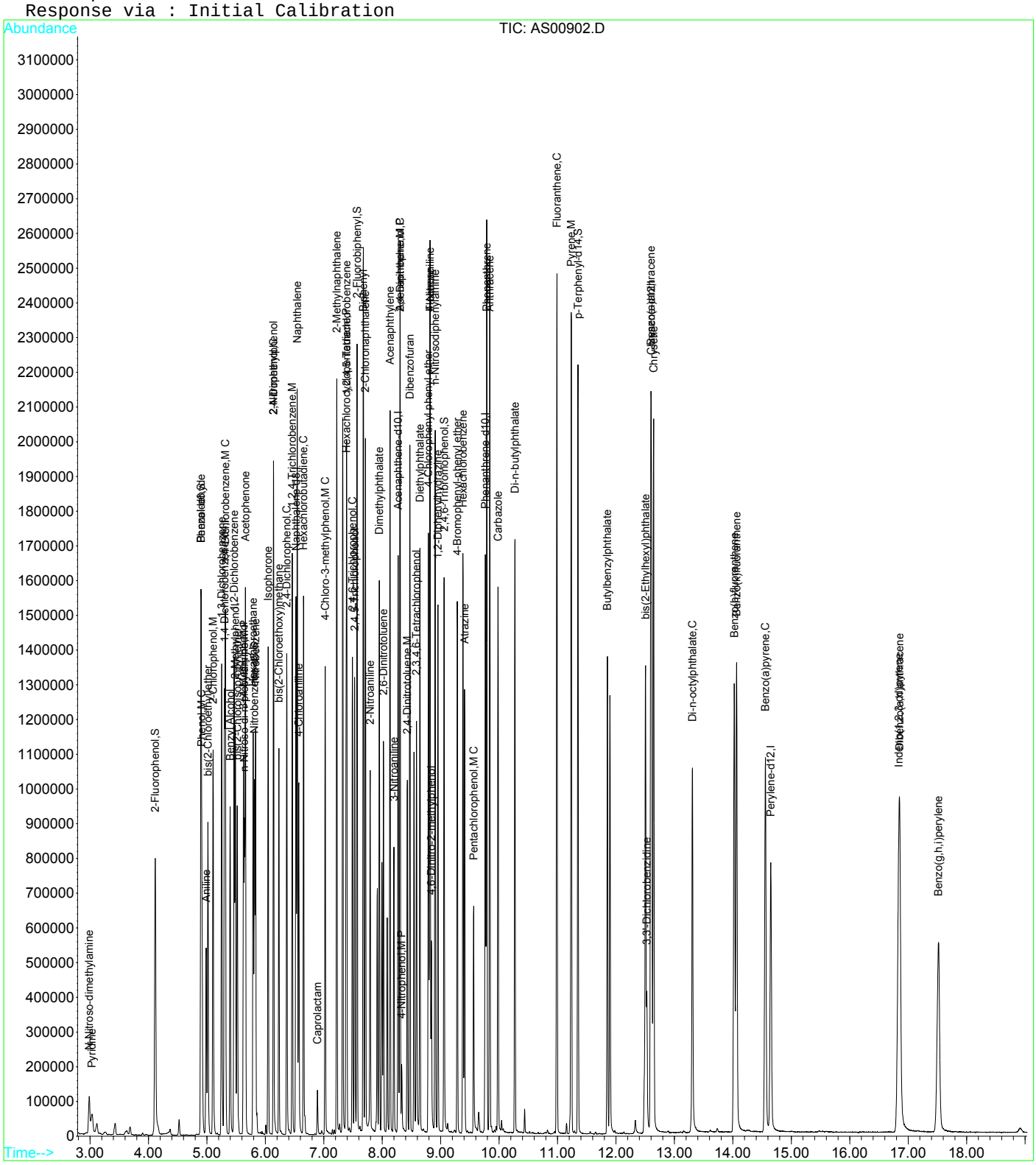
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	2-Nitroaniline	7.79	138	203503	56.25	ug/kg	93
47)	Dimethylphthalate	7.95	163	628834	50.41	ug/kg	97
48)	Acenaphthylene	8.13	152	871353	49.19	ug/kg	100
49)	2,6-Dinitrotoluene	8.02	165	154696	62.85	ug/kg	91
50)	3-Nitroaniline	8.20	138	133479m	67.95	ug/kg	
51)	Acenaphthene	8.30	153	585539	45.73	ug/kg	100
52)	2,4-Dinitrophenol	8.30	184	24711	44.86	ug/kg	46
53)	Dibenzofuran	8.47	168	835357	48.69	ug/kg	99
54)	4-Nitrophenol	8.33	65	25162	14.75	ug/kg	90
55)	2,4-Dinitrotoluene	8.43	165	194940	55.33	ug/kg	92
56)	2,3,4,6-Tetrachlorophenol	8.59	232	163765	55.94	ug/kg	97
57)	Fluorene	8.82	166	662873	48.29	ug/kg	99
58)	Diethylphthalate	8.65	149	596344	52.64	ug/kg	100
59)	4-Chlorophenyl phenyl ethe	8.79	204	340414	51.52	ug/kg	100
60)	4-Nitroaniline	8.81	138	97152m	62.02	ug/kg	
62)	4,6-Dinitro-2-methylphenol	8.84	198	81932	54.04	ug/kg	95
63)	n-Nitrosodiphenylamine	8.91	169	528070	59.28	ug/kg	100
64)	1,2-Diphenylhydrazine	8.95	77	518997	44.41	ug/kg	95
66)	4-Bromophenyl-phenyl ether	9.28	248	216145	54.08	ug/kg	97
67)	Hexachlorobenzene	9.38	284	226325	52.60	ug/kg	99
68)	Atrazine	9.41	200	150821	51.16	ug/kg	91
69)	Pentachlorophenol	9.56	266	77097	32.42	ug/kg	99
70)	Phenanthrene	9.79	178	971459	51.89	ug/kg	99
71)	Anthracene	9.84	178	975865	52.27	ug/kg	100
72)	Carbazole	9.98	167	681021	57.95	ug/kg#	89
73)	Di-n-butylphthalate	10.27	149	907530	55.47	ug/kg	98
74)	Fluoranthene	10.99	202	1054819	52.94	ug/kg	99
77)	Pyrene	11.23	202	1096787	51.09	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	363811	60.24	ug/kg	95
80)	Benzo(a)anthracene	12.60	228	918889	52.65	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	109748m	33.01	ug/kg	
82)	Chrysene	12.64	228	882842	50.65	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.51	149	459473	59.05	ug/kg	99
85)	Di-n-octylphthalate	13.31	149	691751	58.90	ug/kg	100
86)	Benzo(b)fluoranthene	14.02	252	808089	56.35	ug/kg	98
87)	Benzo(k)fluoranthene	14.06	252	832729m	53.77	ug/kg	
88)	Benzo(a)pyrene	14.56	252	748380	54.58	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.83	276	768324	56.34	ug/kg	99
90)	Dibenzo(a,h)anthracene	16.86	278	632655	57.53	ug/kg	99
91)	Benzo(g,h,i)perylene	17.52	276	653543	57.07	ug/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00902.D Vial: 5
Acq On : 19 Jun 2017 19:47 Operator: GCH
Sample : B7F1527-BS2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:20 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



Batch B7F1527 **Method: SW 846 8270C** **Prepared: 06/15/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F1527-MS1	7060508-03	Acenaphthene	83.9	ug/L	100	ND	83.9	70-130		
B7F1527-MS1	7060508-03	Acenaphthylene	89.4	ug/L	100	ND	89.4	70-130		
B7F1527-MS1	7060508-03	Anthracene	93.3	ug/L	100	ND	93.3	70-130		
B7F1527-MS1	7060508-03	Benzo(a)anthracene	79.4	ug/L	100	ND	79.4	70-130		
B7F1527-MS1	7060508-03	Benzo(a)pyrene	70.7	ug/L	100	ND	70.7	70-130		
B7F1527-MS1	7060508-03	Benzo(b)fluoranthene	71.6	ug/L	100	ND	71.6	70-130		
B7F1527-MS1	7060508-03	Benzo(g,h,i)perylene	60.2	ug/L	100	ND	60.2*	70-130		
B7F1527-MS1	7060508-03	Benzo(k)fluoranthene	65.8	ug/L	100	ND	65.8*	70-130		
B7F1527-MS1	7060508-03	Chrysene	84.9	ug/L	100	ND	84.9	70-130		
B7F1527-MS1	7060508-03	Dibenzo(a,h)anthracene	59.4	ug/L	100	ND	59.4*	70-130		
B7F1527-MS1	7060508-03	Fluoranthene	92.9	ug/L	100	ND	92.9	70-130		
B7F1527-MS1	7060508-03	Fluorene	86.4	ug/L	100	ND	86.4	70-130		
B7F1527-MS1	7060508-03	Indeno(1,2,3-cd)pyrene	59.8	ug/L	100	ND	59.8*	70-130		
B7F1527-MS1	7060508-03	Naphthalene	82.1	ug/L	100	ND	82.1	70-130		
B7F1527-MS1	7060508-03	Phenanthrene	92.0	ug/L	100	ND	92.0	70-130		
B7F1527-MS1	7060508-03	Pyrene	83.8	ug/L	100	ND	83.8	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00935.D Vial: 17
Acq On : 21 Jun 2017 1:05 Operator: GCH
Sample : B7F1527-MS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:36 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:35:28 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	286097	40.00	ug/kg	0.00
21) Naphthalene-d8	6.53	136	975444	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.27	164	473332	40.00	ug/kg	0.00
61) Phenanthrene-d10	9.76	188	859410	40.00	ug/kg	0.00
75) Chrysene-d12	12.61	240	830936	40.00	ug/kg	0.00
84) Perylene-d12	14.65	264	784259	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	0.00	99	0d	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	412318	39.25	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	78.50%		
43) 2-Fluorobiphenyl	7.57	172	819137	37.20	ug/kg	-0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	74.40%		
65) 2,4,6-Tribromophenol	0.00	330	0d	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	704620	31.88	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	63.76%		
Target Compounds						Qvalue
2) Pyridine	3.03	79	210003	18.81	ng/uL	97
3) N-Nitroso-dimethylamine	2.99	42	53276	12.55	ng/uL	97
5) Benzaldehyde	4.90	77	173920	34.55	ug/kg	88
6) Aniline	4.99	93	477830	38.02	ug/kg	98
9) bis(2-Chloroethyl)ether	5.02	93	361032	38.35	ug/kg	96
11) 1,3-Dichlorobenzene	5.25	146	438711	39.50	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	444317m	40.75	ug/kg	
13) Benzyl Alcohol	5.40	108	138731	23.09	ug/kg	98
14) 1,2-Dichlorobenzene	5.46	146	423587	39.86	ug/kg	98
16) bis(2-Chloroisopropyl)ethe	5.52	45	449316	37.79	ug/kg	97
17) Acetophenone	5.66	105	482579	41.87	ug/kg	91
19) n-Nitroso-di-n-propylamine	5.64	70	199999	38.51	ug/kg	88
20) Hexachloroethane	5.79	117	160607	40.62	ug/kg	98
23) Nitrobenzene	5.83	77	378541	39.23	ug/kg	94
24) Isophorone	6.05	82	672822	43.74	ug/kg	98
27) bis(2-Chloroethoxy)methane	6.23	93	410345	42.07	ug/kg	96
30) 1,2,4-Trichlorobenzene	6.46	180	394509	41.28	ug/kg	99
31) Naphthalene	6.54	128	1127986	41.05	ug/kg	99
33) 4-Chloroaniline	6.57	127	460636	48.66	ug/kg	97
34) Hexachlorobutadiene	6.66	225	232850	41.69	ug/kg	99
35) Caprolactam	6.88	113	14543	6.18	ug/kg	93
37) 2-Methylnaphthalene	7.22	142	752198	43.32	ug/kg	98
39) Hexachlorocyclopentadiene	7.38	237	183959	34.99	ug/kg	100
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	427484	42.04	ug/kg	99
44) Biphenyl	7.67	154	920354	43.24	ug/kg	98
45) 2-Chloronaphthalene	7.71	162	716740	42.30	ug/kg	99
46) 2-Nitroaniline	7.79	138	242737	49.90	ug/kg	92
47) Dimethylphthalate	7.95	163	757984	45.19	ug/kg	97
48) Acenaphthylene	8.13	152	1064976	44.72	ug/kg	100
49) 2,6-Dinitrotoluene	8.02	165	191442	57.85	ug/kg	90
50) 3-Nitroaniline	8.20	138	183225	69.37	ug/kg	92
51) Acenaphthene	8.30	153	722374	41.96	ug/kg	98
53) Dibenzofuran	8.47	168	1004110	43.53	ug/kg	99
55) 2,4-Dinitrotoluene	8.43	165	236627	49.96	ug/kg	92
57) Fluorene	8.82	166	797588	43.21	ug/kg	99
58) Diethylphthalate	8.65	149	714477	46.91	ug/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00935.D Vial: 17
Acq On : 21 Jun 2017 1:05 Operator: GCH
Sample : B7F1527-MS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:36 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:35:28 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

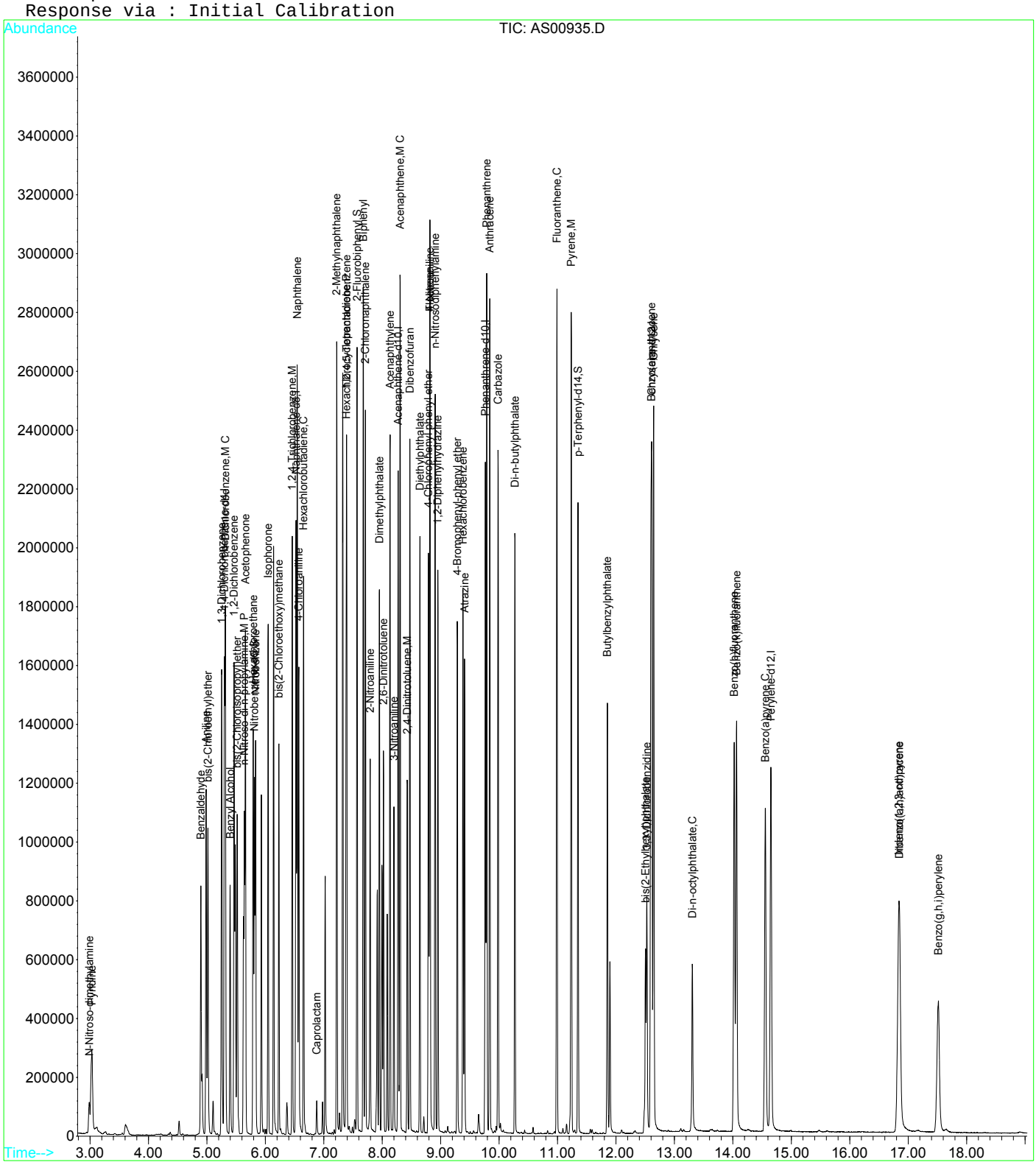
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
59)	4-Chlorophenyl phenyl ethe	8.79	204	406350	45.74	ug/kg	100
60)	4-Nitroaniline	8.81	138	160307	76.11	ug/kg	96
63)	n-Nitrosodiphenylamine	8.91	169	667863	57.52	ug/kg	99
64)	1,2-Diphenylhydrazine	8.95	77	616637	40.48	ug/kg	94
66)	4-Bromophenyl-phenyl ether	9.28	248	254313	48.81	ug/kg	97
67)	Hexachlorobenzene	9.38	284	259799	46.32	ug/kg	100
68)	Atrazine	9.41	200	184243	47.94	ug/kg	92
70)	Phenanthrene	9.79	178	1123030	46.02	ug/kg	99
71)	Anthracene	9.84	178	1135422	46.65	ug/kg	100
72)	Carbazole	9.98	167	994170	64.90	ug/kg#	93
73)	Di-n-butylphthalate	10.27	149	1030071	48.30	ug/kg	98
74)	Fluoranthene	10.99	202	1206429	46.45	ug/kg	99
77)	Pyrene	11.23	202	1263259	41.90	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	397660	46.89	ug/kg	96
80)	Benzo(a)anthracene	12.60	228	972603	39.68	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	222841	47.73	ug/kg	99
82)	Chrysene	12.64	228	1039046	42.45	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.51	149	211271	19.34	ug/kg	99
85)	Di-n-octylphthalate	13.31	149	359887	19.58	ug/kg	100
86)	Benzo(b)fluoranthene	14.02	252	803034	35.79	ug/kg	99
87)	Benzo(k)fluoranthene	14.06	252	797636m	32.91	ug/kg	
88)	Benzo(a)pyrene	14.55	252	758066	35.33	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.84	276	637662	29.88	ug/kg	98
90)	Dibenzo(a,h)anthracene	16.86	278	511480	29.72	ug/kg	98
91)	Benzo(g,h,i)perylene	17.52	276	539525	30.11	ug/kg	99

(#) = qualifier out of range (m) = manual integration
AS00935.D 0426ABNS.M Wed Jun 21 17:25:44 2017 SS Page 2

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170620\AS00935.D Vial: 17
Acq On : 21 Jun 2017 1:05 Operator: GCH
Sample : B7F1527-MS1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:36 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:31:09 2017
Response via : Initial Calibration



Batch B7F1527 **Method: SW 846 8270C** **Prepared: 06/15/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F1527-MSD1	7060508-03	Acenaphthene	87.4	ug/L	100	ND	87.4	70-130	4.06	20
B7F1527-MSD1	7060508-03	Acenaphthylene	93.7	ug/L	100	ND	93.7	70-130	4.68	20
B7F1527-MSD1	7060508-03	Anthracene	97.1	ug/L	100	ND	97.1	70-130	3.94	20
B7F1527-MSD1	7060508-03	Benzo(a)anthracene	85.4	ug/L	100	ND	85.4	70-130	7.32	20
B7F1527-MSD1	7060508-03	Benzo(a)pyrene	74.9	ug/L	100	ND	74.9	70-130	5.84	20
B7F1527-MSD1	7060508-03	Benzo(b)fluoranthene	75.3	ug/L	100	ND	75.3	70-130	5.10	20
B7F1527-MSD1	7060508-03	Benzo(g,h,i)perylene	69.1	ug/L	100	ND	69.1*	70-130	13.8	20
B7F1527-MSD1	7060508-03	Benzo(k)fluoranthene	68.4	ug/L	100	ND	68.4*	70-130	3.78	20
B7F1527-MSD1	7060508-03	Chrysene	82.3	ug/L	100	ND	82.3	70-130	3.10	20
B7F1527-MSD1	7060508-03	Dibenzo(a,h)anthracene	65.0	ug/L	100	ND	65.0*	70-130	8.92	20
B7F1527-MSD1	7060508-03	Fluoranthene	97.7	ug/L	100	ND	97.7	70-130	5.04	20
B7F1527-MSD1	7060508-03	Fluorene	90.6	ug/L	100	ND	90.6	70-130	4.74	20
B7F1527-MSD1	7060508-03	Indeno(1,2,3-cd)pyrene	64.9	ug/L	100	ND	64.9*	70-130	8.26	20
B7F1527-MSD1	7060508-03	Naphthalene	85.9	ug/L	100	ND	85.9	70-130	4.47	20
B7F1527-MSD1	7060508-03	Phenanthrene	95.5	ug/L	100	ND	95.5	70-130	3.69	20
B7F1527-MSD1	7060508-03	Pyrene	89.8	ug/L	100	ND	89.8	70-130	6.92	20

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00936.D Vial: 18
Acq On : 21 Jun 2017 1:32 Operator: GCH
Sample : B7F1527-MSD1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:38 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:35:28 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	272953	40.00	ug/kg	0.00
21) Naphthalene-d8	6.53	136	923430	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.27	164	443498	40.00	ug/kg	0.00
61) Phenanthrene-d10	9.76	188	815374	40.00	ug/kg	0.00
75) Chrysene-d12	12.61	240	773627	40.00	ug/kg	0.00
84) Perylene-d12	14.65	264	693740	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
7) Phenol-d6	0.00	99	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
22) Nitrobenzene-d5	5.81	82	406503	40.88	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	81.76%		
43) 2-Fluorobiphenyl	7.57	172	813467	39.42	ug/kg	-0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	78.84%		
65) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/kg	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
78) p-Terphenyl-d14	11.35	244	696184	33.83	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	67.66%		
Target Compounds						Qvalue
2) Pyridine	3.03	79	217578	20.43	ng/uL	100
3) N-Nitroso-dimethylamine	2.99	42	53618	13.24	ng/uL	100
5) Benzaldehyde	4.90	77	172657	35.95	ug/kg	88
6) Aniline	4.99	93	467598	38.99	ug/kg	99
9) bis(2-Chloroethyl)ether	5.02	93	369076	41.10	ug/kg	94
11) 1,3-Dichlorobenzene	5.25	146	436274	41.17	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	440835m	42.38	ug/kg	
13) Benzyl Alcohol	5.40	108	137676	24.02	ug/kg	99
14) 1,2-Dichlorobenzene	5.47	146	422409	41.66	ug/kg	98
16) bis(2-Chloroisopropyl)ethe	5.52	45	446432	39.35	ug/kg	97
17) Acetophenone	5.66	105	480418	43.69	ug/kg	91
19) n-Nitroso-di-n-propylamine	5.64	70	197681	39.89	ug/kg	89
20) Hexachloroethane	5.79	117	160120	42.45	ug/kg	97
23) Nitrobenzene	5.83	77	374698	41.02	ug/kg	94
24) Isophorone	6.05	82	653808	44.90	ug/kg	97
27) bis(2-Chloroethoxy)methane	6.23	93	403726	43.72	ug/kg	95
30) 1,2,4-Trichlorobenzene	6.46	180	387293	42.80	ug/kg	99
31) Naphthalene	6.54	128	1116678	42.93	ug/kg	99
33) 4-Chloroaniline	6.57	127	460538	51.39	ug/kg	97
34) Hexachlorobutadiene	6.65	225	229894	43.48	ug/kg	99
35) Caprolactam	6.88	113	14495	6.50	ug/kg	91
37) 2-Methylnaphthalene	7.22	142	740646	45.05	ug/kg	98
39) Hexachlorocyclopentadiene	7.38	237	184425	37.43	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	418083	43.88	ug/kg	99
44) Biphenyl	7.68	154	902113	45.23	ug/kg	97
45) 2-Chloronaphthalene	7.71	162	701057	44.16	ug/kg	99
46) 2-Nitroaniline	7.79	138	241675	53.02	ug/kg	91
47) Dimethylphthalate	7.95	163	746944	47.53	ug/kg	97
48) Acenaphthylene	8.13	152	1045639	46.86	ug/kg	100
49) 2,6-Dinitrotoluene	8.02	165	185513	59.83	ug/kg	91
50) 3-Nitroaniline	8.20	138	180605	72.98	ug/kg	92
51) Acenaphthene	8.30	153	704864	43.69	ug/kg	98
53) Dibenzofuran	8.47	168	988443	45.73	ug/kg	99
55) 2,4-Dinitrotoluene	8.43	165	232683	52.43	ug/kg	91
57) Fluorene	8.82	166	783633	45.31	ug/kg	99
58) Diethylphthalate	8.65	149	699253	48.99	ug/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00936.D Vial: 18
Acq On : 21 Jun 2017 1:32 Operator: GCH
Sample : B7F1527-MSD1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:38 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:35:28 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

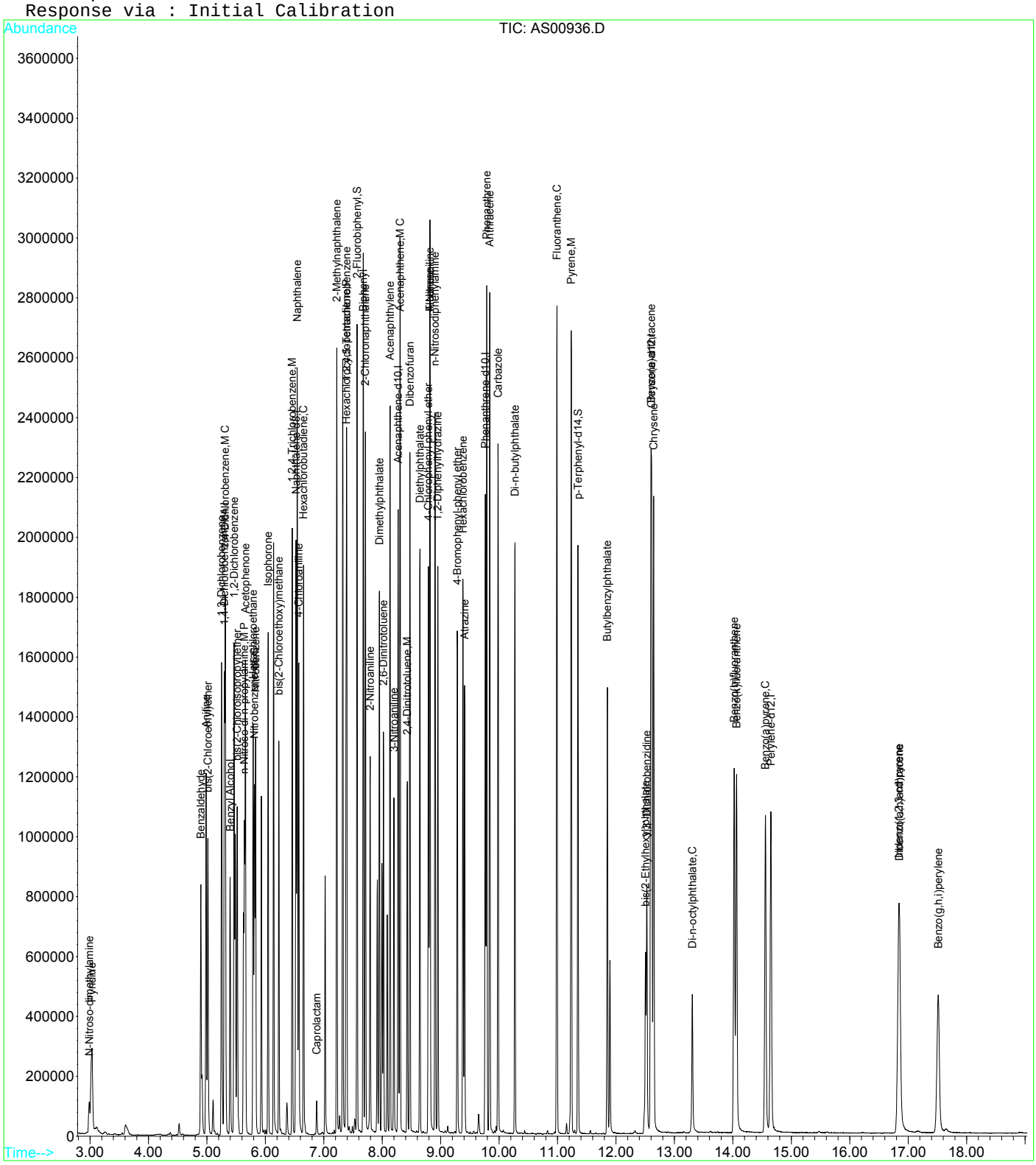
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
59)	4-Chlorophenyl phenyl ethe	8.79	204	398991	47.94	ug/kg	100
60)	4-Nitroaniline	8.81	138	148987m	75.50	ug/kg	
63)	n-Nitrosodiphenylamine	8.90	169	654948	59.45	ug/kg	99
64)	1,2-Diphenylhydrazine	8.95	77	603702	41.77	ug/kg	94
66)	4-Bromophenyl-phenyl ether	9.29	248	249240	50.42	ug/kg	98
67)	Hexachlorobenzene	9.38	284	256384	48.18	ug/kg	100
68)	Atrazine	9.41	200	181768	49.86	ug/kg	92
70)	Phenanthrene	9.79	178	1105589	47.75	ug/kg	99
71)	Anthracene	9.84	178	1120584	48.53	ug/kg	99
72)	Carbazole	9.98	167	979494	67.40	ug/kg#	94
73)	Di-n-butylphthalate	10.27	149	1021089	50.46	ug/kg	98
74)	Fluoranthene	10.99	202	1203758	48.85	ug/kg	99
77)	Pyrene	11.23	202	1260477	44.91	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	399671	50.61	ug/kg	95
80)	Benzo(a)anthracene	12.60	228	974365	42.70	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	224742	51.70	ug/kg	99
82)	Chrysene	12.64	228	937884	41.16	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.51	149	208532	20.50	ug/kg	100
85)	Di-n-octylphthalate	13.31	149	310895	19.12	ug/kg	100
86)	Benzo(b)fluoranthene	14.02	252	747506	37.66	ug/kg	97
87)	Benzo(k)fluoranthene	14.06	252	732775m	34.18	ug/kg	
88)	Benzo(a)pyrene	14.56	252	710930	37.45	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.83	276	612647	32.46	ug/kg	100
90)	Dibenzo(a,h)anthracene	16.86	278	494708	32.50	ug/kg	99
91)	Benzo(g,h,i)perylene	17.51	276	547832	34.56	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170620\AS00936.D Vial: 18
Acq On : 21 Jun 2017 1:32 Operator: GCH
Sample : B7F1527-MSD1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:38 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:31:09 2017
Response via : Initial Calibration



METHOD BLANK SUMMARY

Batch ID: **B7F1527**

Lab Number	Sample Id	Extraction Date	Analysis Date
B7F1527-BLK1	BLK1	06/15/2017	06/16/2017 17:13
B7F1527-BS1	BS1	06/15/2017	06/16/2017 17:40
B7F1527-MS1	MS1	06/15/2017	06/21/2017 01:05
B7F1527-MSD1	MSD1	06/15/2017	06/21/2017 01:32
7060508-01	MW-1-20170613	06/15/2017	06/16/2017 23:00
7060508-02	Dup-20170613	06/15/2017	06/16/2017 23:27
7060508-03	MW-7S-20170613	06/15/2017	06/16/2017 23:53
B7F1527-BLK3	BLK3	06/16/2017	06/19/2017 19:20
B7F1527-BS2	BS2	06/16/2017	06/19/2017 19:47
7060508-04	MW-7D-20170613	06/16/2017	06/17/2017 00:20
7060508-05	MW-8S-20170613	06/16/2017	06/17/2017 00:46
7060508-06	MW-8D-20170613	06/16/2017	06/17/2017 01:13
7060508-07	MW-4S-20170614	06/16/2017	06/17/2017 01:39
7060508-08	MW-4D-20170614	06/16/2017	06/17/2017 02:06
7060508-09	MW-3-20170614	06/16/2017	06/20/2017 01:14
7060508-10	MW-9S-20170614	06/16/2017	06/20/2017 01:41
7060508-11	FB-20170614	06/16/2017	06/20/2017 02:08
7060508-12	MW-9D-20170614	06/16/2017	06/20/2017 02:35

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-A	Project:	Patchogue
Sequence:	S7D2809		

Lab Sample ID:	**S7D2809-TUN1**	Injection Date:	04/26/2017	Injection Time:	18:58
Lab File ID:	AS00031.D				

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
51	30 - 60% of 198	34	PASS
68	Less than 2% of 69	0.424	PASS
69	Less than 100% of 198	32.1	PASS
70	Less than 2% of 69	0.669	PASS
127	40 - 60% of 198	41.9	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.94	PASS
275	10 - 30% of 198	26.2	PASS
365	1 - 100% of 198	2.64	PASS
441	0.01 - 99.9% of 443	76.7	PASS
442	40 - 100% of 198	76.8	PASS
443	17 - 23% of 442	19.7	PASS

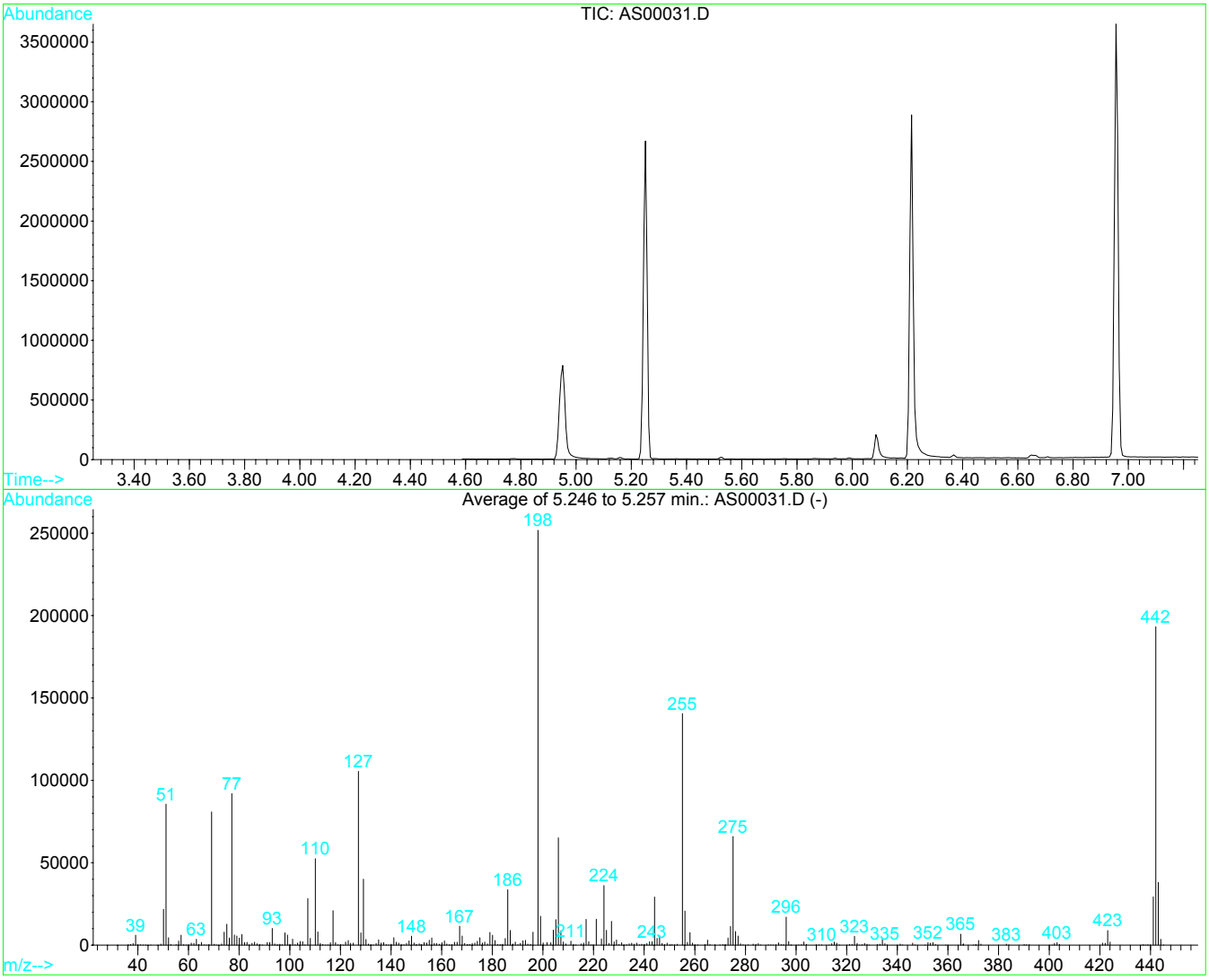
Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Cal Standard	S7D2809-CAL1	AS00032.D	04/26/2017	19:14.00
Cal Standard	S7D2809-CAL2	AS00033.D	04/26/2017	19:41.00
Cal Standard	S7D2809-CAL3	AS00035.D	04/26/2017	20:35.00
Cal Standard	S7D2809-CAL4	AS00036.D	04/26/2017	21:03.00
Cal Standard	S7D2809-CAL5	AS00037.D	04/26/2017	21:30.00
Cal Standard	S7D2809-CAL6	AS00038.D	04/26/2017	21:57.00

F-V

DFTPP

Data File : G:\HPCHEM\A\DATA\20170426\AS00031.D Vial: 2
Acq On : 26 Apr 2017 18:58 Operator: GCH
Sample : SEQ-TUN Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C



Spectrum Information: Average of 5.246 to 5.257 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.0	85575	PASS
68	69	0.00	2	0.4	343	PASS
69	198	0.00	100	32.1	80872	PASS
70	69	0.00	2	0.7	541	PASS
127	198	40	60	41.9	105504	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	251776	PASS
199	198	5	9	6.9	17465	PASS
275	198	10	30	26.2	65944	PASS
365	198	1	100	2.6	6651	PASS
441	443	0.01	100	76.7	29248	PASS
442	198	40	100	76.8	193245	PASS
443	442	17	23	19.7	38112	PASS

AS00031.D 0426ABNS.M Fri Apr 28 15:16:11 2017 SS

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-A	Project:	Patchogue
Sequence:	S7F2002		

Lab Sample ID:	**S7F2002-TUN1**	Injection Date:	06/16/2017	Injection Time:	16:08
Lab File ID:	AS00873.D				

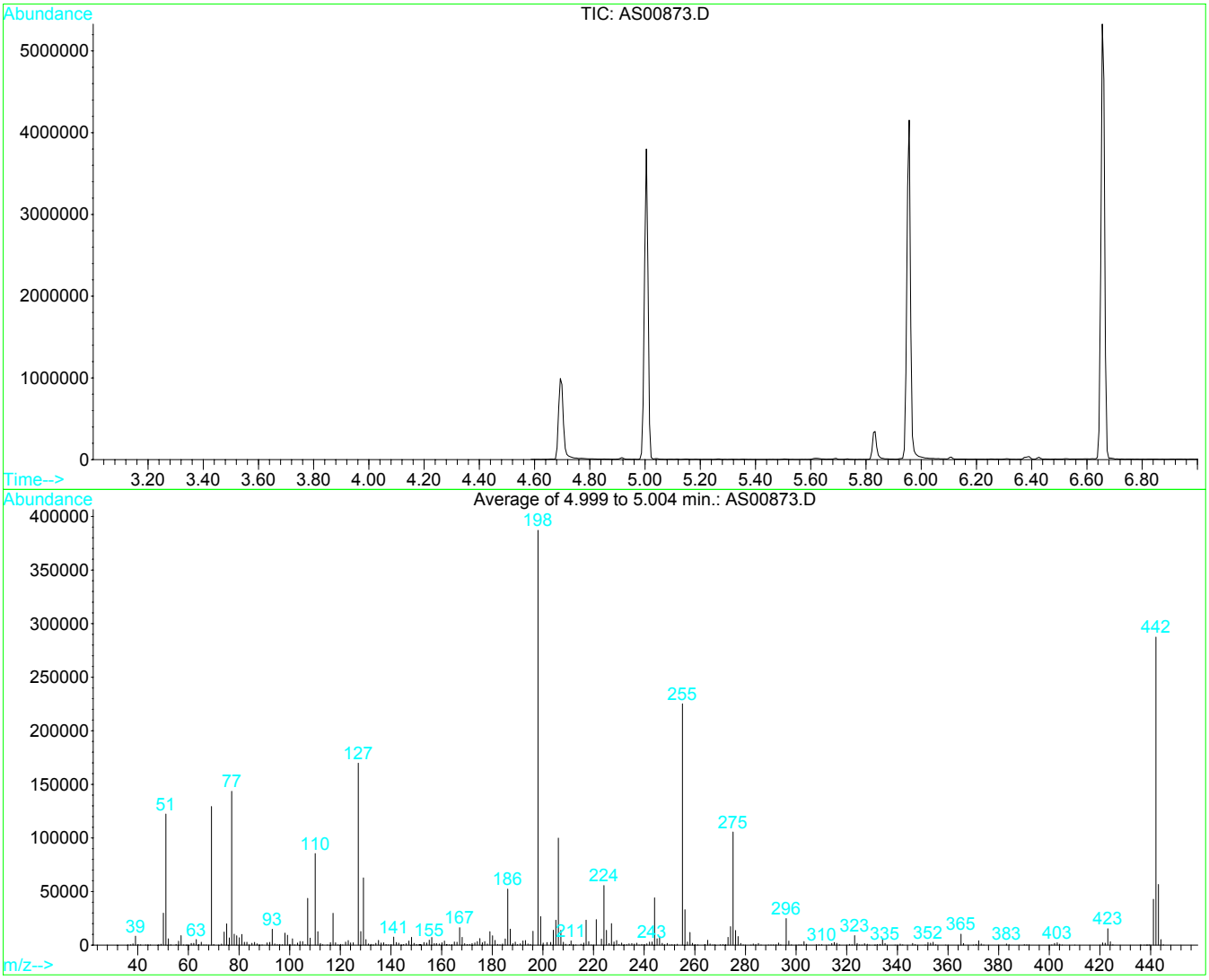
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
51	30 - 60% of 198	31.6	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	33.4	PASS
70	Less than 2% of 69	0.518	PASS
127	40 - 60% of 198	43.9	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
275	10 - 30% of 198	27.3	PASS
365	1 - 100% of 198	2.66	PASS
441	0.01 - 99.9% of 443	75.7	PASS
442	40 - 100% of 198	74.3	PASS
443	17 - 23% of 442	19.7	PASS

Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Calibration Check	S7F2002-CCV1	AS00874.D	06/16/2017	16:24.00
Blank	B7F1527-BLK1	AS00875.D	06/16/2017	17:13.00
LCS	B7F1527-BS1	AS00876.D	06/16/2017	17:40.00
MW-1-20170613	7060508-01	AS00888.D	06/16/2017	23:00.00
Dup-20170613	7060508-02	AS00889.D	06/16/2017	23:27.00
MW-7S-20170613	7060508-03	AS00890.D	06/16/2017	23:53.00
MW-7D-20170613	7060508-04	AS00891.D	06/17/2017	0:20.00
MW-8S-20170613	7060508-05	AS00892.D	06/17/2017	0:46.00
MW-8D-20170613	7060508-06	AS00893.D	06/17/2017	1:13.00
MW-4S-20170614	7060508-07	AS00894.D	06/17/2017	1:39.00
MW-4D-20170614	7060508-08	AS00895.D	06/17/2017	2:06.00

DFTPP

```
Data File : G:\HPCHEM\A\DATA\20170616\AS00873.D          Vial: 2
Acq On    : 16 Jun 2017  16:08                    Operator: GCH
Sample    : SEQ-TUN                               Inst    : GCMS-A
Misc      :                                       Multiplr: 1.00
MS Integration Params: RTEINT.P
Method    : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title     : BNA Extractables GC/MS 8270C
```



Spectrum Information: Average of 4.999 to 5.004 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.6	122292	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	33.4	129420	PASS
70	69	0.00	2	0.5	670	PASS
127	198	40	60	43.9	169792	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	387072	PASS
199	198	5	9	6.9	26652	PASS
275	198	10	30	27.3	105520	PASS
365	198	1	100	2.7	10299	PASS
441	443	0.01	100	75.7	42848	PASS
442	198	40	100	74.3	287456	PASS
443	442	17	23	19.7	56596	PASS

AS00873.D 0426ABNS.M Tue Jun 20 11:11:54 2017 SS

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-A	Project:	Patchogue
Sequence:	S7F2006		

Lab Sample ID:	**S7F2006-TUN1**	Injection Date:	06/19/2017	Injection Time:	18:28
Lab File ID:	AS00899.D				

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
51	30 - 60% of 198	35.1	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	36.3	PASS
70	Less than 2% of 69	0.369	PASS
127	40 - 60% of 198	45.6	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.75	PASS
275	10 - 30% of 198	26	PASS
365	1 - 100% of 198	2.44	PASS
441	0.01 - 99.9% of 443	75	PASS
442	40 - 100% of 198	66.1	PASS
443	17 - 23% of 442	19.4	PASS

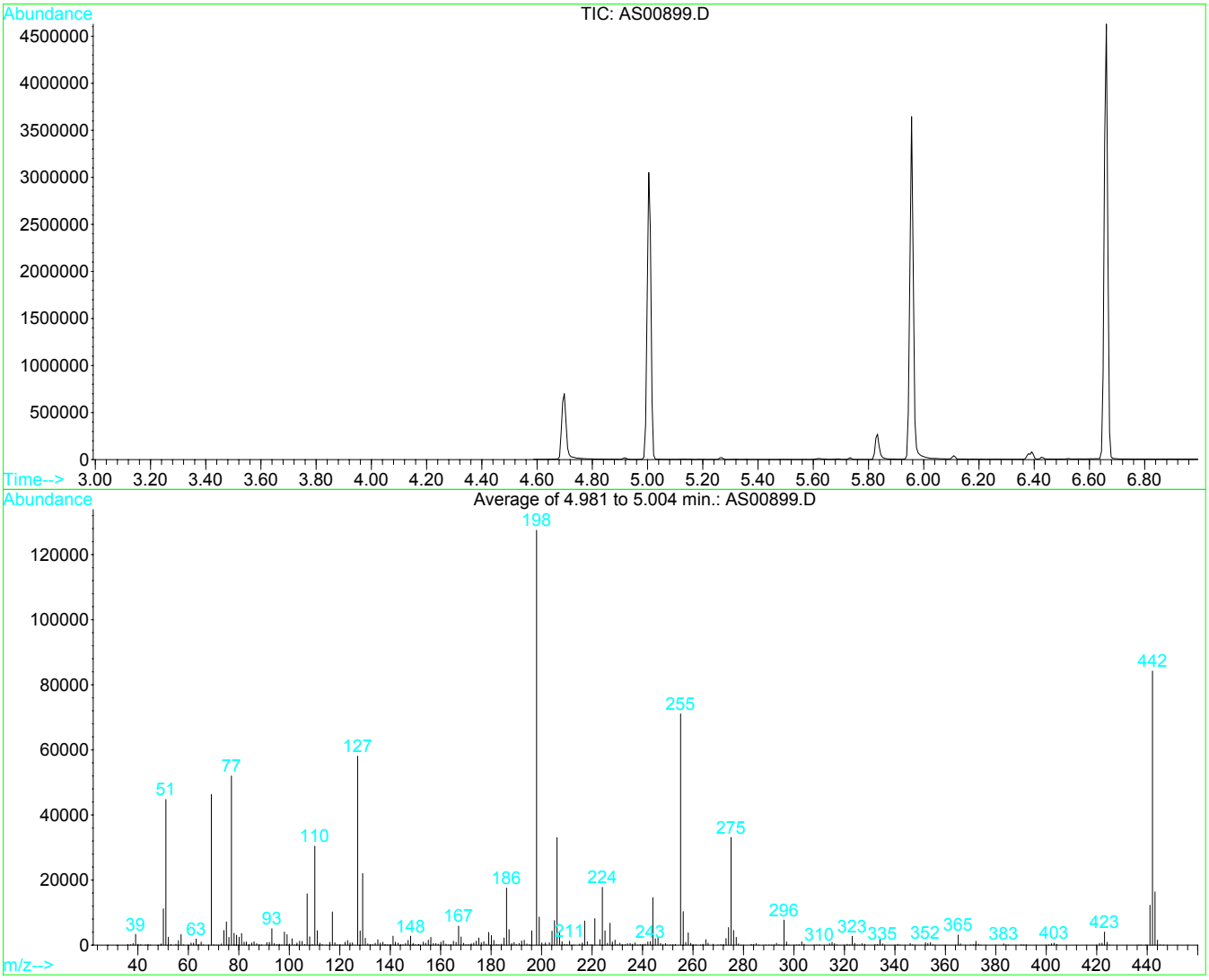
Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Calibration Check	S7F2006-CCV1	AS00900.D	06/19/2017	18:44.00
Blank	B7F1527-BLK3	AS00901.D	06/19/2017	19:20.00
LCS	B7F1527-BS2	AS00902.D	06/19/2017	19:47.00
MW-3-20170614	7060508-09	AS00914.D	06/20/2017	1:14.00
MW-9S-20170614	7060508-10	AS00915.D	06/20/2017	1:41.00
FB-20170614	7060508-11	AS00916.D	06/20/2017	2:08.00
MW-9D-20170614	7060508-12	AS00917.D	06/20/2017	2:35.00

F-V

DFTPP

Data File : G:\HPCHEM\A\DATA\20170619\AS00899.D Vial: 2
Acq On : 19 Jun 2017 18:28 Operator: GCH
Sample : SEQ-TUN Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C



Spectrum Information: Average of 4.981 to 5.004 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.1	44766	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.3	46306	PASS
70	69	0.00	2	0.4	171	PASS
127	198	40	60	45.6	58077	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	127483	PASS
199	198	5	9	6.8	8610	PASS
275	198	10	30	26.0	33107	PASS
365	198	1	100	2.4	3116	PASS
441	443	0.01	100	75.0	12282	PASS
442	198	40	100	66.1	84217	PASS
443	442	17	23	19.4	16375	PASS

AS00899.D 0426ABNS.M Tue Jun 20 12:23:01 2017 SS

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-A	Project:	Patchogue
Sequence:	S7F2119		

Lab Sample ID:	**S7F2119-TUN1**	Injection Date:	06/20/2017	Injection Time:	18:26
Lab File ID:	AS00920.D				

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
51	30 - 60% of 198	33.9	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	34.7	PASS
70	Less than 2% of 69	0.539	PASS
127	40 - 60% of 198	44.6	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.82	PASS
275	10 - 30% of 198	26.8	PASS
365	1 - 100% of 198	2.51	PASS
441	0.01 - 99.9% of 443	72.2	PASS
442	40 - 100% of 198	73.3	PASS
443	17 - 23% of 442	20.3	PASS

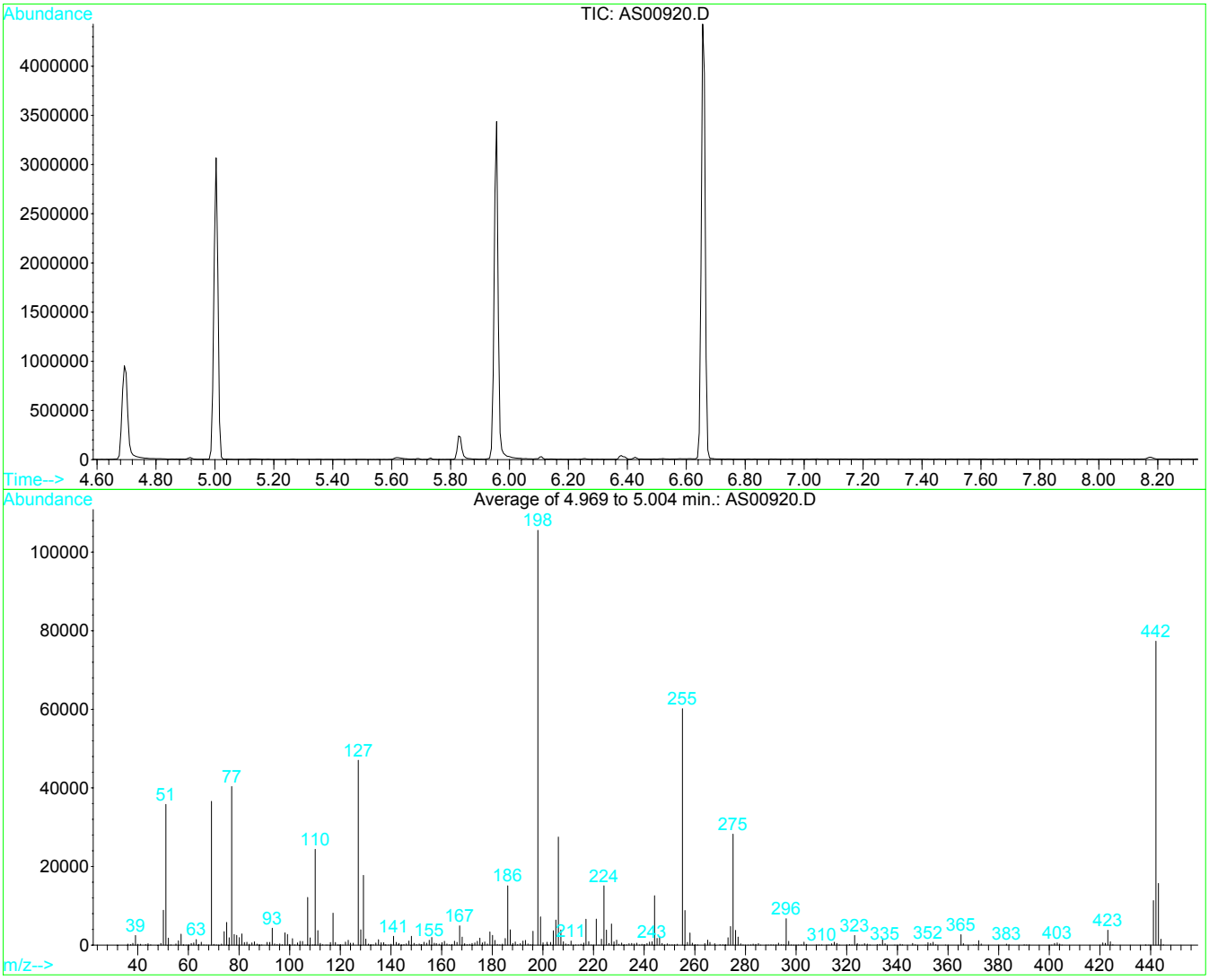
Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Calibration Check	S7F2119-CCV1	AS00921.D	06/20/2017	18:43.00
Matrix Spike	B7F1527-MS1	AS00935.D	06/21/2017	1:05.00
Matrix Spike Dup	B7F1527-MSD1	AS00936.D	06/21/2017	1:32.00

F-V

DFTPP

Data File : G:\HPCHEM\A\DATA\20170620\AS00920.D Vial: 2
Acq On : 20 Jun 2017 18:26 Operator: GCH
Sample : SEQ-TUN Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: EVENTS.E
Method : G:\HPCHEM\GCECD5\METHODS\504_0612.M (Chemstation Integrator)
Title : EDB/DBCP



Spectrum Information: Average of 4.969 to 5.004 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.9	35823	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	34.7	36582	PASS
70	69	0.00	2	0.5	197	PASS
127	198	40	60	44.6	47035	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	105556	PASS
199	198	5	9	6.8	7198	PASS
275	198	10	30	26.8	28260	PASS
365	198	1	100	2.5	2652	PASS
441	443	0.01	100	72.2	11336	PASS
442	198	40	100	73.3	77348	PASS
443	442	17	23	20.3	15704	PASS

AS00920.D 504_0612.M Wed Jun 28 13:15:28 2017 SS

Response Factor Report GCMS-A

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration

Calibration Files
2 =AS00032.D 5 =AS00033.D 20 =AS00035.D
50 =AS00036.D 60 =AS00037.D 80 =AS00038.D

		Compound	2	5	20	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)		Pyridine	1.680	1.667	1.488	1.485	1.536	1.510	1.561	5.70
3)		N-Nitroso-dimethyla	0.611	0.617	0.596	0.580	0.582	0.574	0.593	3.00
4)	S	2-Fluorophenol	1.567	1.619	1.517	1.484	1.523	1.488	1.533	3.37
5)		Benzaldehyde	0.667	0.690	0.835	0.802	0.612	0.617	0.704	13.38
6)		Aniline	1.681	1.804	1.763	1.800	1.804	1.692	1.757	3.25
7)	S	Phenol-d6	1.906	1.929	1.759	1.717	1.723	1.670	1.784	6.03
8)	M C	Phenol	1.849	1.829	1.613	1.585	1.598	1.532	1.668	8.14
9)		bis(2-Chloroethyl)e	1.468	1.378	1.300	1.256	1.240	1.254	1.316	6.84
10)	M	2-Chlorophenol	1.451	1.493	1.376	1.377	1.383	1.356	1.406	3.82
11)		1,3-Dichlorobenzene	1.711	1.690	1.500	1.488	1.491	1.437	1.553	7.50
12)	M C	1,4-Dichlorobenzene	1.842	1.776	1.500	1.488	1.568	1.514	1.615	9.55
13)		Benzyl Alcohol	0.881	0.890	0.804	0.824	0.827	0.814	0.840	4.33
14)		1,2-Dichlorobenzene	1.667	1.631	1.437	1.413	1.412	1.356	1.486	8.71
15)		2-Methylphenol	1.288	1.304	1.159	1.149	1.152	1.117	1.195	6.67
16)		bis(2-Chloroisoprop	2.047	2.027	1.811	1.720	1.707	1.604	1.819	9.94
17)		Acetophenone	1.912	1.872	1.645	1.641	1.639	1.581	1.715	8.16
18)		3+4-Methylphenol	1.296	1.305	1.175	1.185	1.182	1.165	1.218	5.28
19)	M P	n-Nitroso-di-n-prop	0.755	0.777	0.695	0.717	0.711	0.700	0.726	4.52
20)		Hexachloroethane	0.588	0.611	0.555	0.558	0.562	0.545	0.570	4.32
21)	I	Naphthalene-d8	----------ISTD----------							
22)	S	Nitrobenzene-d5	0.442	0.437	0.415	0.429	0.436	0.426	0.431	2.20
23)		Nitrobenzene	0.420	0.407	0.389	0.390	0.390	0.379	0.396	3.78
24)		Isophorone	0.666	0.675	0.622	0.618	0.614	0.590	0.631	5.20
25)	C	2-Nitrophenol	0.151	0.167	0.177	0.211	0.209	0.204	0.187	13.47
26)		2,4-Dimethylphenol	0.376	0.376	0.335	0.331	0.330	0.318	0.344	7.38
27)		bis(2-Chloroethoxy)	0.442	0.430	0.384	0.386	0.384	0.374	0.400	7.15
28)	C	2,4-Dichlorophenol	0.286	0.312	0.301	0.305	0.309	0.306	0.303	3.06
29)		Benzoic Acid	0.055	0.068	0.095	0.132	0.132	0.160	0.107	38.48
30)	M	1,2,4-Trichlorobenz	0.426	0.424	0.380	0.376	0.380	0.365	0.392	6.73
31)		Naphthalene	1.269	1.254	1.100	1.069	1.077	0.991	1.127	9.84
32)		2,6-Dichlorophenol	0.314	0.326	0.303	0.309	0.305	0.303	0.310	2.87
33)		4-Chloroaniline	0.419	0.430	0.399	0.384	0.355	0.343	0.388	8.94
34)	C	Hexachlorobutadiene	0.240	0.250	0.218	0.222	0.222	0.222	0.229	5.51
35)		Caprolactam	0.083	0.095	0.092	0.101	0.104	0.105	0.097	8.60
36)	M C	4-Chloro-3-methylph	0.271	0.292	0.268	0.277	0.278	0.275	0.277	3.06
37)		2-Methylnaphthalene	0.786	0.808	0.706	0.675	0.670	0.628	0.712	9.89
38)	I	Acenaphthene-d10	----------ISTD----------							
39)	P	Hexachlorocyclopent	0.388	0.409	0.440	0.477	0.478	0.474	0.444	8.71
40)		1,2,4,5-Tetrachloro	0.933	0.930	0.831	0.835	0.820	0.806	0.859	6.59
41)	C	2,4,6-Trichlorophen	0.384	0.446	0.443	0.476	0.466	0.474	0.448	7.67
42)		2,4,5-Trichlorophen	0.424	0.484	0.480	0.508	0.513	0.509	0.486	6.93
43)	S	2-Fluorobiphenyl	2.074	2.010	1.812	1.813	1.757	1.701	1.861	7.92
44)		Biphenyl	1.992	1.968	1.767	1.730	1.705	1.632	1.799	8.18
45)		2-Chloronaphthalene	1.575	1.561	1.397	1.382	1.354	1.322	1.432	7.58
46)		2-Nitroaniline	0.343	0.377	0.398	0.440	0.452	0.456	0.411	11.13
47)		Dimethylphthalate	1.527	1.558	1.375	1.380	1.352	1.312	1.417	7.08
48)		Acenaphthylene	2.098	2.197	1.992	1.985	1.941	1.862	2.013	5.88
49)		2,6-Dinitrotoluene	0.211	0.255	0.274	0.312	0.307	0.318	0.280	14.80
50)		3-Nitroaniline	0.241	0.272	0.237	0.206	0.182	0.201	0.223	14.75
51)	M C	Acenaphthene	1.592	1.584	1.438	1.418	1.379	1.318	1.455	7.62
52)	P	2,4-Dinitrophenol	0.009	0.020	0.034	0.069	0.080	0.104	0.053	71.25
53)		Dibenzofuran	2.202	2.131	1.919	1.863	1.836	1.745	1.949	9.16
54)	M P	4-Nitrophenol	0.172	0.155	0.187	0.214	0.214	0.222	0.194	13.86
55)	M	2,4-Dinitrotoluene	0.256	0.273	0.317	0.390	0.400	0.410	0.341	19.92
56)		2,3,4,6-Tetrachloro	0.261	0.309	0.311	0.364	0.368	0.383	0.333	14.06
57)		Fluorene	1.694	1.699	1.544	1.515	1.475	1.431	1.560	7.22

(#) = Out of Range

Response Factor Report GCMS-A

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration

Calibration Files
2 =AS00032.D 5 =AS00033.D 20 =AS00035.D
50 =AS00036.D 60 =AS00037.D 80 =AS00038.D

		Compound	2	5	20	50	60	80	Avg	%RSD
58)		Diethylphthalate	1.360	1.381	1.251	1.280	1.241	1.210	1.287	5.31
59)		4-Chlorophenyl phen	0.797	0.809	0.730	0.738	0.721	0.709	0.751	5.54
60)		4-Nitroaniline	0.177	0.175	0.158	0.178	0.192	0.188	0.178	6.77
61)	I	Phenanthrene-d10	----------ISTD----------							
62)		4,6-Dinitro-2-methy	0.025	0.032	0.052	0.089	0.100	0.114	0.069	54.25
63)		n-Nitrosodiphenylam	0.590	0.605	0.523	0.509	0.513	0.502	0.540	8.31
64)		1,2-Diphenylhydrazi	0.758	0.792	0.706	0.683	0.676	0.640	0.709	7.96
65)	S	2,4,6-Tribromopheno	0.087	0.105	0.109	0.123	0.126	0.127	0.113	13.87
66)		4-Bromophenyl-pheny	0.246	0.263	0.234	0.240	0.236	0.235	0.243	4.63
67)		Hexachlorobenzene	0.277	0.280	0.246	0.255	0.258	0.251	0.261	5.38
68)		Atrazine	0.176	0.203	0.186	0.174	0.170	0.164	0.179	7.81
69)	M C	Pentachlorophenol	0.068	0.090	0.108	0.139	0.145	0.148	0.116	28.63
70)		Phenanthrene	1.276	1.261	1.099	1.084	1.076	1.019	1.136	9.37
71)		Anthracene	1.192	1.246	1.108	1.115	1.102	1.034	1.133	6.61
72)		Carbazole	1.070	1.094	0.628	0.516	0.465	0.506	0.713	40.79
73)		Di-n-butylphthalate	0.911	1.052	1.000	1.030	1.014	0.949	0.993	5.35
74)	C	Fluoranthene	1.212	1.312	1.222	1.211	1.178	1.119	1.209	5.21
75)	I	Chrysene-d12	----------ISTD----------							
76)		Benzidine	0.101	0.085	0.040	0.033	0.058		0.063	46.10
77)	M	Pyrene	1.509	1.592	1.447	1.403	1.415	1.342	1.451	6.07
78)	S	p-Terphenyl-d14	1.090	1.165	1.036	1.032	1.048	1.013	1.064	5.22
79)		Butylbenzylphthalat	0.322	0.377	0.403	0.451	0.452	0.444	0.408	12.67
80)		Benzo(a)anthracene	1.195	1.262	1.154	1.160	1.173	1.135	1.180	3.80
81)		3,3'-Dichlorobenzid	0.227	0.271	0.242	0.212	0.205	0.192	0.225	12.69
82)		Chrysene	1.225	1.278	1.137	1.160	1.141	1.128	1.178	5.09
83)		bis(2-Ethylhexyl)ph	0.539	0.422	0.489	0.575	0.571	0.558	0.526	11.32
84)	I	Perylene-d12	----------ISTD----------							
85)	C	Di-n-octylphthalate	0.953	0.774	0.803	1.045	1.021	1.028	0.937	12.78
86)		Benzo(b)fluoranthen	1.086	1.097	1.124	1.183	1.189	1.188	1.144	4.21
87)		Benzo(k)fluoranthen	1.229	1.244	1.185	1.262	1.261	1.236	1.236	2.28
88)	C	Benzo(a)pyrene	1.096	1.119	1.009	1.117	1.110	1.115	1.094	3.90
89)		Indeno(1,2,3-cd)pyr	0.944	1.037	1.048	1.155	1.161	1.186	1.088	8.66
90)		Dibenzo(a,h)anthrac	0.740	0.825	0.858	0.943	0.935	0.965	0.878	9.86
91)		Benzo(g,h,i)perylen	0.868	0.886	0.856	0.956	0.961	0.957	0.914	5.36

(#) = Out of Range

Compound List Report GCMS-A

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jul 07 10:55:11 2017
Response via : Initial Calibration
Total Cpnds : 91

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4	152	5.23	1.000	A	2	A	B
2		Pyridine	79	2.99	0.573	A	1	A	B
3		N-Nitroso-dimethylamine	42	2.95	0.564	A	2	A	B
4	S	2-Fluorophenol	112	4.11	0.786	A	3	A	B
5		Benzaldehyde	77	4.84	0.927	A	3	A	B
6		Aniline	93	4.93	0.943	A	2	A	B
7	S	Phenol-d6	99	4.84	0.927	A	2	A	B
8	M C	Phenol	94	4.86	0.930	A	2	A	B
9		bis(2-Chloroethyl)ether	93	4.95	0.948	A	2	A	B
10	M	2-Chlorophenol	128	5.04	0.965	A	2	A	B
11		1,3-Dichlorobenzene	146	5.18	0.992	A	3	A	B
12	M C	1,4-Dichlorobenzene	146	5.18	0.992	A	3	A	B
13		Benzyl Alcohol	108	5.31	1.017	A	2	A	B
14		1,2-Dichlorobenzene	146	5.38	1.030	A	3	A	B
15		2-Methylphenol	108	5.39	1.032	A	2	A	B
16		bis(2-Chloroisopropyl)ether	45	5.42	1.038	A	2	A	B
17		Acetophenone	105	5.56	1.064	A	2	A	B
18		3+4-Methylphenol	108	5.52	1.057	A	2	A	B
19	M P	n-Nitroso-di-n-propylamine	70	5.54	1.061	A	2	A	B
20		Hexachloroethane	117	5.69	1.089	A	3	A	B
21	I	Naphthalene-d8	136	6.45	1.000	A	3	A	B
22	S	Nitrobenzene-d5	82	5.77	0.895	A	2	A	B
23		Nitrobenzene	77	5.79	0.897	A	2	A	B
24		Isophorone	82	5.99	0.929	A	2	A	B
25	C	2-Nitrophenol	139	6.08	0.943	A	2	A	B
26		2,4-Dimethylphenol	107	6.07	0.942	A	3	A	B
27		bis(2-Chloroethoxy)methane	93	6.16	0.955	A	2	A	B
28	C	2,4-Dichlorophenol	162	6.29	0.976	A	2	A	B
29		Benzoic Acid	105	6.12	0.949	QO	2	A	B
30	M	1,2,4-Trichlorobenzene	180	6.38	0.990	A	2	A	B
31		Naphthalene	128	6.47	1.003	A	3	A	B
32		2,6-Dichlorophenol	162	6.50	1.009	A	2	A	B
33		4-Chloroaniline	127	6.49	1.006	A	2	A	B
34	C	Hexachlorobutadiene	225	6.57	1.019	A	3	A	B
35		Caprolactam	113	6.80	1.055	A	2	A	B
36	M C	4-Chloro-3-methylphenol	107	6.91	1.072	A	2	A	B
37		2-Methylnaphthalene	142	7.11	1.103	A	2	A	B
38	I	Acenaphthene-d10	164	8.19	1.000	A	2	A	B
39	P	Hexachlorocyclopentadiene	237	7.33	0.895	A	2	A	B
40		1,2,4,5-Tetrachlorobenzene	216	7.35	0.896	A	2	A	B
41	C	2,4,6-Trichlorophenol	196	7.44	0.908	A	3	A	B
42		2,4,5-Trichlorophenol	196	7.47	0.912	A	3	A	B
43	S	2-Fluorobiphenyl	172	7.51	0.917	A	2	A	B
44		Biphenyl	154	7.62	0.930	A	2	A	B
45		2-Chloronaphthalene	162	7.66	0.934	A	2	A	B
46		2-Nitroaniline	138	7.73	0.943	A	2	A	B
47		Dimethylphthalate	163	7.87	0.961	A	2	A	B
48		Acenaphthylene	152	8.06	0.984	A	2	A	B
49		2,6-Dinitrotoluene	165	7.94	0.969	A	2	A	B
50		3-Nitroaniline	138	8.12	0.991	A	2	A	B
51	M C	Acenaphthene	153	8.23	1.004	A	2	A	B
52	P	2,4-Dinitrophenol	184	8.21	1.002	QO	1	A	B
53		Dibenzofuran	168	8.39	1.024	A	2	A	B
54	M P	4-Nitrophenol	65	8.23	1.005	A	2	A	B
55	M	2,4-Dinitrotoluene	165	8.33	1.017	LO	2	A	B
56		2,3,4,6-Tetrachlorophenol	232	8.49	1.036	A	2	A	B
57		Fluorene	166	8.72	1.064	A	2	A	B
58		Diethylphthalate	149	8.54	1.042	A	2	A	B
59		4-Chlorophenyl phenyl ether	204	8.69	1.060	A	2	A	B
60		4-Nitroaniline	138	8.71	1.063	A	2	A	B
61	I	Phenanthrene-d10	188	9.68	1.000	A	2	A	B
62		4,6-Dinitro-2-methylphenol	198	8.78	0.907	QO	2	A	B
63		n-Nitrosodiphenylamine	169	8.84	0.913	A	2	A	B

64		1,2-Diphenylhydrazine	77	8.89	0.918	A	2	A	B
65	S	2,4,6-Tribromophenol	330	9.00	0.929	A	2	A	B
66		4-Bromophenyl-phenyl ether	248	9.22	0.952	A	2	A	B
67		Hexachlorobenzene	284	9.31	0.962	A	2	A	B
68		Atrazine	200	9.33	0.963	A	2	A	B
69	M C	Pentachlorophenol	266	9.49	0.980	LO	2	A	B
70		Phenanthrene	178	9.71	1.003	A	2	A	B
71		Anthracene	178	9.76	1.008	A	2	A	B
72		Carbazole	167	9.89	1.021	LO	2	A	B
73		Di-n-butylphthalate	149	10.16	1.049	A	2	A	B
74	C	Fluoranthene	202	10.88	1.124	A	2	A	B
75	I	Chrysene-d12	240	12.52	1.000	A	2	A	B
76		Benzidine	184	10.99	0.878	LO	2	A	B
77	M	Pyrene	202	11.15	0.891	A	2	A	B
78	S	p-Terphenyl-d14	244	11.25	0.899	A	2	A	B
79		Butylbenzylphthalate	149	11.75	0.939	A	2	A	B
80		Benzo(a)anthracene	228	12.50	0.999	A	2	A	B
81		3,3'-Dichlorobenzidine	252	12.43	0.993	A	2	A	B
82		Chrysene	228	12.55	1.003	A	2	A	B
83		bis(2-Ethylhexyl)phthalate	149	12.42	0.992	A	2	A	B
84	I	Perylene-d12	264	14.51	1.000	A	2	A	B
85	C	Di-n-octylphthalate	149	13.21	0.911	A	1	A	B
86		Benzo(b)fluoranthene	252	13.90	0.958	A	3	A	B
87		Benzo(k)fluoranthene	252	13.94	0.961	A	3	A	B
88	C	Benzo(a)pyrene	252	14.42	0.994	A	3	A	B
89		Indeno(1,2,3-cd)pyrene	276	16.63	1.146	A	2	A	B
90		Dibenzo(a,h)anthracene	278	16.64	1.147	A	2	A	B
91		Benzo(g,h,i)perylene	276	17.28	1.191	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

0426ABNS.M Fri Jul 07 10:56:43 2017 SS

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00032.D Vial: 3
Acq On : 26 Apr 2017 19:14 Operator: GCH
Sample : SEQ-CAL@X2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:16:21 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	283186	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	941639	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	428667	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	757453	40.00	ug/kg	0.00
75) Chrysene-d12	12.96	240	647526	40.00	ug/kg	0.00
84) Perylene-d12	15.21	264	527212	40.00	ug/kg	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	4.37	112	22187	2.10	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	2.10%#		
7) Phenol-d6	5.15	99	26993	2.20	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	2.20%#		
22) Nitrobenzene-d5	6.08	82	20797	2.08	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	4.16%#		
43) 2-Fluorobiphenyl	7.84	172	44450	2.26	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	4.52%#		
65) 2,4,6-Tribromophenol	9.34	330	3290m	1.56	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.56%#		
78) p-Terphenyl-d14	11.66	244	35284	2.09	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	4.18%#		
Target Compounds						Qvalue
2) Pyridine	3.31	79	23781	2.19	ng/uL	99
3) N-Nitroso-dimethylamine	3.25	42	8656	2.06	ng/uL	91
5) Benzaldehyde	5.16	77	9446	1.51	ug/kg	91
6) Aniline	5.25	93	23805	1.87	ug/kg	97
8) Phenol	5.17	94	26184	2.28	ug/kg	99
9) bis(2-Chloroethyl)ether	5.28	93	20791	2.28	ug/kg	100
10) 2-Chlorophenol	5.37	128	20550	2.11	ug/kg	96
11) 1,3-Dichlorobenzene	5.52	146	24224	2.25	ug/kg	98
12) 1,4-Dichlorobenzene	5.58	146	26078m	2.32	ug/kg	
13) Benzyl Alcohol	5.66	108	12474	2.12	ug/kg	99
14) 1,2-Dichlorobenzene	5.74	146	23599	2.29	ug/kg	99
15) 2-Methylphenol	5.74	108	18240	2.20	ug/kg	97
16) bis(2-Chloroisopropyl)ethe	5.78	45	28979m	2.26	ug/kg	
17) Acetophenone	5.92	105	27078	2.28	ug/kg#	62
18) 3+4-Methylphenol	5.87	108	18357	2.18	ug/kg	98
19) n-Nitroso-di-n-propylamine	5.90	70	10697	2.11	ug/kg	83
20) Hexachloroethane	6.06	117	8324	2.06	ug/kg	96
23) Nitrobenzene	6.10	77	19763	2.16	ug/kg	97
24) Isophorone	6.31	82	31374	2.12	ug/kg	99
25) 2-Nitrophenol	6.41	139	7119m	1.67	ug/kg	
26) 2,4-Dimethylphenol	6.40	107	17724	2.24	ug/kg	99
27) bis(2-Chloroethoxy)methane	6.49	93	20819	2.24	ug/kg	99
28) 2,4-Dichlorophenol	6.63	162	13458	1.89	ug/kg	95
29) Benzoic Acid	6.41	105	2576m	1.01	ug/kg	
30) 1,2,4-Trichlorobenzene	6.73	180	20067	2.21	ug/kg	99
31) Naphthalene	6.82	128	59745	2.29	ug/kg	99
32) 2,6-Dichlorophenol	6.86	162	14799	2.06	ug/kg	100
33) 4-Chloroaniline	6.84	127	19745	2.15	ug/kg	98
34) Hexachlorobutadiene	6.92	225	11295	2.13	ug/kg	97
35) Caprolactam	7.14	113	3902	1.75	ug/kg	92
36) 4-Chloro-3-methylphenol	7.28	107	12753	1.99	ug/kg	98
37) 2-Methylnaphthalene	7.49	142	55511	3.37	ug/kg	99
39) Hexachlorocyclopentadiene	7.65	237	8322	1.74	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.66	216	19997	2.22	ug/kg	97
41) 2,4,6-Trichlorophenol	7.76	196	8229	1.74	ug/kg	94
42) 2,4,5-Trichlorophenol	7.80	196	9079	1.78	ug/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00032.D Vial: 3
Acq On : 26 Apr 2017 19:14 Operator: GCH
Sample : SEQ-CAL@X2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:16:21 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

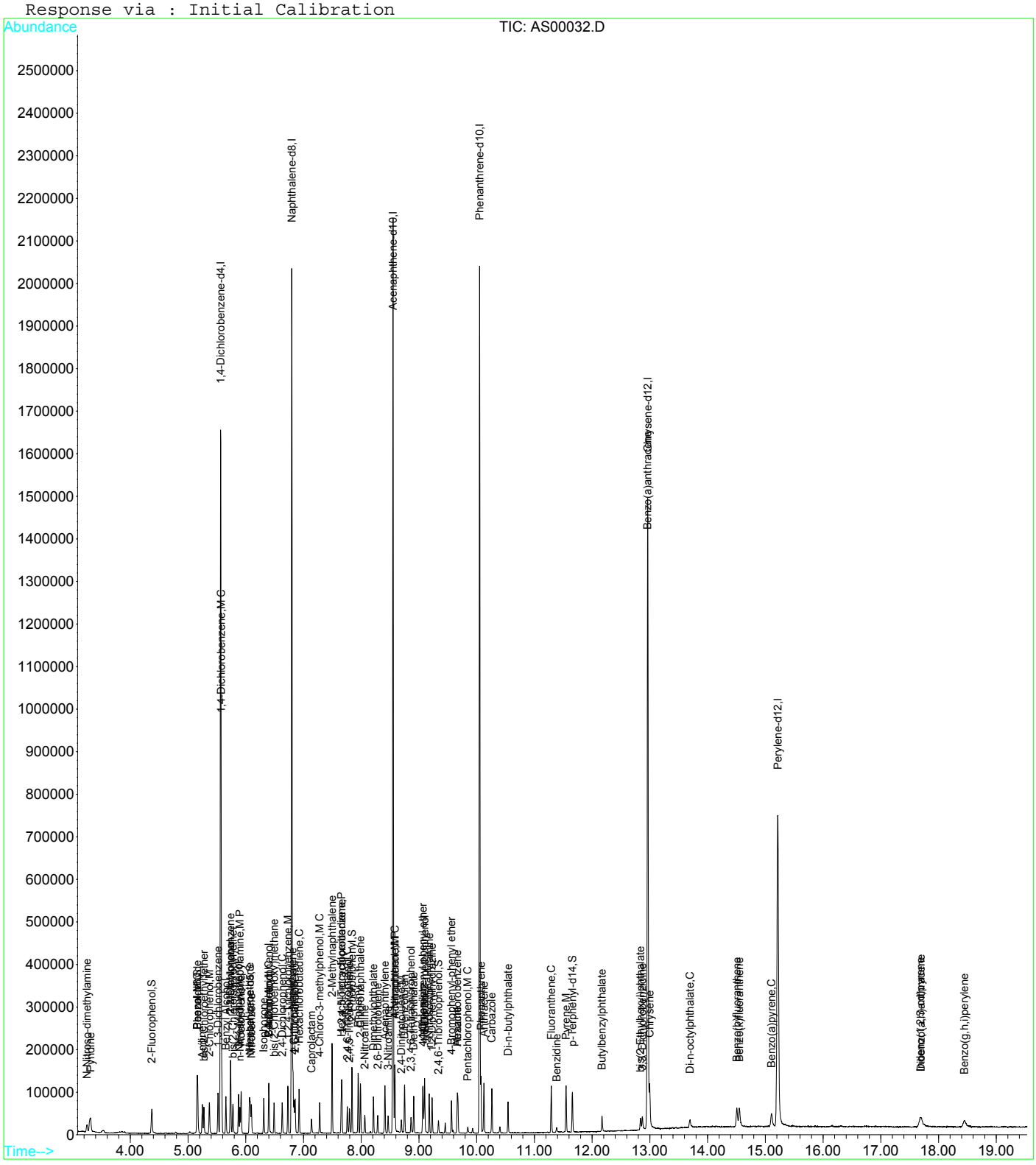
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	42685	2.27	ug/kg	99
45)	2-Chloronaphthalene	7.99	162	33759	2.24	ug/kg	100
46)	2-Nitroaniline	8.06	138	7358	1.73	ug/kg	97
47)	Dimethylphthalate	8.21	163	32727	2.22	ug/kg	99
48)	Acenaphthylene	8.41	152	44969	2.12	ug/kg	100
49)	2,6-Dinitrotoluene	8.29	165	4529	1.56	ug/kg	84
50)	3-Nitroaniline	8.47	138	5169m	2.16	ug/kg	
51)	Acenaphthene	8.58	153	34125	2.21	ug/kg	98
53)	Dibenzofuran	8.75	168	47188	2.29	ug/kg	99
54)	4-Nitrophenol	8.59	65	3694m	1.61	ug/kg	
55)	2,4-Dinitrotoluene	8.70	165	5489m	1.57	ug/kg	
56)	2,3,4,6-Tetrachlorophenol	8.86	232	5593m	1.62	ug/kg	
57)	Fluorene	9.10	166	36314	2.20	ug/kg	99
58)	Diethylphthalate	8.91	149	29141	2.14	ug/kg	99
59)	4-Chlorophenyl phenyl ethe	9.07	204	17076	2.15	ug/kg	97
60)	4-Nitroaniline	9.08	138	3795m	1.80	ug/kg	
62)	4,6-Dinitro-2-methylphenol	9.11	198	955m	0.75	ug/kg	
63)	n-Nitrosodiphenylamine	9.18	169	22337	2.24	ug/kg	98
64)	1,2-Diphenylhydrazine	9.23	77	28719	2.16	ug/kg	98
66)	4-Bromophenyl-phenyl ether	9.56	248	9330	2.05	ug/kg	93
67)	Hexachlorobenzene	9.67	284	10490	2.17	ug/kg	96
68)	Atrazine	9.67	200	6683	1.98	ug/kg	96
69)	Pentachlorophenol	9.84	266	2561m	1.18	ug/kg	
70)	Phenanthrene	10.07	178	48324	2.30	ug/kg	98
71)	Anthracene	10.13	178	45152	2.15	ug/kg	99
72)	Carbazole	10.26	167	40520m	3.58	ug/kg	
73)	Di-n-butylphthalate	10.54	149	34497	1.86	ug/kg	98
74)	Fluoranthene	11.29	202	45896	2.03	ug/kg	100
76)	Benzidine	11.39	184	3280m	2.29	ug/kg	
77)	Pyrene	11.55	202	48845	2.11	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	10435m	1.56	ug/kg	
80)	Benzo(a)anthracene	12.95	228	38697	2.07	ug/kg	98
81)	3,3'-Dichlorobenzidine	12.87	252	7364m	1.98	ug/kg	
82)	Chrysene	13.00	228	39667	2.11	ug/kg	98
83)	bis(2-Ethylhexyl)phthalate	12.84	149	17465m	2.15	ug/kg	
85)	Di-n-octylphthalate	13.69	149	25109m	2.18	ug/kg	
86)	Benzo(b)fluoranthene	14.51	252	28625	1.92	ug/kg	98
87)	Benzo(k)fluoranthene	14.55	252	32392m	2.02	ug/kg	
88)	Benzo(a)pyrene	15.11	252	28902m	2.04	ug/kg	
89)	Indeno(1,2,3-cd)pyrene	17.68	276	24881m	1.74	ug/kg	
90)	Dibenzo(a,h)anthracene	17.70	278	19504m	1.74	ug/kg	
91)	Benzo(g,h,i)perylene	18.45	276	22881m	1.92	ug/kg	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00032.D Vial: 3
Acq On : 26 Apr 2017 19:14 Operator: GCH
Sample : SEQ-CAL@X2 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



12 12.8.

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00033.D Vial: 4
Acq On : 26 Apr 2017 19:41 Operator: GCH
Sample : SEQ-CAL@X5 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 13:31:47 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	289298	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	977039	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	451874	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	802970	40.00	ug/kg	0.00
75) Chrysene-d12	12.96	240	695686	40.00	ug/kg	0.00
84) Perylene-d12	15.21	264	573036	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.38	112	58551	5.27	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 5.27%#			
7) Phenol-d6	5.16	99	69769	5.38	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 5.38%#			
22) Nitrobenzene-d5	6.08	82	53383	5.04	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 10.08%#			
43) 2-Fluorobiphenyl	7.84	172	113512	5.35	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 10.70%#			
65) 2,4,6-Tribromophenol	9.34	330	10544m	4.68	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 4.68%#			
78) p-Terphenyl-d14	11.66	244	101278	5.45	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 10.90%#			
Target Compounds						Qvalue
2) Pyridine	3.31	79	60287	5.32	ng/uL	95
3) N-Nitroso-dimethylamine	3.25	42	22322	5.17	ng/uL	98
5) Benzaldehyde	5.16	77	24962	4.17	ug/kg	96
6) Aniline	5.25	93	65232	5.03	ug/kg	98
8) Phenol	5.17	94	66146	5.47	ug/kg	99
9) bis(2-Chloroethyl)ether	5.28	93	49830	5.19	ug/kg	95
10) 2-Chlorophenol	5.37	128	53990	5.29	ug/kg	99
11) 1,3-Dichlorobenzene	5.52	146	61118	5.42	ug/kg	100
12) 1,4-Dichlorobenzene	5.58	146	64227m	5.44	ug/kg	
13) Benzyl Alcohol	5.66	108	32195	5.26	ug/kg	99
14) 1,2-Dichlorobenzene	5.74	146	58969	5.46	ug/kg	99
15) 2-Methylphenol	5.74	108	47142	5.44	ug/kg	99
16) bis(2-Chloroisopropyl)ethe	5.78	45	73295m	5.48	ug/kg	
17) Acetophenone	5.92	105	67699	5.43	ug/kg#	60
18) 3+4-Methylphenol	5.87	108	47178	5.35	ug/kg	100
19) n-Nitroso-di-n-propylamine	5.90	70	28106	5.32	ug/kg	81
20) Hexachloroethane	6.06	117	22085	5.32	ug/kg	98
23) Nitrobenzene	6.10	77	49744	5.08	ug/kg	98
24) Isophorone	6.31	82	82398	5.28	ug/kg	99
25) 2-Nitrophenol	6.41	139	20403m	4.51	ug/kg	
26) 2,4-Dimethylphenol	6.40	107	45970	5.44	ug/kg	96
27) bis(2-Chloroethoxy)methane	6.49	93	52530	5.33	ug/kg	98
28) 2,4-Dichlorophenol	6.63	162	38086	5.10	ug/kg	99
29) Benzoic Acid	6.42	105	8318m	3.05	ug/kg	
30) 1,2,4-Trichlorobenzene	6.73	180	51808	5.36	ug/kg	98
31) Naphthalene	6.82	128	153196	5.56	ug/kg	99
32) 2,6-Dichlorophenol	6.86	162	39797	5.21	ug/kg	98
33) 4-Chloroaniline	6.84	127	52481	5.47	ug/kg	99
34) Hexachlorobutadiene	6.92	225	30477	5.45	ug/kg	98
35) Caprolactam	7.14	113	11630	4.92	ug/kg	98
36) 4-Chloro-3-methylphenol	7.28	107	35713	5.26	ug/kg	99
37) 2-Methylnaphthalene	7.50	142	147944	8.48	ug/kg	98
39) Hexachlorocyclopentadiene	7.65	237	23079	4.51	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.67	216	52507	5.39	ug/kg	99
41) 2,4,6-Trichlorophenol	7.76	196	25164	4.96	ug/kg	98
42) 2,4,5-Trichlorophenol	7.80	196	27322	4.98	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00033.D Vial: 4
Acq On : 26 Apr 2017 19:41 Operator: GCH
Sample : SEQ-CAL@X5 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 13:31:47 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

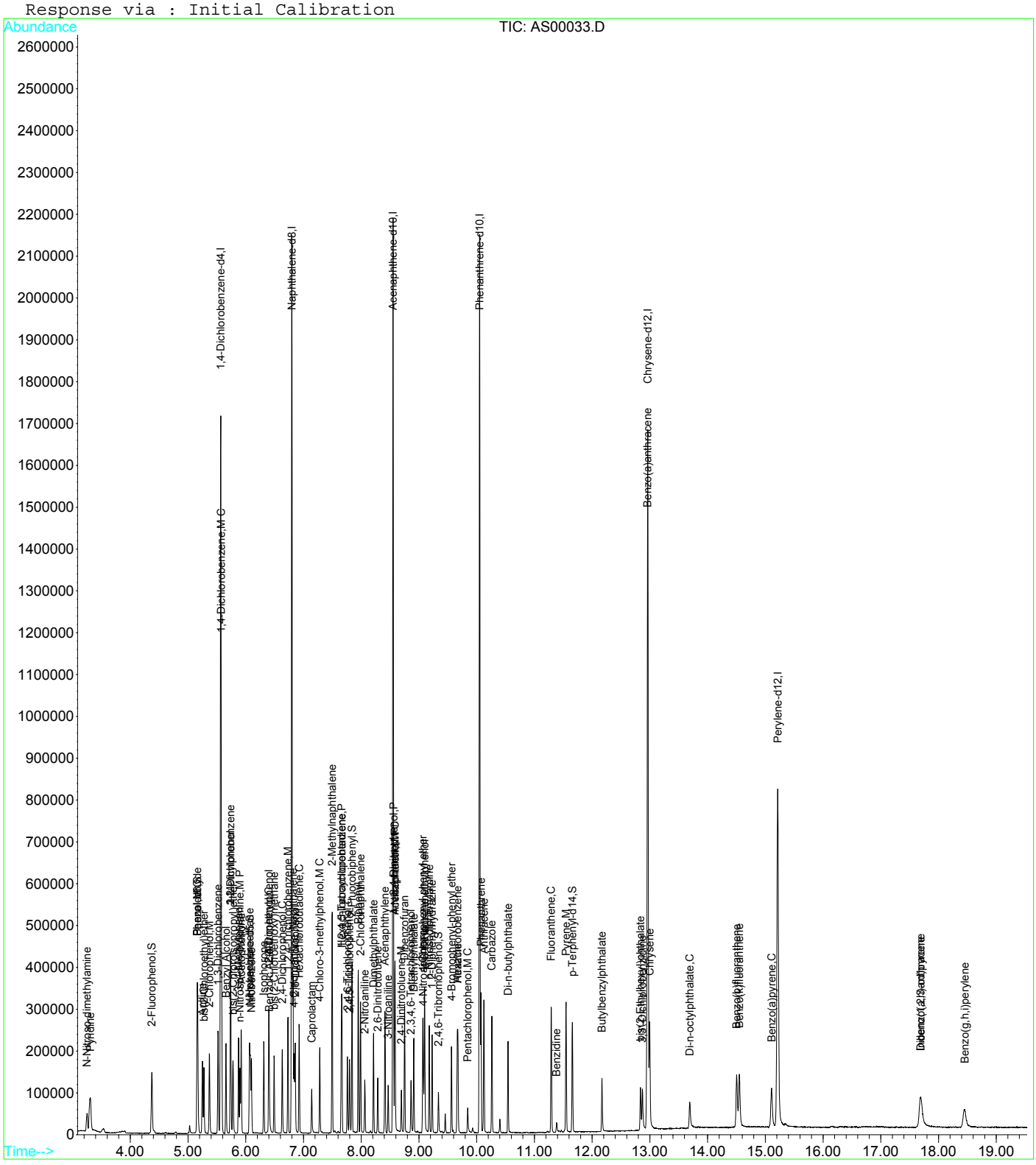
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	111182	5.47	ug/kg	99
45)	2-Chloronaphthalene	7.99	162	88164	5.43	ug/kg	99
46)	2-Nitroaniline	8.06	138	21290	4.63	ug/kg	96
47)	Dimethylphthalate	8.21	163	88004	5.50	ug/kg	99
48)	Acenaphthylene	8.41	152	124076	5.43	ug/kg	99
49)	2,6-Dinitrotoluene	8.29	165	14415	4.59	ug/kg	94
50)	3-Nitroaniline	8.47	138	15368m	5.90	ug/kg	
51)	Acenaphthene	8.58	153	89471	5.39	ug/kg	99
52)	2,4-Dinitrophenol	8.57	184	1128m	1.88	ug/kg	
53)	Dibenzofuran	8.75	168	120368	5.42	ug/kg	100
54)	4-Nitrophenol	8.59	65	8730m	4.14	ug/kg	
55)	2,4-Dinitrotoluene	8.70	165	15435	4.10	ug/kg	91
56)	2,3,4,6-Tetrachlorophenol	8.86	232	17453m	4.76	ug/kg	
57)	Fluorene	9.10	166	95968	5.37	ug/kg	98
58)	Diethylphthalate	8.91	149	77996	5.29	ug/kg	99
59)	4-Chlorophenyl phenyl ethe	9.07	204	45686	5.35	ug/kg	98
60)	4-Nitroaniline	9.08	138	9880m	4.32	ug/kg	
62)	4,6-Dinitro-2-methylphenol	9.11	198	3207	2.31	ug/kg	98
63)	n-Nitrosodiphenylamine	9.18	169	60731	5.58	ug/kg	99
64)	1,2-Diphenylhydrazine	9.23	77	79504	5.53	ug/kg	98
66)	4-Bromophenyl-phenyl ether	9.56	248	26442	5.38	ug/kg	98
67)	Hexachlorobenzene	9.67	284	28072	5.35	ug/kg	99
68)	Atrazine	9.67	200	20389	5.64	ug/kg	98
69)	Pentachlorophenol	9.84	266	8989m	3.90	ug/kg	
70)	Phenanthrene	10.07	178	126574	5.53	ug/kg	99
71)	Anthracene	10.13	178	125047	5.47	ug/kg	100
72)	Carbazole	10.26	167	109764m	8.79	ug/kg	
73)	Di-n-butylphthalate	10.54	149	105579	5.27	ug/kg	99
74)	Fluoranthene	11.29	202	131651	5.40	ug/kg	100
76)	Benzidine	11.38	184	7393m	5.16	ug/kg	
77)	Pyrene	11.55	202	138453	5.45	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	32818	4.61	ug/kg	100
80)	Benzo(a)anthracene	12.95	228	109733	5.32	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.87	252	23549m	5.78	ug/kg	
82)	Chrysene	13.00	228	111126	5.41	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.84	149	36734	4.23	ug/kg	98
85)	Di-n-octylphthalate	13.69	149	55473m	4.49	ug/kg	
86)	Benzo(b)fluoranthene	14.50	252	78543	4.73	ug/kg	98
87)	Benzo(k)fluoranthene	14.55	252	89127	5.02	ug/kg	97
88)	Benzo(a)pyrene	15.11	252	80169m	5.15	ug/kg	
89)	Indeno(1,2,3-cd)pyrene	17.68	276	74247m	4.73	ug/kg	
90)	Dibenzo(a,h)anthracene	17.70	278	59108m	4.79	ug/kg	
91)	Benzo(g,h,i)perylene	18.45	276	63465m	4.84	ug/kg	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00033.D Vial: 4
Acq On : 26 Apr 2017 19:41 Operator: GCH
Sample : SEQ-CAL@X5 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:45 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



12 12.8.

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00035.D Vial: 6
Acq On : 26 Apr 2017 20:35 Operator: GCH
Sample : SEQ-CAL@X20 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:46 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:00:03 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	271703	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	891890	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	407728	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	736256	40.00	ug/kg	0.00
75) Chrysene-d12	12.97	240	648151	40.00	ug/kg	0.00
84) Perylene-d12	15.22	264	532931	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.37	112	206153	21.04	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 21.04%#			
7) Phenol-d6	5.16	99	238949	20.57	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 20.57%#			
22) Nitrobenzene-d5	6.08	82	185222	23.65	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 47.30%			
43) 2-Fluorobiphenyl	7.84	172	369374	21.87	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 43.74%			
65) 2,4,6-Tribromophenol	9.34	330	40268	21.58	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 21.58%#			
78) p-Terphenyl-d14	11.66	244	335849	21.16	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.32%			
Target Compounds						Qvalue
2) Pyridine	3.31	79	202168	18.70	ng/uL	81
3) N-Nitroso-dimethylamine	3.25	42	80982	14.26	ng/uL	91
5) Benzaldehyde	5.16	77	113410m	34.90	ug/kg	
6) Aniline	5.25	93	239552	19.41	ug/kg	88
8) Phenol	5.17	94	219146	20.43	ug/kg	83
9) bis(2-Chloroethyl)ether	5.28	93	176635	23.76	ug/kg	63
10) 2-Chlorophenol	5.37	128	186934	20.25	ug/kg	95
11) 1,3-Dichlorobenzene	5.52	146	203813	20.13	ug/kg	96
12) 1,4-Dichlorobenzene	5.52	146	203813	18.93	ug/kg	93
13) Benzyl Alcohol	5.66	108	109271	19.72	ug/kg	89
14) 1,2-Dichlorobenzene	5.74	146	195200	20.42	ug/kg	97
15) 2-Methylphenol	5.74	108	157474	20.09	ug/kg	94
16) bis(2-Chloroisopropyl)ethe	5.78	45	246017	13.96	ug/kg#	72
17) Acetophenone	5.92	105	223424	20.00	ug/kg#	92
18) 3+4-Methylphenol	5.88	108	159625	20.14	ug/kg	98
19) n-Nitroso-di-n-propylamine	5.90	70	94438	20.15	ug/kg	91
20) Hexachloroethane	6.06	117	75441	20.44	ug/kg	90
23) Nitrobenzene	6.10	77	173289	23.52	ug/kg	91
24) Isophorone	6.31	82	277254	20.58	ug/kg	95
25) 2-Nitrophenol	6.41	139	78788	26.58	ug/kg	86
26) 2,4-Dimethylphenol	6.40	107	149523	20.51	ug/kg	94
27) bis(2-Chloroethoxy)methane	6.49	93	171115	20.54	ug/kg	95
28) 2,4-Dichlorophenol	6.64	162	134219	20.75	ug/kg	96
29) Benzoic Acid	6.43	105	42365m	28.18	ug/kg	
30) 1,2,4-Trichlorobenzene	6.73	180	169660	22.38	ug/kg	97
31) Naphthalene	6.82	128	490553	20.15	ug/kg	90
32) 2,6-Dichlorophenol	6.86	162	135102	21.17	ug/kg	96
33) 4-Chloroaniline	6.84	127	177749	15.63	ug/kg	97
34) Hexachlorobutadiene	6.92	225	97391	22.88	ug/kg	99
35) Caprolactam	7.15	113	41028	20.64	ug/kg	77
36) 4-Chloro-3-methylphenol	7.29	107	119604	20.56	ug/kg	93
37) 2-Methylnaphthalene	7.50	142	472358	32.00	ug/kg	94
39) Hexachlorocyclopentadiene	7.66	237	89794	25.37	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.67	216	169500	23.36	ug/kg	96
41) 2,4,6-Trichlorophenol	7.76	196	90221	23.00	ug/kg	95
42) 2,4,5-Trichlorophenol	7.80	196	97891	22.38	ug/kg	98

(#) = qualifier out of range (m) = manual integration
AS00035.D 0426ABNS.M Mon Jun 12 11:22:02 2017 SS Page 1

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00035.D Vial: 6
Acq On : 26 Apr 2017 20:35 Operator: GCH
Sample : SEQ-CAL@X20 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:46 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:00:03 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

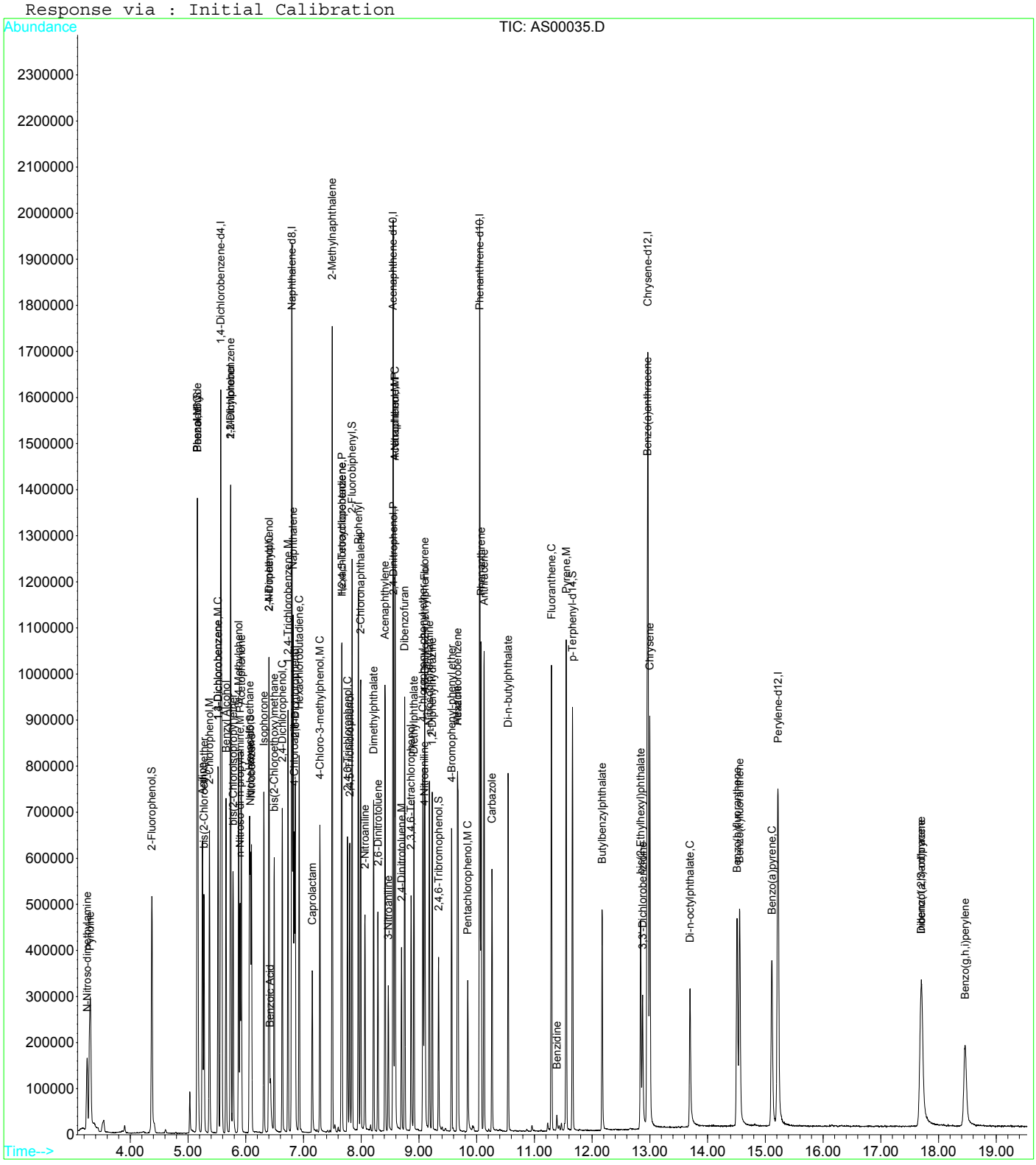
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	360136	22.06	ug/kg	91
45)	2-Chloronaphthalene	7.99	162	284887	21.44	ug/kg	91
46)	2-Nitroaniline	8.07	138	81178	27.06	ug/kg	94
47)	Dimethylphthalate	8.22	163	280393	21.12	ug/kg	99
48)	Acenaphthylene	8.41	152	406006	21.82	ug/kg	89
49)	2,6-Dinitrotoluene	8.29	165	55949	27.74	ug/kg	93
50)	3-Nitroaniline	8.47	138	48337	27.32	ug/kg	86
51)	Acenaphthene	8.58	153	293106	22.56	ug/kg	96
52)	2,4-Dinitrophenol	8.57	184	6864	37.38	ug/kg#	1
53)	Dibenzofuran	8.75	168	391245	22.18	ug/kg	93
54)	4-Nitrophenol	8.59	65	38152m	21.12	ug/kg	
55)	2,4-Dinitrotoluene	8.70	165	64569	29.23	ug/kg	91
56)	2,3,4,6-Tetrachlorophenol	8.86	232	63385	23.68	ug/kg	98
57)	Fluorene	9.10	166	314747	22.35	ug/kg	95
58)	Diethylphthalate	8.91	149	255061	21.27	ug/kg	92
59)	4-Chlorophenyl phenyl ethe	9.07	204	148901	22.94	ug/kg	97
60)	4-Nitroaniline	9.08	138	32168	21.58	ug/kg	88
62)	4,6-Dinitro-2-methylphenol	9.11	198	19175	31.33	ug/kg	94
63)	n-Nitrosodiphenylamine	9.18	169	192657	20.01	ug/kg	94
64)	1,2-Diphenylhydrazine	9.23	77	259763	19.66	ug/kg	95
66)	4-Bromophenyl-phenyl ether	9.57	248	86095	20.61	ug/kg	98
67)	Hexachlorobenzene	9.67	284	90448	20.10	ug/kg	98
68)	Atrazine	9.68	200	68439	19.67	ug/kg	98
69)	Pentachlorophenol	9.85	266	39632	23.93	ug/kg	99
70)	Phenanthrene	10.08	178	404510	20.16	ug/kg	99
71)	Anthracene	10.13	178	408069	20.16	ug/kg	99
72)	Carbazole	10.27	167	231096	16.20	ug/kg	100
73)	Di-n-butylphthalate	10.54	149	368244	19.46	ug/kg	99
74)	Fluoranthene	11.30	202	449981	21.33	ug/kg	98
76)	Benzidine	11.39	184	12896m	12.89	ug/kg	
77)	Pyrene	11.55	202	468841	21.93	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	130641	18.86	ug/kg	99
80)	Benzo(a)anthracene	12.95	228	374012	21.67	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.87	252	78379	20.56	ug/kg	98
82)	Chrysene	13.00	228	368569	21.74	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.84	149	158622	18.04	ug/kg	99
85)	Di-n-octylphthalate	13.70	149	213975	16.84	ug/kg	99
86)	Benzo(b)fluoranthene	14.51	252	299400	19.18	ug/kg	99
87)	Benzo(k)fluoranthene	14.56	252	315795	20.33	ug/kg	98
88)	Benzo(a)pyrene	15.11	252	268846	19.83	ug/kg	98
89)	Indeno(1,2,3-cd)pyrene	17.69	276	279286	22.83	ug/kg#	75
90)	Dibenzo(a,h)anthracene	17.71	278	228552m	24.03	ug/kg	
91)	Benzo(g,h,i)perylene	18.46	276	228197	22.72	ug/kg#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00035.D Vial: 6
Acq On : 26 Apr 2017 20:35 Operator: GCH
Sample : SEQ-CAL@X20 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:46 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



AS00035.D 0426ABNS.M Mon Jun 12 11:22:03 2017 SS Page 3

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00036.D Vial: 7
Acq On : 26 Apr 2017 21:03 Operator: GCH
Sample : SEQ-CAL@X50 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:40 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:00:03 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	282930	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	941754	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	432367	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	795736	40.00	ug/kg	0.00
75) Chrysene-d12	12.97	240	706301	40.00	ug/kg	0.00
84) Perylene-d12	15.22	264	584425	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.38	112	524758	51.42	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 51.42%			
7) Phenol-d6	5.16	99	607332	50.20	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 50.20%			
22) Nitrobenzene-d5	6.08	82	504961	61.06	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 122.12%			
43) 2-Fluorobiphenyl	7.84	172	979889	54.71	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 109.42%			
65) 2,4,6-Tribromophenol	9.34	330	122272	60.63	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 60.63%			
78) p-Terphenyl-d14	11.66	244	911324	52.68	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 105.36%			
Target Compounds						Qvalue
2) Pyridine	3.31	79	525099	46.65	ng/uL	79
3) N-Nitroso-dimethylamine	3.25	42	204957	34.65	ng/uL	95
5) Benzaldehyde	5.16	77	283693m	83.83	ug/kg	
6) Aniline	5.25	93	636693	49.54	ug/kg	89
8) Phenol	5.18	94	560587	50.19	ug/kg	84
9) bis(2-Chloroethyl)ether	5.28	93	444178	57.39	ug/kg	65
10) 2-Chlorophenol	5.37	128	486984	50.65	ug/kg	95
11) 1,3-Dichlorobenzene	5.52	146	526368	49.91	ug/kg	96
12) 1,4-Dichlorobenzene	5.52	146	526368	46.95	ug/kg	94
13) Benzyl Alcohol	5.66	108	291291	50.48	ug/kg	89
14) 1,2-Dichlorobenzene	5.74	146	499873	50.21	ug/kg	97
15) 2-Methylphenol	5.74	108	406479	49.79	ug/kg	95
16) bis(2-Chloroisopropyl)ethe	5.78	45	608334	33.16	ug/kg#	72
17) Acetophenone	5.93	105	580402	49.90	ug/kg#	91
18) 3+4-Methylphenol	5.88	108	419114	50.77	ug/kg	97
19) n-Nitroso-di-n-propylamine	5.91	70	253747	52.00	ug/kg	69
20) Hexachloroethane	6.06	117	197197	51.30	ug/kg	89
23) Nitrobenzene	6.10	77	459306	59.03	ug/kg	92
24) Isophorone	6.32	82	728046	51.18	ug/kg	95
25) 2-Nitrophenol	6.41	139	248588	79.42	ug/kg	93
26) 2,4-Dimethylphenol	6.40	107	389469	50.59	ug/kg	94
27) bis(2-Chloroethoxy)methane	6.50	93	454862	51.72	ug/kg	95
28) 2,4-Dichlorophenol	6.64	162	359587	52.64	ug/kg	96
29) Benzoic Acid	6.46	105	155958	98.26	ug/kg#	67
30) 1,2,4-Trichlorobenzene	6.73	180	442800	55.33	ug/kg	98
31) Naphthalene	6.82	128	1258357	48.96	ug/kg	90
32) 2,6-Dichlorophenol	6.86	162	364039	54.01	ug/kg	96
33) 4-Chloroaniline	6.84	127	451945	37.63	ug/kg	98
34) Hexachlorobutadiene	6.93	225	261855	58.26	ug/kg	99
35) Caprolactam	7.17	113	118942	56.67	ug/kg	83
36) 4-Chloro-3-methylphenol	7.29	107	325972	53.08	ug/kg	94
37) 2-Methylnaphthalene	7.50	142	1191045	76.43	ug/kg	97
39) Hexachlorocyclopentadiene	7.66	237	257714	68.66	ug/kg	98
40) 1,2,4,5-Tetrachlorobenzene	7.67	216	451408	58.66	ug/kg	96
41) 2,4,6-Trichlorophenol	7.76	196	257218	61.83	ug/kg	94
42) 2,4,5-Trichlorophenol	7.80	196	274642	59.20	ug/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00036.D Vial: 7
Acq On : 26 Apr 2017 21:03 Operator: GCH
Sample : SEQ-CAL@X50 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:40 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 11:00:03 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

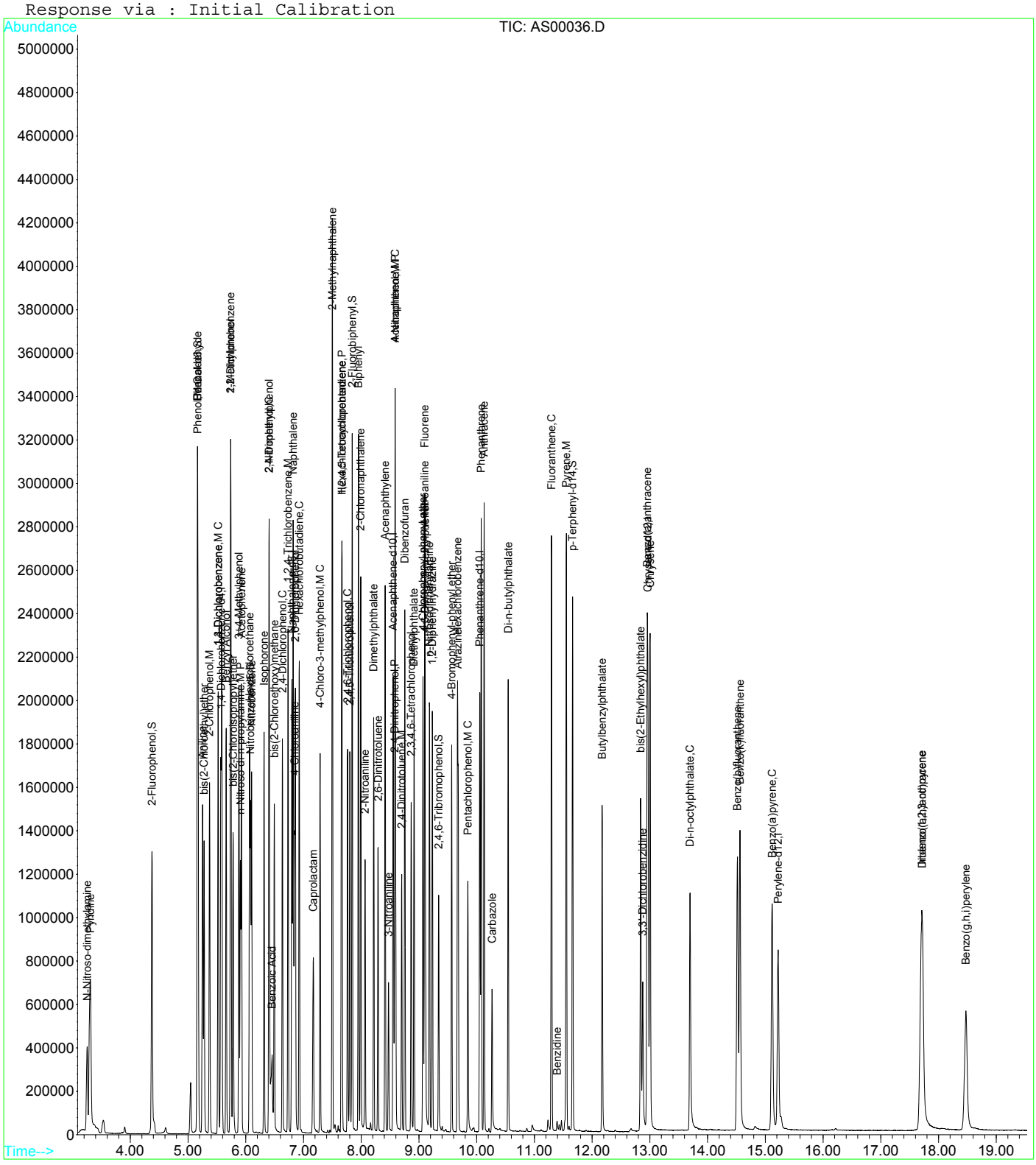
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	934792	54.00	ug/kg	91
45)	2-Chloronaphthalene	7.99	162	747067	53.02	ug/kg	92
46)	2-Nitroaniline	8.07	138	237892	74.77	ug/kg	94
47)	Dimethylphthalate	8.22	163	746008	52.99	ug/kg	99
48)	Acenaphthylene	8.41	152	1073011	54.38	ug/kg	90
49)	2,6-Dinitrotoluene	8.29	165	168556	78.80	ug/kg	95
50)	3-Nitroaniline	8.47	138	111587	59.48	ug/kg	89
51)	Acenaphthene	8.59	153	766326	55.62	ug/kg	97
52)	2,4-Dinitrophenol	8.57	184	37116	190.63	ug/kg#	1
53)	Dibenzofuran	8.76	168	1007011	53.83	ug/kg	93
54)	4-Nitrophenol	8.60	65	115696	60.40	ug/kg	89
55)	2,4-Dinitrotoluene	8.70	165	211023	90.09	ug/kg	95
56)	2,3,4,6-Tetrachlorophenol	8.87	232	196606	69.26	ug/kg	96
57)	Fluorene	9.10	166	819031	54.85	ug/kg	95
58)	Diethylphthalate	8.92	149	691815	54.39	ug/kg	93
59)	4-Chlorophenyl phenyl ethe	9.07	204	398659	57.93	ug/kg	99
60)	4-Nitroaniline	9.09	138	96059	60.78	ug/kg	90
62)	4,6-Dinitro-2-methylphenol	9.12	198	88631	134.00	ug/kg	98
63)	n-Nitrosodiphenylamine	9.18	169	506271	48.66	ug/kg	95
64)	1,2-Diphenylhydrazine	9.23	77	679022	47.55	ug/kg	96
66)	4-Bromophenyl-phenyl ether	9.57	248	238949	52.92	ug/kg	98
67)	Hexachlorobenzene	9.67	284	253806	52.18	ug/kg	99
68)	Atrazine	9.68	200	172755	45.93	ug/kg	98
69)	Pentachlorophenol	9.85	266	138532	77.38	ug/kg	98
70)	Phenanthrene	10.08	178	1078035	49.70	ug/kg	99
71)	Anthracene	10.13	178	1108786	50.67	ug/kg	99
72)	Carbazole	10.27	167	513050m	33.28	ug/kg	
73)	Di-n-butylphthalate	10.55	149	1024886	50.12	ug/kg	99
74)	Fluoranthene	11.30	202	1204645	52.84	ug/kg	99
76)	Benzidine	11.39	184	29254m	26.84	ug/kg	
77)	Pyrene	11.55	202	1238469	53.15	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	397951	52.71	ug/kg	100
80)	Benzo(a)anthracene	12.95	228	1023925	54.44	ug/kg	100
81)	3,3'-Dichlorobenzidine	12.88	252	186748	44.95	ug/kg	100
82)	Chrysene	13.00	228	1023841	55.41	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.84	149	507759	52.98	ug/kg	99
85)	Di-n-octylphthalate	13.69	149	763669	54.80	ug/kg	100
86)	Benzo(b)fluoranthene	14.52	252	864426	50.50	ug/kg	99
87)	Benzo(k)fluoranthene	14.56	252	921627	54.09	ug/kg	99
88)	Benzo(a)pyrene	15.12	252	815905	54.89	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	17.71	276	843522	62.88	ug/kg	99
90)	Dibenzo(a,h)anthracene	17.72	278	688906	66.06	ug/kg	99
91)	Benzo(g,h,i)perylene	18.47	276	698456	63.41	ug/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00036.D Vial: 7
Acq On : 26 Apr 2017 21:03 Operator: GCH
Sample : SEQ-CAL@X50 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:40 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00037.D Vial: 8
Acq On : 26 Apr 2017 21:30 Operator: GCH
Sample : SEQ-CAL@X60 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 15:05:41 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	286181	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	949388	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	443840	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	807003	40.00	ug/kg	0.00
75) Chrysene-d12	12.97	240	693696	40.00	ug/kg	0.00
84) Perylene-d12	15.22	264	574663	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.37	112	653648	58.32	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 58.32%			
7) Phenol-d6	5.16	99	739549	56.63	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 56.63%			
22) Nitrobenzene-d5	6.08	82	620481	59.30	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 118.60%			
43) 2-Fluorobiphenyl	7.84	172	1169768	55.50	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 111.00%			
65) 2,4,6-Tribromophenol	9.34	330	152797	65.84	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 65.84%			
78) p-Terphenyl-d14	11.66	244	1090172	57.50	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 115.00%			
Target Compounds						Qvalue
2) Pyridine	3.31	79	659198	57.87	ng/uL	96
3) N-Nitroso-dimethylamine	3.25	42	249718	57.64	ng/uL	99
5) Benzaldehyde	5.16	77	262829m	47.12	ug/kg	
6) Aniline	5.25	93	774325	60.05	ug/kg	99
8) Phenol	5.18	94	685820	56.26	ug/kg	98
9) bis(2-Chloroethyl)ether	5.28	93	532131	55.46	ug/kg	100
10) 2-Chlorophenol	5.37	128	593721	57.67	ug/kg	100
11) 1,3-Dichlorobenzene	5.52	146	640202	56.36	ug/kg	100
12) 1,4-Dichlorobenzene	5.58	146	673237m	56.84	ug/kg	
13) Benzyl Alcohol	5.66	108	354876	57.56	ug/kg	100
14) 1,2-Dichlorobenzene	5.74	146	606050	55.63	ug/kg	100
15) 2-Methylphenol	5.74	108	494364	56.55	ug/kg	99
16) bis(2-Chloroisopropyl)ethe	5.78	45	732722	54.44	ug/kg	99
17) Acetophenone	5.93	105	703678	56.03	ug/kg	99
18) 3+4-Methylphenol	5.88	108	507511	56.93	ug/kg	99
19) n-Nitroso-di-n-propylamine	5.91	70	305389	57.27	ug/kg	99
20) Hexachloroethane	6.06	117	241441	57.88	ug/kg	99
23) Nitrobenzene	6.10	77	555153	57.77	ug/kg	99
24) Isophorone	6.32	82	873978	57.06	ug/kg	100
25) 2-Nitrophenol	6.41	139	298270m	65.99	ug/kg	
26) 2,4-Dimethylphenol	6.40	107	469981	56.29	ug/kg	100
27) bis(2-Chloroethoxy)methane	6.49	93	546979	56.46	ug/kg	100
28) 2,4-Dichlorophenol	6.63	162	440258	59.74	ug/kg	99
29) Benzoic Acid	6.46	105	187281m	68.79	ug/kg	
30) 1,2,4-Trichlorobenzene	6.73	180	540930	56.91	ug/kg	98
31) Naphthalene	6.82	128	1534311	56.40	ug/kg	100
32) 2,6-Dichlorophenol	6.86	162	434581	57.47	ug/kg	100
33) 4-Chloroaniline	6.84	127	505155	53.83	ug/kg	100
34) Hexachlorobutadiene	6.92	225	316526	57.12	ug/kg	99
35) Caprolactam	7.17	113	147522	63.28	ug/kg	99
36) 4-Chloro-3-methylphenol	7.29	107	395397	58.89	ug/kg	100
37) 2-Methylnaphthalene	7.50	142	1430885	82.91	ug/kg	100
39) Hexachlorocyclopentadiene	7.66	237	317935	62.83	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.67	216	546192	56.09	ug/kg	100
41) 2,4,6-Trichlorophenol	7.76	196	310189	61.17	ug/kg	99
42) 2,4,5-Trichlorophenol	7.80	196	341514	62.07	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00037.D Vial: 8
Acq On : 26 Apr 2017 21:30 Operator: GCH
Sample : SEQ-CAL@X60 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 15:05:41 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

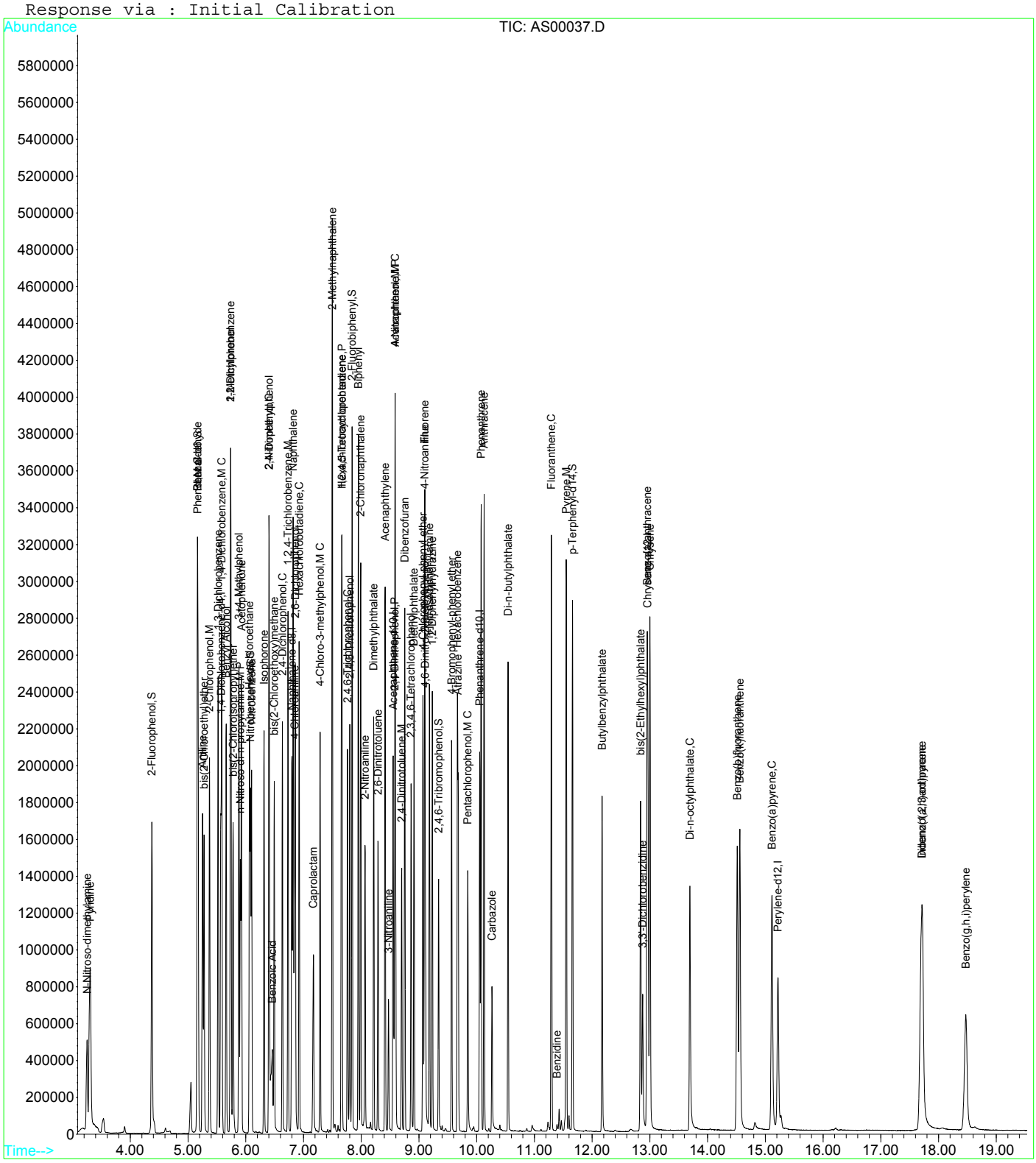
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	1135446	55.91	ug/kg	100
45)	2-Chloronaphthalene	7.99	162	901524	55.67	ug/kg	99
46)	2-Nitroaniline	8.07	138	301037	64.95	ug/kg	98
47)	Dimethylphthalate	8.22	163	900128	56.13	ug/kg	100
48)	Acenaphthylene	8.41	152	1292418	56.61	ug/kg	99
49)	2,6-Dinitrotoluene	8.29	165	204441m	64.18	ug/kg	
50)	3-Nitroaniline	8.47	138	120869m	46.30	ug/kg	
51)	Acenaphthene	8.59	153	918304	55.48	ug/kg	99
52)	2,4-Dinitrophenol	8.57	184	53408	88.77	ug/kg	80
53)	Dibenzofuran	8.76	168	1222400	55.32	ug/kg	100
54)	4-Nitrophenol	8.60	65	142149m	66.59	ug/kg	
55)	2,4-Dinitrotoluene	8.70	165	266062	69.69	ug/kg	99
56)	2,3,4,6-Tetrachlorophenol	8.86	232	245197	66.16	ug/kg	100
57)	Fluorene	9.10	166	982077	55.34	ug/kg	99
58)	Diethylphthalate	8.91	149	826390	56.40	ug/kg	99
59)	4-Chlorophenyl phenyl ethe	9.07	204	480068	56.38	ug/kg	99
60)	4-Nitroaniline	9.09	138	128069m	56.19	ug/kg	
62)	4,6-Dinitro-2-methylphenol	9.12	198	121496	85.05	ug/kg	98
63)	n-Nitrosodiphenylamine	9.18	169	621273	55.41	ug/kg	99
64)	1,2-Diphenylhydrazine	9.23	77	818118	55.73	ug/kg	100
66)	4-Bromophenyl-phenyl ether	9.57	248	286235	56.90	ug/kg	99
67)	Hexachlorobenzene	9.67	284	312558	58.01	ug/kg	100
68)	Atrazine	9.68	200	206047	55.82	ug/kg	99
69)	Pentachlorophenol	9.85	266	175363	74.30	ug/kg	99
70)	Phenanthrene	10.08	178	1303062	55.59	ug/kg	100
71)	Anthracene	10.13	178	1333798	56.86	ug/kg	99
72)	Carbazole	10.27	167	562849m	43.53	ug/kg	
73)	Di-n-butylphthalate	10.54	149	1227533	59.67	ug/kg	100
74)	Fluoranthene	11.30	202	1425517	56.88	ug/kg	99
76)	Benzidine	11.39	184	21072m	17.20	ug/kg	
77)	Pyrene	11.55	202	1472534	57.09	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	470763	64.78	ug/kg	99
80)	Benzo(a)anthracene	12.95	228	1220673	58.13	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.88	252	213391m	51.96	ug/kg	
82)	Chrysene	13.00	228	1187602	56.66	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.84	149	594608	67.32	ug/kg	100
85)	Di-n-octylphthalate	13.69	149	880378	70.07	ug/kg	99
86)	Benzo(b)fluoranthene	14.51	252	1025316	60.77	ug/kg	99
87)	Benzo(k)fluoranthene	14.56	252	1086710	59.99	ug/kg	99
88)	Benzo(a)pyrene	15.12	252	956466	59.24	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	17.70	276	1000857	61.98	ug/kg	99
90)	Dibenzo(a,h)anthracene	17.72	278	806153	63.09	ug/kg	99
91)	Benzo(g,h,i)perylene	18.47	276	828239	61.45	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00037.D Vial: 8
Acq On : 26 Apr 2017 21:30 Operator: GCH
Sample : SEQ-CAL@X60 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



AS00037.D 0426ABNS.M Mon Jun 12 11:22:07 2017 SS Page 3

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00038.D Vial: 9
Acq On : 26 Apr 2017 21:57 Operator: GCH
Sample : SEQ-CAL@X80 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 15:06:12 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.57	152	300116	40.00	ug/kg	0.00
21) Naphthalene-d8	6.80	136	998922	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.55	164	465551	40.00	ug/kg	0.00
61) Phenanthrene-d10	10.05	188	858004	40.00	ug/kg	0.00
75) Chrysene-d12	12.97	240	743187	40.00	ug/kg	0.00
84) Perylene-d12	15.21	264	624127	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.38	112	893210	76.75	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 76.75%			
7) Phenol-d6	5.17	99	1002686	73.99	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 73.99%			
22) Nitrobenzene-d5	6.08	82	850837	78.15	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 156.30%#			
43) 2-Fluorobiphenyl	7.84	172	1583402	72.39	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 144.78%#			
65) 2,4,6-Tribromophenol	9.34	330	217753	89.62	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 89.62%			
78) p-Terphenyl-d14	11.66	244	1506253	75.01	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 150.02%#			
Target Compounds						Qvalue
2) Pyridine	3.31	79	906579	76.87	ng/uL	96
3) N-Nitroso-dimethylamine	3.25	42	344757	76.77	ng/uL	99
5) Benzaldehyde	5.16	77	370144m	67.07	ug/kg	
6) Aniline	5.26	93	1015306	75.58	ug/kg	98
8) Phenol	5.18	94	919503	72.59	ug/kg	98
9) bis(2-Chloroethyl)ether	5.28	93	752868	76.00	ug/kg	96
10) 2-Chlorophenol	5.37	128	813782	76.20	ug/kg	99
11) 1,3-Dichlorobenzene	5.52	146	862653	73.06	ug/kg	100
12) 1,4-Dichlorobenzene	5.58	146	908843m	73.99	ug/kg	
13) Benzyl Alcohol	5.66	108	488450	76.48	ug/kg	100
14) 1,2-Dichlorobenzene	5.74	146	813712	71.95	ug/kg	100
15) 2-Methylphenol	5.75	108	670542	73.86	ug/kg	100
16) bis(2-Chloroisopropyl)ethe	5.78	45	962887m	68.83	ug/kg	
17) Acetophenone	5.93	105	948774	72.72	ug/kg	98
18) 3+4-Methylphenol	5.89	108	699169	75.54	ug/kg	99
19) n-Nitroso-di-n-propylamine	5.91	70	420373	76.10	ug/kg	96
20) Hexachloroethane	6.07	117	327191	75.47	ug/kg	99
23) Nitrobenzene	6.10	77	756559	75.69	ug/kg	98
24) Isophorone	6.32	82	1178731	73.93	ug/kg	99
25) 2-Nitrophenol	6.41	139	407231	86.67	ug/kg	97
26) 2,4-Dimethylphenol	6.40	107	635009	73.00	ug/kg	99
27) bis(2-Chloroethoxy)methane	6.50	93	746201	73.92	ug/kg	99
28) 2,4-Dichlorophenol	6.64	162	611375	79.76	ug/kg	99
29) Benzoic Acid	6.48	105	320191m	113.87	ug/kg	
30) 1,2,4-Trichlorobenzene	6.73	180	728793	73.62	ug/kg	99
31) Naphthalene	6.82	128	1979873	69.59	ug/kg	98
32) 2,6-Dichlorophenol	6.86	162	605039	77.15	ug/kg	100
33) 4-Chloroaniline	6.84	127	684479	70.23	ug/kg	99
34) Hexachlorobutadiene	6.93	225	442909	76.75	ug/kg	99
35) Caprolactam	7.18	113	209068	86.11	ug/kg	97
36) 4-Chloro-3-methylphenol	7.29	107	548521	78.54	ug/kg	99
37) 2-Methylnaphthalene	7.50	142	1883180	104.72	ug/kg	99
39) Hexachlorocyclopentadiene	7.66	237	441623	84.29	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.67	216	750887	74.22	ug/kg	100
41) 2,4,6-Trichlorophenol	7.76	196	440960	83.86	ug/kg	100
42) 2,4,5-Trichlorophenol	7.80	196	474025	82.95	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170426\AS00038.D Vial: 9
Acq On : 26 Apr 2017 21:57 Operator: GCH
Sample : SEQ-CAL@X80 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Thu Apr 27 15:06:12 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

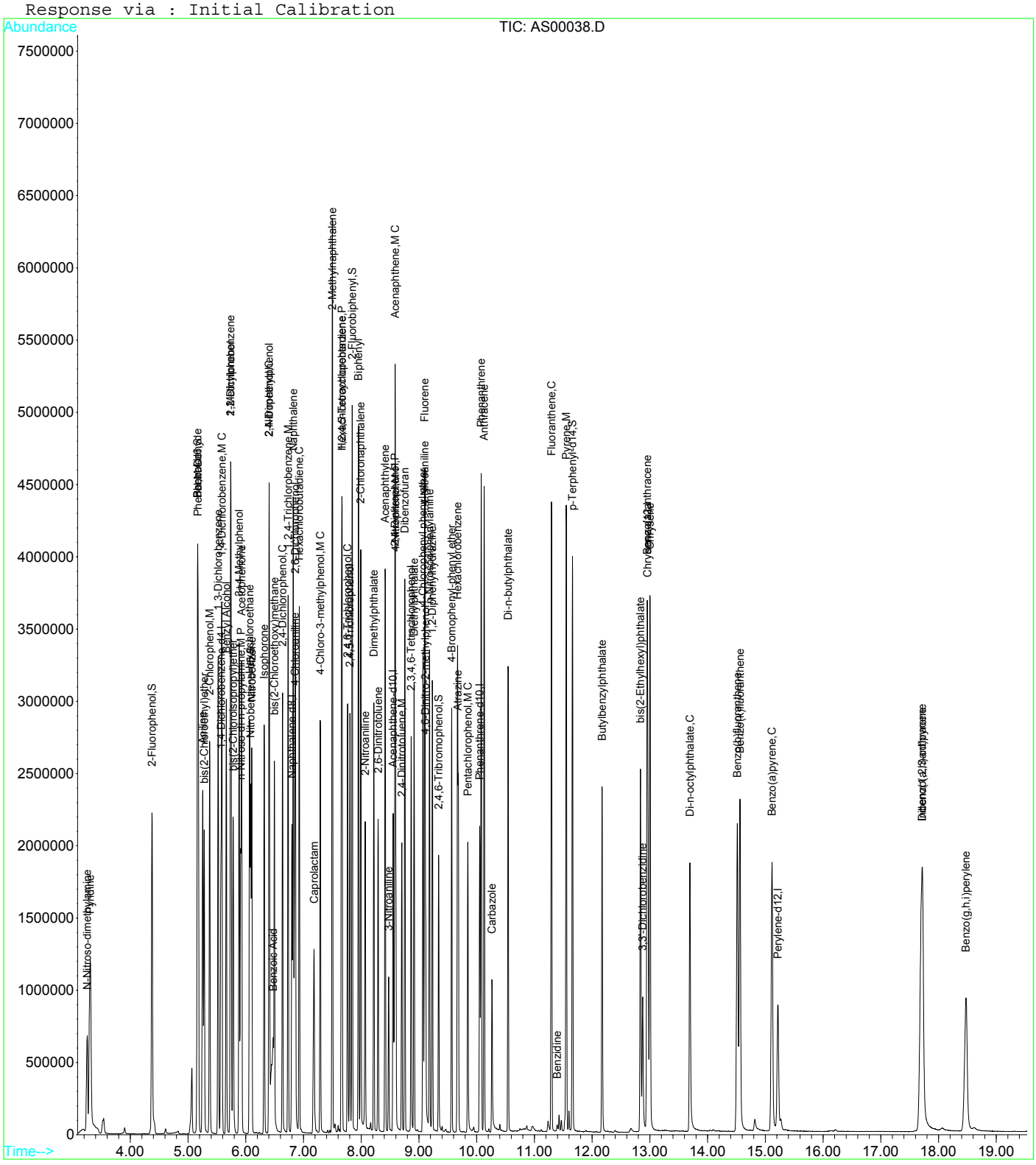
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.95	154	1519314	71.89	ug/kg	99
45)	2-Chloronaphthalene	7.99	162	1231063	73.15	ug/kg	100
46)	2-Nitroaniline	8.07	138	424472	87.96	ug/kg	97
47)	Dimethylphthalate	8.22	163	1221329	73.30	ug/kg	100
48)	Acenaphthylene	8.41	152	1734104	73.25	ug/kg	99
49)	2,6-Dinitrotoluene	8.29	165	296156	89.42	ug/kg	97
50)	3-Nitroaniline	8.48	138	187023m	70.39	ug/kg	
51)	Acenaphthene	8.59	153	1227657	71.57	ug/kg	98
52)	2,4-Dinitrophenol	8.57	184	97079	157.68	ug/kg	53
53)	Dibenzofuran	8.76	168	1624921	70.79	ug/kg	99
54)	4-Nitrophenol	8.60	65	206251m	93.81	ug/kg	
55)	2,4-Dinitrotoluene	8.70	165	382040	96.51	ug/kg	98
56)	2,3,4,6-Tetrachlorophenol	8.87	232	356442	93.03	ug/kg	98
57)	Fluorene	9.10	166	1332607	72.57	ug/kg	99
58)	Diethylphthalate	8.92	149	1127009	74.28	ug/kg	99
59)	4-Chlorophenyl phenyl ethe	9.07	204	660616	74.74	ug/kg	100
60)	4-Nitroaniline	9.09	138	175110m	74.72	ug/kg	
62)	4,6-Dinitro-2-methylphenol	9.12	198	194815	130.65	ug/kg	97
63)	n-Nitrosodiphenylamine	9.18	169	862033	73.38	ug/kg	99
64)	1,2-Diphenylhydrazine	9.23	77	1097887	71.18	ug/kg	99
66)	4-Bromophenyl-phenyl ether	9.57	248	402731	76.31	ug/kg	99
67)	Hexachlorobenzene	9.67	284	430234	75.76	ug/kg	99
68)	Atrazine	9.68	200	280991	72.51	ug/kg	98
69)	Pentachlorophenol	9.85	266	254784	102.81	ug/kg	99
70)	Phenanthrene	10.08	178	1748354	70.87	ug/kg	99
71)	Anthracene	10.13	178	1773498	71.94	ug/kg	98
72)	Carbazole	10.27	167	867978m	63.73	ug/kg	
73)	Di-n-butylphthalate	10.54	149	1627702	75.33	ug/kg	99
74)	Fluoranthene	11.30	202	1919711	72.97	ug/kg	99
76)	Benzidine	11.39	184	26910m	20.90	ug/kg	
77)	Pyrene	11.55	202	1994349	72.85	ug/kg	99
79)	Butylbenzylphthalate	12.17	149	659552	85.81	ug/kg	99
80)	Benzo(a)anthracene	12.95	228	1687704	75.87	ug/kg	100
81)	3,3'-Dichlorobenzidine	12.88	252	285145m	65.91	ug/kg	
82)	Chrysene	13.00	228	1677106	75.55	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.84	149	829239	89.02	ug/kg	99
85)	Di-n-octylphthalate	13.69	149	1283165	96.09	ug/kg	99
86)	Benzo(b)fluoranthene	14.52	252	1482995	81.99	ug/kg	99
87)	Benzo(k)fluoranthene	14.56	252	1543298	78.98	ug/kg	99
88)	Benzo(a)pyrene	15.12	252	1392411	80.64	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	17.71	276	1480424	85.86	ug/kg	100
90)	Dibenzo(a,h)anthracene	17.72	278	1205185	87.98	ug/kg	98
91)	Benzo(g,h,i)perylene	18.47	276	1194043	82.52	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170426\AS00038.D Vial: 9
Acq On : 26 Apr 2017 21:57 Operator: GCH
Sample : SEQ-CAL@X80 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 14:47 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 09 14:49:19 2017
Response via : Initial Calibration



12 12.8.

CALIBRATION VERIFICATION SUMMARY

SW 846 8270C

CCV ID: S7F2002-CCV1 **Analyzed:** 6/16/17 16:24

Analyte	Response Factor	Expected Result	Result	% Drift	Limit(s)
Acenaphthene	1.347154	50.00	46.30	7	20 (CCC)
Acenaphthylene	1.800165	50.00	44.72	11	30
Anthracene	1.049286	50.00	46.32	7	30
Benzo(a)anthracene	1.114729	50.00	47.24	6	30
Benzo(a)pyrene	1.046648	50.00	47.82	4	20 (CCC)
Benzo(b)fluoranthene	1.176248	50.00	51.39	3	30
Benzo(g,h,i)perylene	0.8512835	50.00	46.57	7	30
Benzo(k)fluoranthene	1.175377	50.00	47.54	5	30
Chrysene	1.075739	50.00	45.65	9	30
Dibenzo(a,h)anthracene	0.8543197	50.00	48.67	3	30
Fluoranthene	1.14395	50.00	47.31	5	20 (CCC)
Fluorene	1.44056	50.00	46.18	8	30
Indeno(1,2,3-cd)pyrene	1.055575	50.00	48.49	3	30
Naphthalene	0.9999277	50.00	44.37	11	30
Phenanthrene	1.027731	50.00	45.24	10	30
Pyrene	1.392704	50.00	47.98	4	30

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00874.D Vial: 3
Acq On : 16 Jun 2017 16:24 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:38 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	276458	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.53	136	940604	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	530055	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	972254	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	835315	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	688237	40.00	ug/kg	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	469769	44.34	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 44.34%			
7) Phenol-d6	4.91	99	540980	43.87	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 43.87%			
22) Nitrobenzene-d5	5.82	82	429917	42.44	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 84.88%			
43) 2-Fluorobiphenyl	7.57	172	991446	40.20	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 80.40%			
65) 2,4,6-Tribromophenol	9.06	330	146327	53.33	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 53.33%			
78) p-Terphenyl-d14	11.35	244	1080688	48.64	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 97.28%			
Target Compounds						Qvalue
2) Pyridine	3.04	79	432331	40.07	ng/uL	86
3) N-Nitroso-dimethylamine	2.99	42	157348	38.37	ng/uL	95
5) Benzaldehyde	4.90	77	259822	53.41	ug/kg	90
6) Aniline	4.99	93	560252	46.13	ug/kg	97
8) Phenol	4.92	94	500410	43.42	ug/kg	94
9) bis(2-Chloroethyl)ether	5.02	93	384679	42.29	ug/kg	95
10) 2-Chlorophenol	5.11	128	454523	46.77	ug/kg	96
11) 1,3-Dichlorobenzene	5.25	146	498534	46.45	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	526414m	47.17	ug/kg	
13) Benzyl Alcohol	5.40	108	265194	45.68	ug/kg	98
14) 1,2-Dichlorobenzene	5.47	146	486103	47.34	ug/kg	99
15) 2-Methylphenol	5.49	108	377855	45.76	ug/kg	99
16) bis(2-Chloroisopropyl)ethe	5.52	45	464823	36.97	ug/kg	95
17) Acetophenone	5.66	105	531895	44.87	ug/kg	90
18) 3+4-Methylphenol	5.63	108	383326	45.53	ug/kg	100
19) n-Nitroso-di-n-propylamine	5.65	70	205464	40.94	ug/kg	91
20) Hexachloroethane	5.79	117	187942	47.72	ug/kg	97
23) Nitrobenzene	5.84	77	404901	43.51	ug/kg	95
24) Isophorone	6.05	82	647885	43.68	ug/kg	98
25) 2-Nitrophenol	6.14	139	244251	55.67	ug/kg	96
26) 2,4-Dimethylphenol	6.14	107	364411	44.99	ug/kg	99
27) bis(2-Chloroethoxy)methane	6.23	93	409471	43.53	ug/kg	96
28) 2,4-Dichlorophenol	6.37	162	354398	49.70	ug/kg	99
29) Benzoic Acid	6.21	105	106779m	39.42	ug/kg	
30) 1,2,4-Trichlorobenzene	6.46	180	441553	47.91	ug/kg	99
31) Naphthalene	6.55	128	1175670	44.37	ug/kg	99
32) 2,6-Dichlorophenol	6.59	162	354211	48.58	ug/kg	100
33) 4-Chloroaniline	6.58	127	434856	47.64	ug/kg	97
34) Hexachlorobutadiene	6.66	225	265372	49.27	ug/kg	99
35) Caprolactam	6.91	113	111300	49.02	ug/kg	90
36) 4-Chloro-3-methylphenol	7.03	107	313849	48.22	ug/kg	97
37) 2-Methylnaphthalene	7.22	142	1192376	71.21	ug/kg	99
39) Hexachlorocyclopentadiene	7.38	237	258693	43.94	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	458057	40.22	ug/kg	100
41) 2,4,6-Trichlorophenol	7.49	196	256959	43.29	ug/kg	98
42) 2,4,5-Trichlorophenol	7.53	196	279471	43.37	ug/kg	99

(#) = qualifier out of range (m) = manual integration
AS00874.D 0426ABNS.M Tue Jun 20 11:13:33 2017 SS Page 1

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170616\AS00874.D Vial: 3
Acq On : 16 Jun 2017 16:24 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:38 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

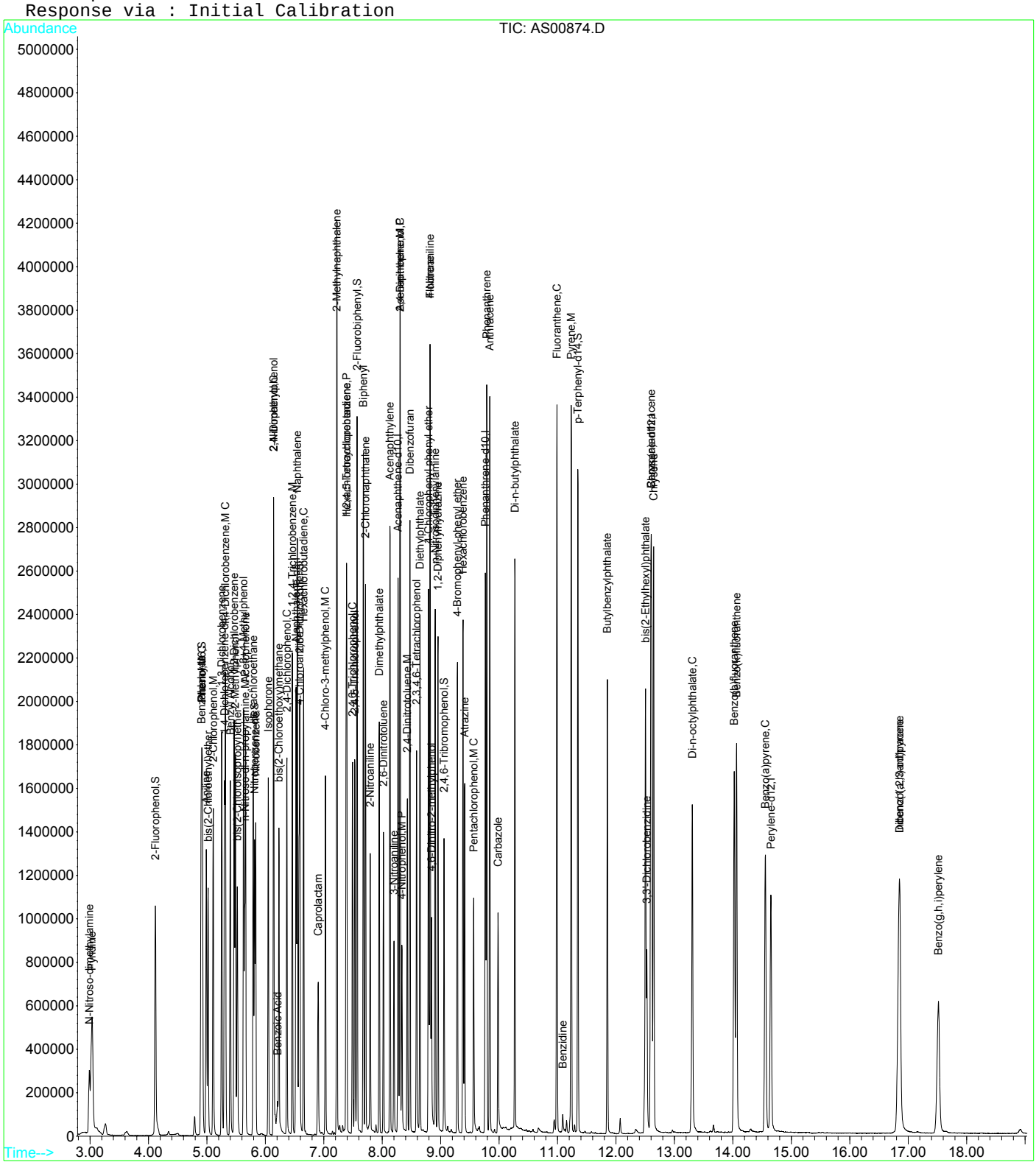
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.68	154	933874	39.18	ug/kg	97
45)	2-Chloronaphthalene	7.71	162	747847	39.41	ug/kg	100
46)	2-Nitroaniline	7.79	138	248667	45.65	ug/kg	93
47)	Dimethylphthalate	7.95	163	762798	40.61	ug/kg	98
48)	Acenaphthylene	8.13	152	1192733	44.72	ug/kg	100
49)	2,6-Dinitrotoluene	8.02	165	194301	52.43	ug/kg	96
50)	3-Nitroaniline	8.20	138	142641	48.23	ug/kg	100
51)	Acenaphthene	8.30	153	892582	46.30	ug/kg	99
52)	2,4-Dinitrophenol	8.30	184	56217	56.00	ug/kg	28
53)	Dibenzofuran	8.47	168	1182752	45.79	ug/kg	100
54)	4-Nitrophenol	8.34	65	119723	46.61	ug/kg	90
55)	2,4-Dinitrotoluene	8.43	165	272299	51.33	ug/kg	99
56)	2,3,4,6-Tetrachlorophenol	8.59	232	225881	51.25	ug/kg	99
57)	Fluorene	8.82	166	954470	46.18	ug/kg	99
58)	Diethylphthalate	8.65	149	836821	49.06	ug/kg	100
59)	4-Chlorophenyl phenyl ethe	8.79	204	467711	47.02	ug/kg	98
60)	4-Nitroaniline	8.82	138	137942	58.48	ug/kg	90
62)	4,6-Dinitro-2-methylphenol	8.84	198	137126	58.71	ug/kg	98
63)	n-Nitrosodiphenylamine	8.91	169	598032	45.52	ug/kg	100
64)	1,2-Diphenylhydrazine	8.95	77	796591	46.22	ug/kg	99
66)	4-Bromophenyl-phenyl ether	9.29	248	280825	47.64	ug/kg	97
67)	Hexachlorobenzene	9.38	284	303709	47.86	ug/kg	99
68)	Atrazine	9.41	200	181215	41.68	ug/kg	95
69)	Pentachlorophenol	9.56	266	142004m	40.49	ug/kg	
70)	Phenanthrene	9.79	178	1249019	45.24	ug/kg	100
71)	Anthracene	9.84	178	1275216	46.31	ug/kg	99
72)	Carbazole	9.98	167	463761	38.05	ug/kg#	92
73)	Di-n-butylphthalate	10.27	149	1248011	51.72	ug/kg	100
74)	Fluoranthene	10.99	202	1390262	47.31	ug/kg	99
76)	Benzidine	11.09	184	41906	53.58	ug/kg	99
77)	Pyrene	11.23	202	1454183	47.98	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	505866	59.33	ug/kg	98
80)	Benzo(a)anthracene	12.60	228	1163937	47.24	ug/kg	100
81)	3,3'-Dichlorobenzidine	12.53	252	206051	43.90	ug/kg	99
82)	Chrysene	12.64	228	1123226	45.65	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.51	149	637576	58.05	ug/kg	100
85)	Di-n-octylphthalate	13.31	149	946505	58.68	ug/kg	99
86)	Benzo(b)fluoranthene	14.02	252	1011922	51.39	ug/kg	98
87)	Benzo(k)fluoranthene	14.06	252	1011172m	47.54	ug/kg	
88)	Benzo(a)pyrene	14.56	252	900427	47.82	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.84	276	908107	48.49	ug/kg	100
90)	Dibenzo(a,h)anthracene	16.86	278	734968	48.66	ug/kg	99
91)	Benzo(g,h,i)perylene	17.52	276	732356	46.57	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170616\AS00874.D Vial: 3
Acq On : 16 Jun 2017 16:24 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 10:38 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



AS00874.D 0426ABNS.M Tue Jun 20 11:13:33 2017 SS Page 3

CALIBRATION VERIFICATION SUMMARY

SW 846 8270C

CCV ID: S7F2006-CCV1 **Analyzed:** 6/19/17 18:44

Analyte	Response Factor	Expected Result	Result	% Drift	Limit(s)
Acenaphthene	1.323471	50.00	45.48	9	20 (CCC)
Acenaphthylene	1.839199	50.00	45.69	9	30
Anthracene	1.055297	50.00	46.58	7	30
Benzo(a)anthracene	1.099007	50.00	46.57	7	30
Benzo(a)pyrene	1.047187	50.00	47.84	4	20 (CCC)
Benzo(b)fluoranthene	1.157835	50.00	50.58	1	30
Benzo(g,h,i)perylene	0.9158083	50.00	50.10	0	30
Benzo(k)fluoranthene	1.193977	50.00	48.29	3	30
Chrysene	1.055062	50.00	44.77	10	30
Dibenzo(a,h)anthracene	0.9198492	50.00	52.40	5	30
Fluoranthene	1.167261	50.00	48.28	3	20 (CCC)
Fluorene	1.446524	50.00	46.37	7	30
Indeno(1,2,3-cd)pyrene	1.140098	50.00	52.38	5	30
Naphthalene	0.9970222	50.00	44.24	12	30
Phenanthrene	1.030692	50.00	45.37	9	30
Pyrene	1.29113	50.00	44.49	11	30

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00900.D Vial: 3
Acq On : 19 Jun 2017 18:44 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:25 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	261479	40.00	ug/kg	-0.04
21) Naphthalene-d8	6.53	136	907524	40.00	ug/kg	-0.04
38) Acenaphthene-d10	8.27	164	434367	40.00	ug/kg	-0.04
61) Phenanthrene-d10	9.76	188	814306	40.00	ug/kg	-0.04
75) Chrysene-d12	12.61	240	763869	40.00	ug/kg	-0.05
84) Perylene-d12	14.65	264	647981	40.00	ug/kg	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	446675	44.57	ug/kg	-0.08
Spiked Amount 100.000	Range 30 - 130		Recovery = 44.57%			
7) Phenol-d6	4.91	99	520004	44.58	ug/kg	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 44.58%			
22) Nitrobenzene-d5	5.82	82	443764	45.40	ug/kg	-0.06
Spiked Amount 50.000	Range 30 - 130		Recovery = 90.80%			
43) 2-Fluorobiphenyl	7.57	172	931030	46.07	ug/kg	-0.05
Spiked Amount 50.000	Range 30 - 130		Recovery = 92.14%			
65) 2,4,6-Tribromophenol	9.06	330	126330	54.97	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 54.97%			
78) p-Terphenyl-d14	11.35	244	955417	47.02	ug/kg	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 94.04%			
Target Compounds						Qvalue
2) Pyridine	3.04	79	408089	39.99	ng/uL	86
3) N-Nitroso-dimethylamine	2.99	42	150087	38.69	ng/uL	95
5) Benzaldehyde	4.90	77	249276	54.18	ug/kg	89
6) Aniline	4.99	93	514811	44.81	ug/kg	99
8) Phenol	4.92	94	484805	44.47	ug/kg	93
9) bis(2-Chloroethyl)ether	5.02	93	384753	44.72	ug/kg	93
10) 2-Chlorophenol	5.11	128	437078	47.55	ug/kg	95
11) 1,3-Dichlorobenzene	5.25	146	476915	46.98	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	503815m	47.73	ug/kg	
13) Benzyl Alcohol	5.40	108	255518	46.54	ug/kg	98
14) 1,2-Dichlorobenzene	5.47	146	468545	48.24	ug/kg	99
15) 2-Methylphenol	5.49	108	363266	46.51	ug/kg	98
16) bis(2-Chloroisopropyl)ethe	5.52	45	453078	38.10	ug/kg	97
17) Acetophenone	5.66	105	509696	45.46	ug/kg	90
18) 3+4-Methylphenol	5.63	108	367021	46.09	ug/kg	99
19) n-Nitroso-di-n-propylamine	5.65	70	197287	41.56	ug/kg	91
20) Hexachloroethane	5.79	117	180841	48.55	ug/kg	98
23) Nitrobenzene	5.84	77	384515	42.83	ug/kg	94
24) Isophorone	6.05	82	621208	43.40	ug/kg	98
25) 2-Nitrophenol	6.14	139	243031	57.42	ug/kg	94
26) 2,4-Dimethylphenol	6.14	107	347249	44.43	ug/kg	98
27) bis(2-Chloroethoxy)methane	6.23	93	395126	43.54	ug/kg	96
28) 2,4-Dichlorophenol	6.37	162	338794	49.25	ug/kg	99
29) Benzoic Acid	6.20	105	92185m	36.33	ug/kg	
30) 1,2,4-Trichlorobenzene	6.46	180	418787	47.09	ug/kg	99
31) Naphthalene	6.55	128	1131027	44.24	ug/kg	99
32) 2,6-Dichlorophenol	6.59	162	338800	48.16	ug/kg	99
33) 4-Chloroaniline	6.58	127	389516	44.23	ug/kg	97
34) Hexachlorobutadiene	6.66	225	251003	48.30	ug/kg	99
35) Caprolactam	6.90	113	107335	48.99	ug/kg	89
36) 4-Chloro-3-methylphenol	7.03	107	299869	47.76	ug/kg	95
37) 2-Methylnaphthalene	7.22	142	1132835	70.12	ug/kg	99
39) Hexachlorocyclopentadiene	7.38	237	239689	49.68	ug/kg	100
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	431370	46.23	ug/kg	99
41) 2,4,6-Trichlorophenol	7.49	196	242685	49.90	ug/kg	99
42) 2,4,5-Trichlorophenol	7.53	196	260837	49.39	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170619\AS00900.D Vial: 3
Acq On : 19 Jun 2017 18:44 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:25 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

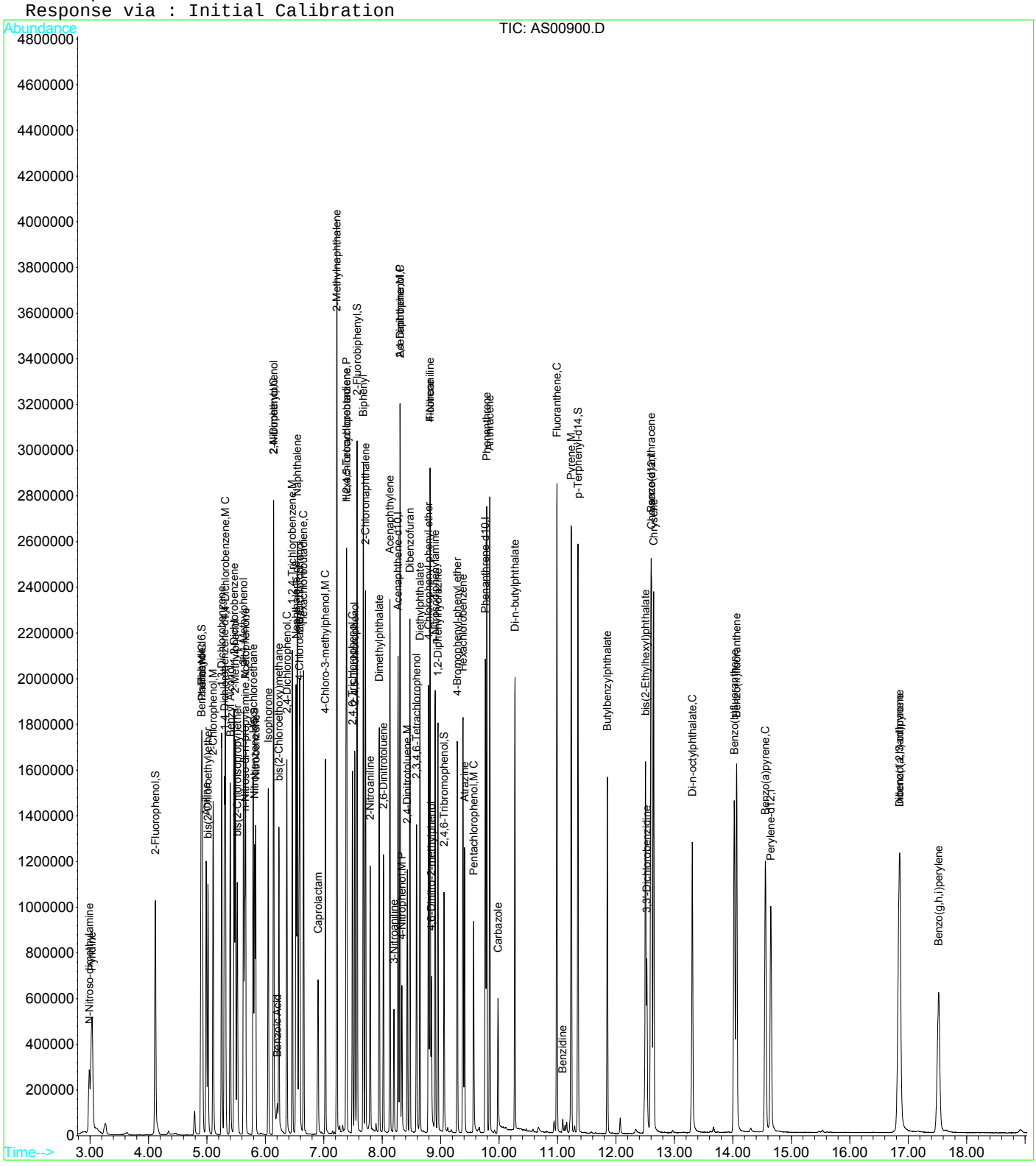
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.68	154	892421	45.68	ug/kg	97
45)	2-Chloronaphthalene	7.71	162	704488	45.30	ug/kg	100
46)	2-Nitroaniline	7.80	138	236133	52.89	ug/kg	93
47)	Dimethylphthalate	7.95	163	718284	46.67	ug/kg	97
48)	Acenaphthylene	8.13	152	998609	45.69	ug/kg	99
49)	2,6-Dinitrotoluene	8.02	165	171217	56.38	ug/kg	91
50)	3-Nitroaniline	8.20	138	94059	38.81	ug/kg	92
51)	Acenaphthene	8.30	153	718590	45.48	ug/kg	100
52)	2,4-Dinitrophenol	8.30	184	37183	49.93	ug/kg	31
53)	Dibenzofuran	8.47	168	971028	45.87	ug/kg	99
54)	4-Nitrophenol	8.34	65	89792	42.65	ug/kg	89
55)	2,4-Dinitrotoluene	8.43	165	219668	50.54	ug/kg	92
56)	2,3,4,6-Tetrachlorophenol	8.59	232	189807	52.55	ug/kg	96
57)	Fluorene	8.82	166	785403	46.37	ug/kg	99
58)	Diethylphthalate	8.65	149	680414	48.68	ug/kg	100
59)	4-Chlorophenyl phenyl ethe	8.79	204	393533	48.28	ug/kg	99
60)	4-Nitroaniline	8.82	138	73792	38.18	ug/kg#	81
62)	4,6-Dinitro-2-methylphenol	8.84	198	105526	55.55	ug/kg	95
63)	n-Nitrosodiphenylamine	8.91	169	500389	45.48	ug/kg	99
64)	1,2-Diphenylhydrazine	8.95	77	596632	41.33	ug/kg	95
66)	4-Bromophenyl-phenyl ether	9.29	248	243179	49.26	ug/kg	98
67)	Hexachlorobenzene	9.38	284	265412	49.94	ug/kg	100
68)	Atrazine	9.41	200	146282	40.17	ug/kg	93
69)	Pentachlorophenol	9.56	266	120897m	41.16	ug/kg	
70)	Phenanthrene	9.79	178	1049123	45.37	ug/kg	99
71)	Anthracene	9.84	178	1074168	46.58	ug/kg	100
72)	Carbazole	9.98	167	586246m	57.43	ug/kg	
73)	Di-n-butylphthalate	10.27	149	1022519	50.60	ug/kg	98
74)	Fluoranthene	10.99	202	1188135	48.28	ug/kg	99
76)	Benzidine	11.09	184	29352	41.04	ug/kg	98
77)	Pyrene	11.23	202	1232818	44.49	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	415501	53.29	ug/kg	95
80)	Benzo(a)anthracene	12.60	228	1049372	46.57	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	200201	46.64	ug/kg	99
82)	Chrysene	12.64	228	1007411	44.77	ug/kg	99
83)	bis(2-Ethylhexyl)phthalate	12.51	149	544995	54.26	ug/kg	99
85)	Di-n-octylphthalate	13.31	149	827895	54.52	ug/kg	99
86)	Benzo(b)fluoranthene	14.02	252	937819	50.58	ug/kg	98
87)	Benzo(k)fluoranthene	14.07	252	967093m	48.29	ug/kg	
88)	Benzo(a)pyrene	14.56	252	848197	47.84	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.85	276	923452	52.38	ug/kg	92
90)	Dibenzo(a,h)anthracene	16.86	278	745056	52.40	ug/kg	99
91)	Benzo(g,h,i)perylene	17.52	276	741783	50.10	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170619\AS00900.D Vial: 3
Acq On : 19 Jun 2017 18:44 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 11:25 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Fri Jun 16 15:53:20 2017
Response via : Initial Calibration



CALIBRATION VERIFICATION SUMMARY

SW 846 8270C

CCV ID: S7F2119-CCV1 **Analyzed:** 6/20/17 18:43

Analyte	Response Factor	Expected Result	Result	% Drift	Limit(s)
Acenaphthene	1.332915	50.00	45.81	8	20 (CCC)
Acenaphthylene	1.855392	50.00	46.10	8	30
Anthracene	1.047868	50.00	46.25	7	30
Benzo(a)anthracene	1.103063	50.00	46.74	7	30
Benzo(a)pyrene	1.045908	50.00	47.78	4	20 (CCC)
Benzo(b)fluoranthene	1.114612	50.00	48.70	3	30
Benzo(g,h,i)perylene	0.9860854	50.00	53.94	8	30
Benzo(k)fluoranthene	1.169453	50.00	47.30	5	30
Chrysene	1.062009	50.00	45.07	10	30
Dibenzo(a,h)anthracene	0.9873237	50.00	56.24	12	30
Fluoranthene	1.166671	50.00	48.25	3	20 (CCC)
Fluorene	1.450883	50.00	46.51	7	30
Indeno(1,2,3-cd)pyrene	1.227202	50.00	56.38	13	30
Naphthalene	0.9893304	50.00	43.90	12	30
Phenanthrene	1.010594	50.00	44.49	11	30
Pyrene	1.235138	50.00	42.56	15	30

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00921.D Vial: 3
Acq On : 20 Jun 2017 18:43 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:31 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:31:09 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.30	152	300774	40.00	ug/kg	0.00
21) Naphthalene-d8	6.52	136	1021655	40.00	ug/kg	0.00
38) Acenaphthene-d10	8.27	164	496905	40.00	ug/kg	0.00
61) Phenanthrene-d10	9.77	188	956333	40.00	ug/kg	0.00
75) Chrysene-d12	12.61	240	925669	40.00	ug/kg	0.00
84) Perylene-d12	14.65	264	847611	40.00	ug/kg	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	4.12	112	519148	45.04	ug/kg	-0.05
Spiked Amount 100.000	Range 30 - 130		Recovery = 45.04%			
7) Phenol-d6	4.91	99	596583	44.47	ug/kg	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 44.47%			
22) Nitrobenzene-d5	5.82	82	471145	42.82	ug/kg	-0.02
Spiked Amount 50.000	Range 30 - 130		Recovery = 85.64%			
43) 2-Fluorobiphenyl	7.57	172	1063707	46.01	ug/kg	-0.01
Spiked Amount 50.000	Range 30 - 130		Recovery = 92.02%			
65) 2,4,6-Tribromophenol	9.06	330	154440	57.22	ug/kg	-0.02
Spiked Amount 100.000	Range 30 - 130		Recovery = 57.22%			
78) p-Terphenyl-d14	11.35	244	1123817	45.64	ug/kg	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 91.28%			
Target Compounds						Qvalue
2) Pyridine	3.04	79	481591	41.03	ng/uL	100
3) N-Nitroso-dimethylamine	2.99	42	167563	37.55	ng/uL	97
5) Benzaldehyde	4.90	77	282224	53.32	ug/kg	88
6) Aniline	4.99	93	595192	45.04	ug/kg	98
8) Phenol	4.92	94	549883	43.85	ug/kg	96
9) bis(2-Chloroethyl)ether	5.02	93	435224	43.98	ug/kg	93
10) 2-Chlorophenol	5.11	128	504344	47.70	ug/kg	96
11) 1,3-Dichlorobenzene	5.25	146	544942	46.67	ug/kg	98
12) 1,4-Dichlorobenzene	5.32	146	574967m	47.35	ug/kg	
13) Benzyl Alcohol	5.40	108	295489	46.78	ug/kg	98
14) 1,2-Dichlorobenzene	5.47	146	530850	47.51	ug/kg	99
15) 2-Methylphenol	5.49	108	421852	46.95	ug/kg	98
16) bis(2-Chloroisopropyl)ethe	5.52	45	514914	37.64	ug/kg	95
17) Acetophenone	5.66	105	589108	45.68	ug/kg	90
18) 3+4-Methylphenol	5.63	108	423494	46.24	ug/kg	98
19) n-Nitroso-di-n-propylamine	5.65	70	234018	42.86	ug/kg	89
20) Hexachloroethane	5.79	117	206973	48.30	ug/kg	97
23) Nitrobenzene	5.84	77	444129	43.94	ug/kg	94
24) Isophorone	6.05	82	715177	44.39	ug/kg	97
25) 2-Nitrophenol	6.14	139	251275	52.73	ug/kg	99
26) 2,4-Dimethylphenol	6.14	107	398942	45.34	ug/kg	99
27) bis(2-Chloroethoxy)methane	6.23	93	447919	43.84	ug/kg	96
28) 2,4-Dichlorophenol	6.37	162	393297	50.78	ug/kg	98
29) Benzoic Acid	6.22	105	135216	44.04	ug/kg	93
30) 1,2,4-Trichlorobenzene	6.46	180	475091	47.46	ug/kg	99
31) Naphthalene	6.55	128	1263443	43.90	ug/kg	99
32) 2,6-Dichlorophenol	6.59	162	393943	49.74	ug/kg	99
33) 4-Chloroaniline	6.58	127	454707	45.87	ug/kg	98
34) Hexachlorobutadiene	6.66	225	286810	49.03	ug/kg	99
35) Caprolactam	6.91	113	123192	49.95	ug/kg	89
36) 4-Chloro-3-methylphenol	7.03	107	352183	49.82	ug/kg	94
37) 2-Methylnaphthalene	7.22	142	1282391	70.51	ug/kg	99
39) Hexachlorocyclopentadiene	7.38	237	286299	51.87	ug/kg	99
40) 1,2,4,5-Tetrachlorobenzene	7.39	216	493855	46.26	ug/kg	100
41) 2,4,6-Trichlorophenol	7.49	196	283619	50.97	ug/kg	99
42) 2,4,5-Trichlorophenol	7.53	196	311651	51.59	ug/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\A\DATA\20170620\AS00921.D Vial: 3
Acq On : 20 Jun 2017 18:43 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:31 2017 Quant Results File: 0426ABNS.RES

Quant Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:31:09 2017
Response via : Initial Calibration
DataAcq Meth : RUN8270A

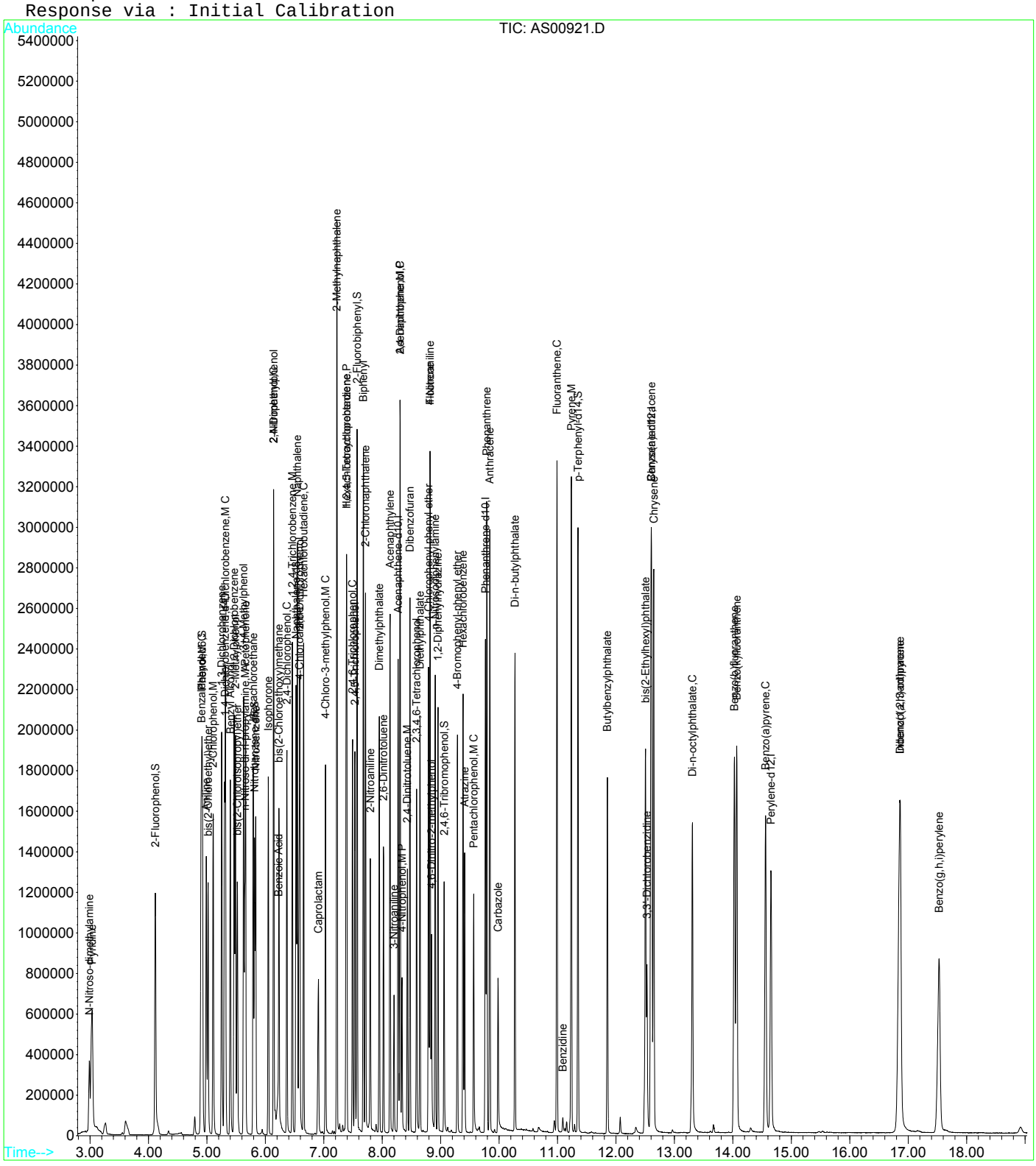
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Biphenyl	7.68	154	1017032	45.51	ug/kg	97
45)	2-Chloronaphthalene	7.71	162	815433	45.84	ug/kg	100
46)	2-Nitroaniline	7.80	138	275895	54.02	ug/kg	92
47)	Dimethylphthalate	7.95	163	832401	47.27	ug/kg	97
48)	Acenaphthylene	8.13	152	1152442	46.10	ug/kg	100
49)	2,6-Dinitrotoluene	8.02	165	199502	57.42	ug/kg	92
50)	3-Nitroaniline	8.20	138	115882	41.79	ug/kg	91
51)	Acenaphthene	8.31	153	827915	45.81	ug/kg	99
52)	2,4-Dinitrophenol	8.30	184	67789	64.01	ug/kg	7
53)	Dibenzofuran	8.47	168	1114582	46.03	ug/kg	99
54)	4-Nitrophenol	8.34	65	102367	42.51	ug/kg	89
55)	2,4-Dinitrotoluene	8.43	165	261110	52.51	ug/kg	91
56)	2,3,4,6-Tetrachlorophenol	8.59	232	231248	55.96	ug/kg	96
57)	Fluorene	8.82	166	901189	46.51	ug/kg	99
58)	Diethylphthalate	8.65	149	785155	49.10	ug/kg	100
59)	4-Chlorophenyl phenyl ethe	8.79	204	448603	48.10	ug/kg	100
60)	4-Nitroaniline	8.82	138	128266	58.01	ug/kg	91
62)	4,6-Dinitro-2-methylphenol	8.84	198	149032	62.62	ug/kg	95
63)	n-Nitrosodiphenylamine	8.91	169	575996	44.58	ug/kg	98
64)	1,2-Diphenylhydrazine	8.95	77	678092	40.00	ug/kg	95
66)	4-Bromophenyl-phenyl ether	9.29	248	284027	48.99	ug/kg	98
67)	Hexachlorobenzene	9.38	284	310426	49.73	ug/kg	100
68)	Atrazine	9.41	200	170577	39.89	ug/kg	92
69)	Pentachlorophenol	9.56	266	145459	42.17	ug/kg	99
70)	Phenanthrene	9.79	178	1208081	44.49	ug/kg	100
71)	Anthracene	9.84	178	1252638	46.25	ug/kg	99
72)	Carbazole	9.98	167	636879m	53.12	ug/kg	
73)	Di-n-butylphthalate	10.27	149	1175759	49.54	ug/kg	98
74)	Fluoranthene	10.99	202	1394658	48.25	ug/kg	99
76)	Benzidine	11.09	184	36701	42.35	ug/kg	97
77)	Pyrene	11.24	202	1429161	42.56	ug/kg	99
79)	Butylbenzylphthalate	11.85	149	487758	51.62	ug/kg	96
80)	Benzo(a)anthracene	12.60	228	1276339	46.74	ug/kg	99
81)	3,3'-Dichlorobenzidine	12.53	252	239832	46.11	ug/kg	99
82)	Chrysene	12.65	228	1228836	45.07	ug/kg	100
83)	bis(2-Ethylhexyl)phthalate	12.51	149	635857	52.24	ug/kg	99
85)	Di-n-octylphthalate	13.31	149	1009408	50.81	ug/kg	99
86)	Benzo(b)fluoranthene	14.03	252	1180947	48.70	ug/kg	98
87)	Benzo(k)fluoranthene	14.07	252	1239052m	47.30	ug/kg	
88)	Benzo(a)pyrene	14.56	252	1108154	47.78	ug/kg	99
89)	Indeno(1,2,3-cd)pyrene	16.86	276	1300237	56.38	ug/kg	100
90)	Dibenzo(a,h)anthracene	16.86	278	1046083	56.24	ug/kg	99
91)	Benzo(g,h,i)perylene	17.53	276	1044771	53.94	ug/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\A\DATA\20170620\AS00921.D Vial: 3
Acq On : 20 Jun 2017 18:43 Operator: GCH
Sample : SEQ-CCV Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:31 2017 Quant Results File: 0426ABNS.RES

Method : G:\HPCHEM\A\METHODS\0426ABNS.M (RTE Integrator)
Title : BNA Extractables GC/MS 8270C
Last Update : Wed Jun 21 16:31:09 2017
Response via : Initial Calibration



INTERNAL STANDARD REPORT

Analysis Class: SEMIVOLATILES **Analysis Batch:** S7F2002

		DCB-D4		NAP-D8		ACE-D10		PHE-D10		CHR-D12		PER-D12	
Lab Number	File ID	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt
B7F1527-BLK1	AS00875.D	235554	5.3	796559	6.52	377614	8.27	702824	9.76	636988	12.61	535825	14.65
7060508-01	AS00888.D	326577	5.3	1088589	6.52	512578	8.27	917617	9.76	853258	12.61	739212	14.65
7060508-02	AS00889.D	293025	5.3	964379	6.52	456491	8.27	823526	9.76	729677	12.61	602863	14.65
7060508-03	AS00890.D	311712	5.3	1033680	6.52	486853	8.27	872674	9.76	786623	12.61	666995	14.65
7060508-04	AS00891.D	255336	5.3	872524	6.52	416621	8.27	758515	9.76	700085	12.61	579765	14.65
7060508-05	AS00892.D	265162	5.3	895480	6.52	422463	8.27	764766	9.76	699186	12.61	591257	14.65
7060508-06	AS00893.D	270718	5.3	930929	6.52	440105	8.27	817033	9.76	742211	12.61	624194	14.65
7060508-07	AS00894.D	287761	5.3	960129	6.53	455165	8.27	838140	9.76	765819	12.61	638189	14.65
7060508-08	AS00895.D	351830	5.3	1159407	6.52	555727	8.27	1005380	9.76	912556	12.61	771831	14.65

12 12.10.

Reference Std ID					
S7F2002-CCV1					
	Internal Standard	Ref Area	Area Limit	Ref RT	RT Limit
DCB-D4	1,4-Dichlorobenzene-d4	276458	138,229.00 - 552,916.00	5.3	0.50
NAP-D8	Naphthalene-d8	940604	470,302.00 - 1,881,208.00	6.53	0.50
ACE-D10	Acenaphthene-d10	530055	265,027.50 - 1,060,110.00	8.27	0.50
PHE-D10	Phenanthrene-d10	972254	486,127.00 - 1,944,508.00	9.76	0.50
CHR-D12	Chrysene-d12	835315	417,657.50 - 1,670,630.00	12.61	0.50
PER-D12	Perylene-d12	688237	344,118.50 - 1,376,474.00	14.65	0.50

* - Outside of QC Limits

F-VIII

INTERNAL STANDARD REPORT

Analysis Class: SEMIVOLATILES **Analysis Batch:** S7F2006

		DCB-D4		NAP-D8		ACE-D10		PHE-D10		CHR-D12		PER-D12	
Lab Number	File ID	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt
B7F1527-BLK3	AS00901.D	231673	5.3	784726	6.52	373519	8.27	703879	9.76	625390	12.61	530797	14.65
7060508-09	AS00914.D	235054	5.3	780833	6.52	370031	8.27	666430	9.76	604482	12.61	498271	14.65
7060508-10	AS00915.D	244371	5.3	830038	6.52	391562	8.27	725201	9.76	658861	12.61	544822	14.65
7060508-11	AS00916.D	269465	5.3	894839	6.52	427853	8.27	784322	9.76	707463	12.61	586183	14.65
7060508-12	AS00917.D	235373	5.3	789998	6.52	379265	8.27	695686	9.76	637579	12.61	524619	14.65

Reference Std ID
S7F2006-CCV1

	Internal Standard	Ref Area	Area Limit	Ref RT	RT Limit
DCB-D4	1,4-Dichlorobenzene-d4	261479	130,739.50 - 522,958.00	5.3	0.50
NAP-D8	Naphthalene-d8	907524	453,762.00 - 1,815,048.00	6.53	0.50
ACE-D10	Acenaphthene-d10	434367	217,183.50 - 868,734.00	8.27	0.50
PHE-D10	Phenanthrene-d10	814306	407,153.00 - 1,628,612.00	9.76	0.50
CHR-D12	Chrysene-d12	763869	381,934.50 - 1,527,738.00	12.61	0.50
PER-D12	Perylene-d12	647981	323,990.50 - 1,295,962.00	14.65	0.50

* - Outside of QC Limits

VOLATILES

Brown and Caldwell USR

Work Order: 7060508

Project: Patchogue

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client:	**Brown and Caldwell USR**	**Project:**	**Patchogue**
Client Sample ID:	**Blank**	**Work Order:**	**7060508**
Lab Sample ID:	**B7F2163-BLK1**		

Init/Final Vol:	5 mL / 5 mL	Prep Date:	06/20/2017 12:21	File ID:	4V27814.D
		Prep Batch:	B7F2163	Analyzed:	06/20/2017 12:21
		Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27814.D Vial: 55
Acq On : 20 Jun 2017 12:21 Operator: sdp
Sample : B7F2163-BLK1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:23 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	326699	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	408425	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	209450	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	248455	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.58	113	205393	33.03	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 110.10%			
43) Toluene-d8	7.26	98	399370	29.49	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.30%			
62) 4-Bromofluorobenzene	10.63	95	207648	29.59	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.63%			

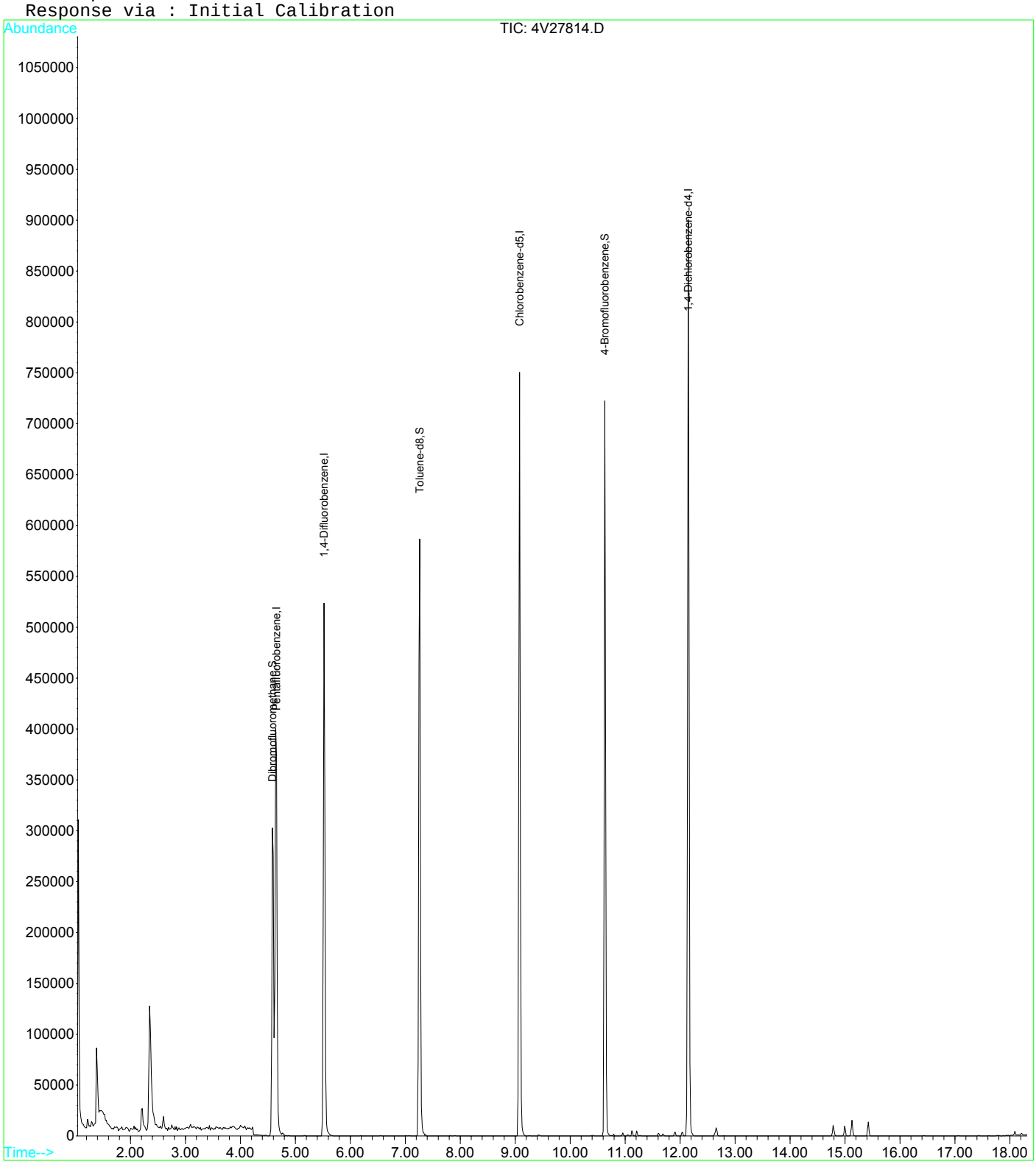
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27814.D 0609VO4.M Wed Jun 21 17:14:00 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27814.D Vial: 55
Acq On : 20 Jun 2017 12:21 Operator: sdp
Sample : B7F2163-BLK1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:23 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27814.D 0609VO4.M Wed Jun 21 17:14:00 2017 SS Page 2

13
13.1.

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client:	**Brown and Caldwell USR**	**Project:**	**Patchogue**
Client Sample ID:	**Blank**	**Work Order:**	**7060508**
Lab Sample ID:	**B7F2331-BLK1**		

Init/Final Vol:	5 mL / 5 mL	Prep Date:	06/22/2017 14:02	File ID:	4V27847.D
		Prep Batch:	B7F2331	Analyzed:	06/22/2017 14:02
		Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27847.D Vial: 5
Acq On : 22 Jun 2017 14:02 Operator: sdp
Sample : B7F2331-BLK1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:38 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.64	168	269354	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	333853	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	179515	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	210914	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	174457	34.03	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 113.43%			
43) Toluene-d8	7.25	98	332610	30.05	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.17%			
62) 4-Bromofluorobenzene	10.63	95	181152	30.12	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.40%			

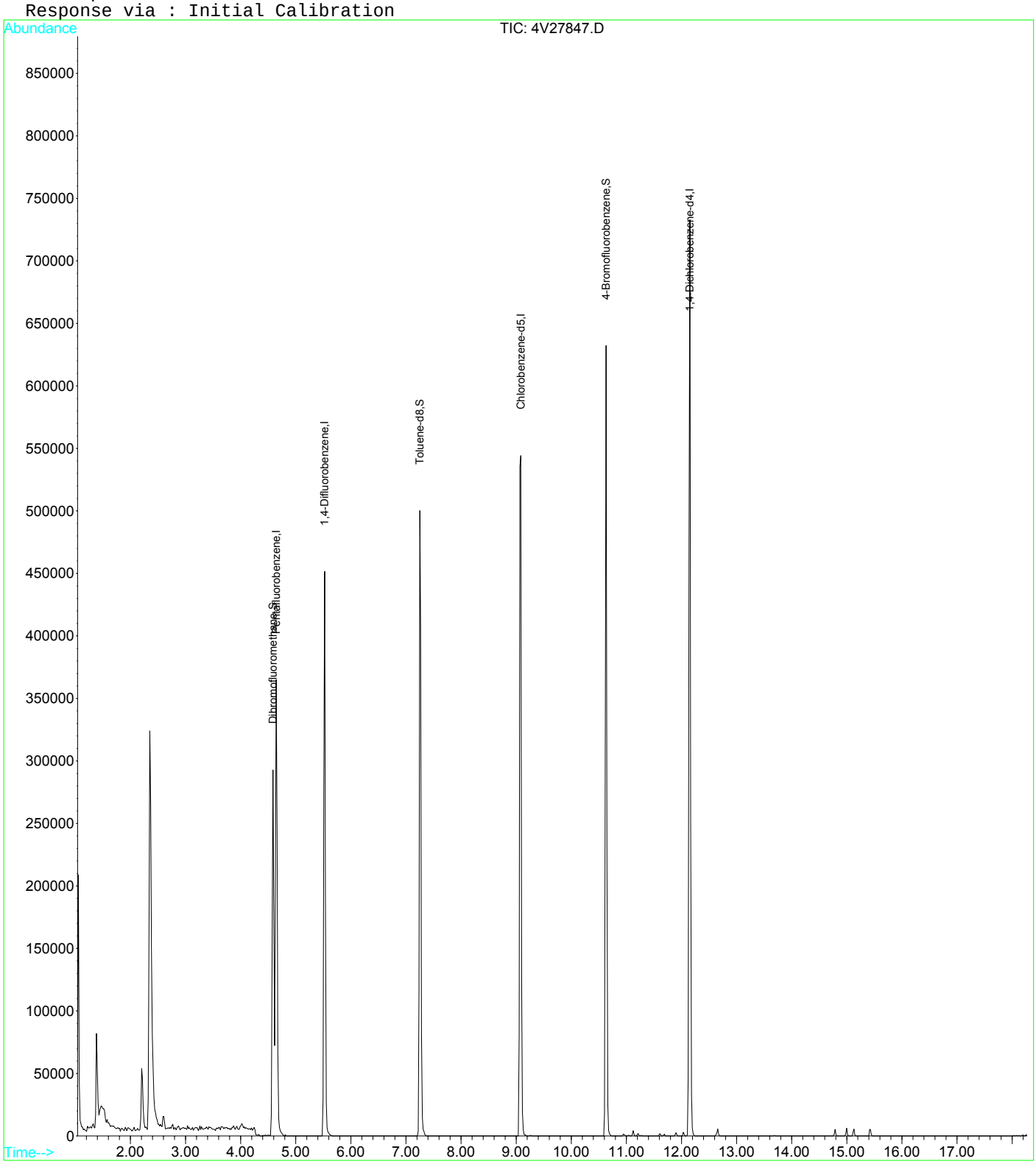
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27847.D 0609VO4.M Fri Jun 23 15:26:40 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27847.D Vial: 5
Acq On : 22 Jun 2017 14:02 Operator: sdp
Sample : B7F2331-BLK1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:38 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-1-20170613**
Lab Sample ID: **7060508-01**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 14:18	Prep Date:	06/20/17 14:27	File ID:	4V27819.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 14:27
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27819.D Vial: 60
Acq On : 20 Jun 2017 14:27 Operator: sdp
Sample : 7060508-01 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:29 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

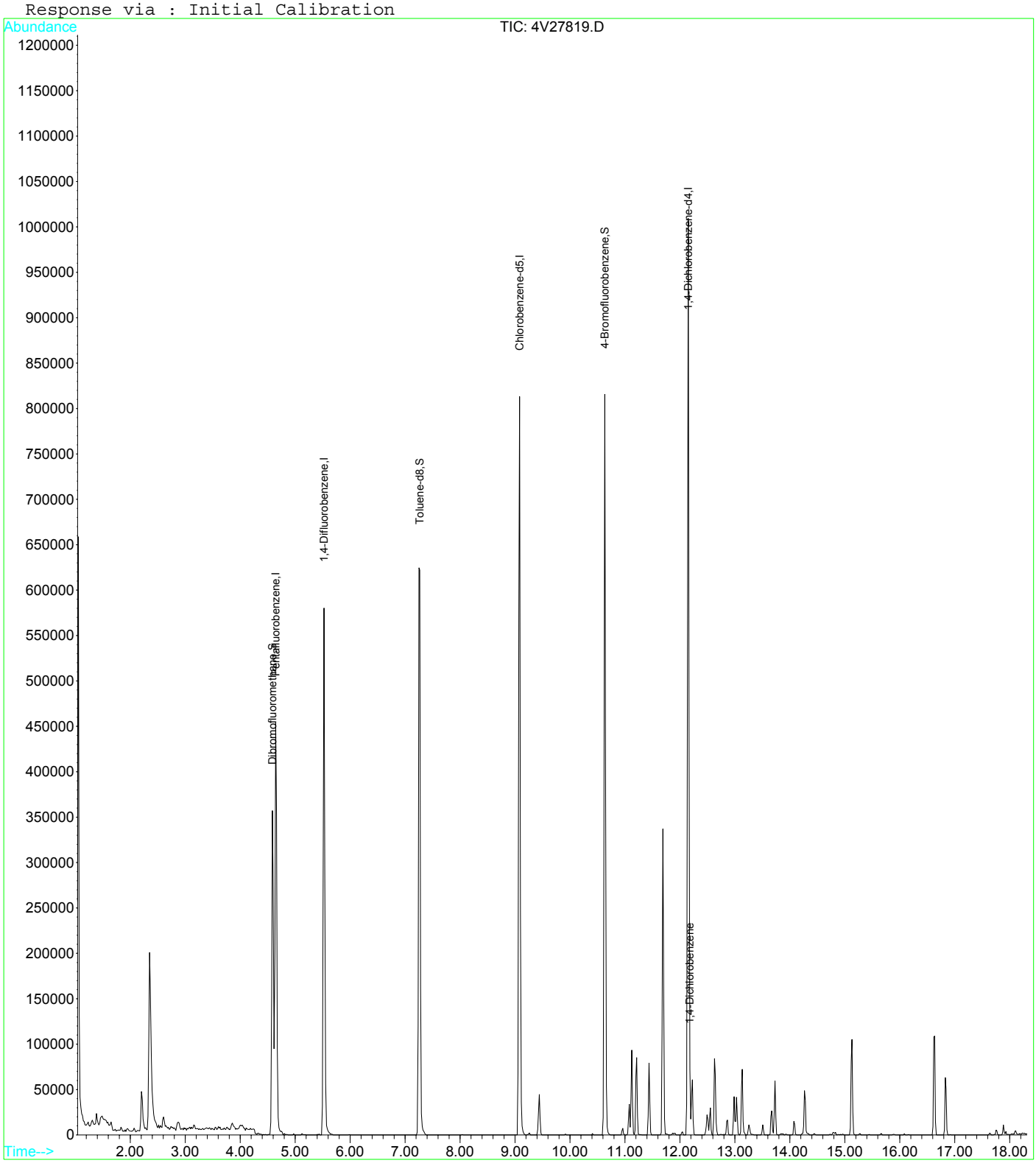
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	354857	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	466983	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	250626	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	285066	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	225206	33.34	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 111.13%			
43) Toluene-d8	7.27	98	478701	30.92	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 103.07%			
62) 4-Bromofluorobenzene	10.63	95	240235	28.61	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 95.37%			
Target Compounds						Qvalue
75) 1,4-Dichlorobenzene	12.18	146	6710	0.54	ug/L	82

(#) = qualifier out of range (m) = manual integration
4V27819.D 0609VO4.M Tue Jul 11 10:32:27 2017 SS Page 1

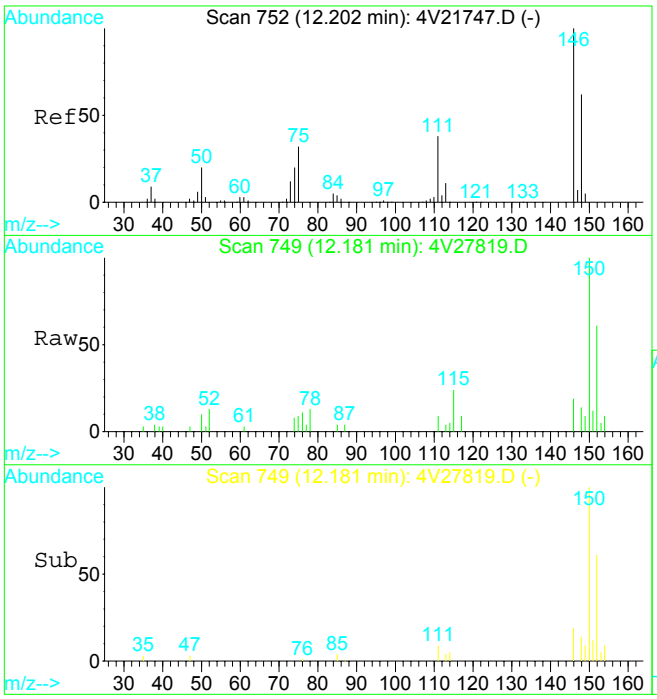
Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27819.D Vial: 60
Acq On : 20 Jun 2017 14:27 Operator: sdp
Sample : 7060508-01 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:29 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



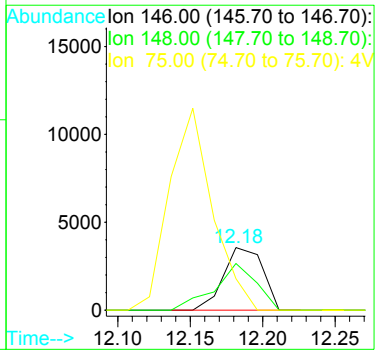
4V27819.D 0609VO4.M Tue Jul 11 10:32:27 2017 SS Page 2



#75
1,4-Dichlorobenzene
Concen: 0.54 ug/L
RT: 12.18 min Scan# 749
Delta R.T. -0.01 min
Lab File: 4V27819.D
Acq: 20 Jun 2017 14:27

Tgt Ion:146 Resp: 6710

Ion	Ratio	Lower	Upper
146	100		
148	74.8	31.1	93.5
75	50.4	18.6	55.6



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **Dup-20170613**
Lab Sample ID: **7060508-02**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 00:00	Prep Date:	06/20/17 14:53	File ID:	4V27820.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 14:53
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27820.D Vial: 61
Acq On : 20 Jun 2017 14:53 Operator: sdp
Sample : 7060508-02 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:29 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

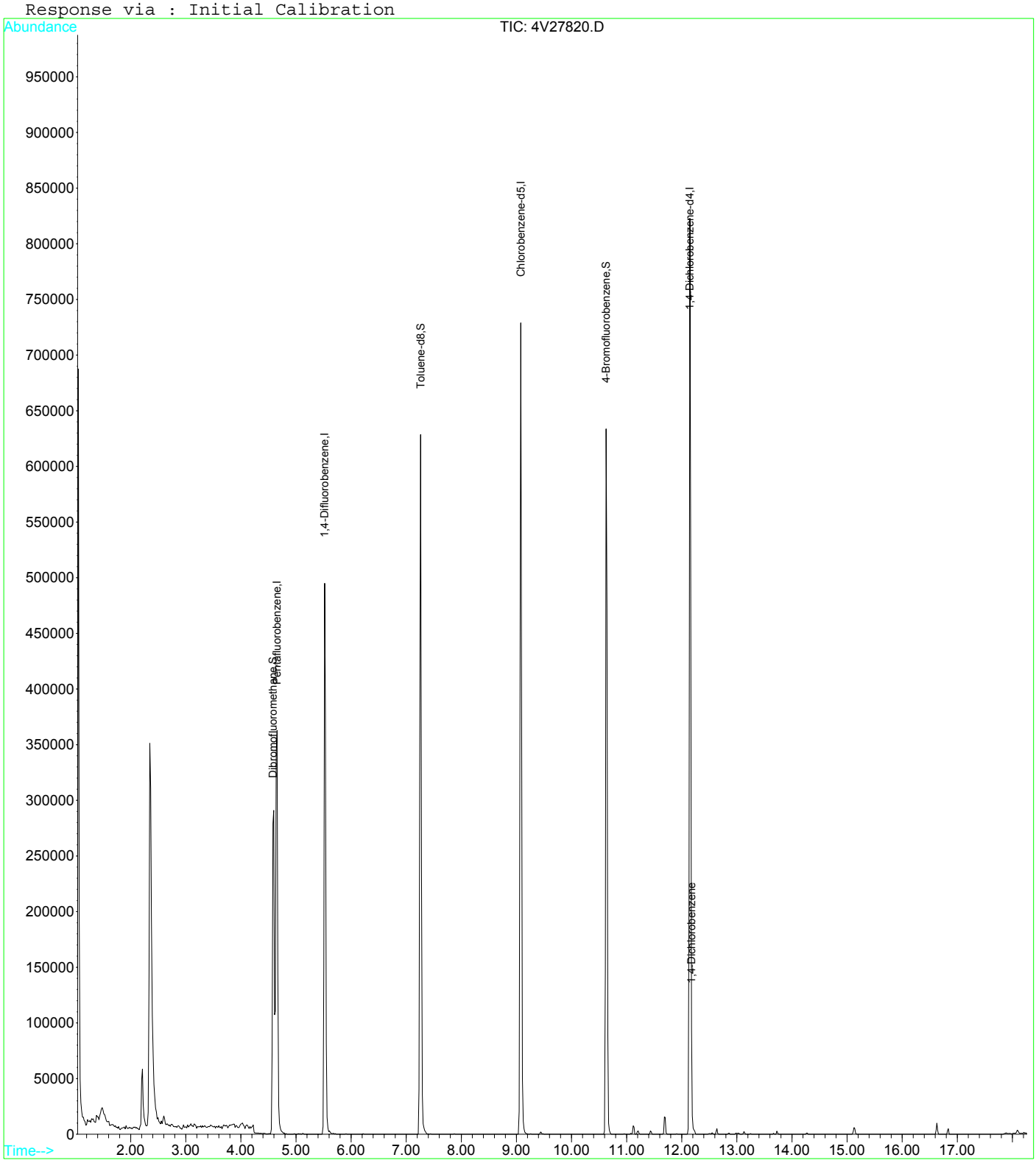
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	309350	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	396477	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	207291	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	238891	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.58	113	198157	33.66	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 112.20%			
43) Toluene-d8	7.26	98	400055	30.44	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.47%			
62) 4-Bromofluorobenzene	10.63	95	206064	29.67	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.90%			
Target Compounds						Qvalue
75) 1,4-Dichlorobenzene	12.18	146	6397	0.62	ug/L	91

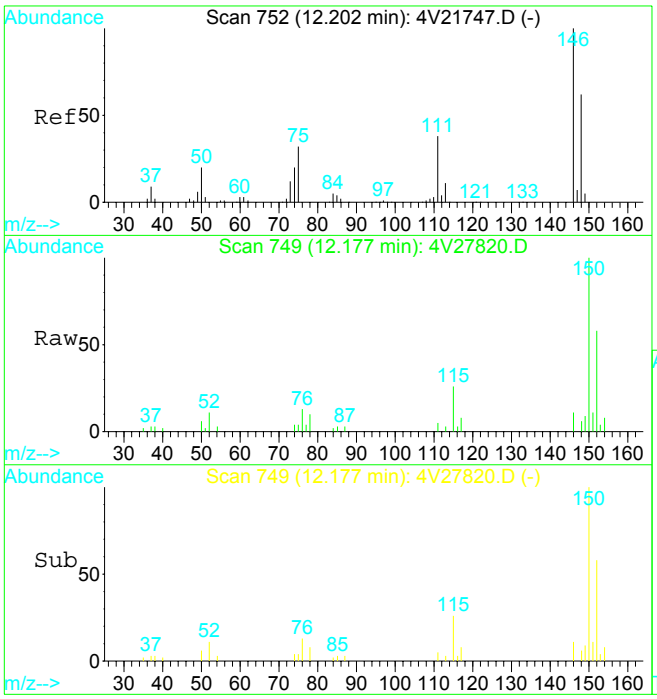
(#) = qualifier out of range (m) = manual integration
4V27820.D 0609VO4.M Tue Jul 11 10:32:29 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27820.D Vial: 61
Acq On : 20 Jun 2017 14:53 Operator: sdp
Sample : 7060508-02 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:29 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration

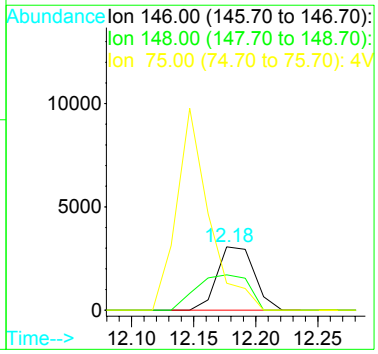




#75
1,4-Dichlorobenzene
Concen: 0.62 ug/L
RT: 12.18 min Scan# 749
Delta R.T. -0.01 min
Lab File: 4V27820.D
Acq: 20 Jun 2017 14:53

Tgt Ion:146 Resp: 6397

Ion	Ratio	Lower	Upper
146	100		
148	55.7	31.1	93.5
75	42.4	18.6	55.6



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-7S-20170613**
Lab Sample ID: **7060508-03**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 15:39	Prep Date:	06/20/17 15:18	File ID:	4V27821.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 15:18
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27821.D Vial: 62
Acq On : 20 Jun 2017 15:18 Operator: sdp
Sample : 7060508-03 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:30 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	287566	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	376496	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	185589	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	241742	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	198176	36.21	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 120.70%			
43) Toluene-d8	7.27	98	352718	28.26	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 94.20%			
62) 4-Bromofluorobenzene	10.63	95	198778	31.97	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 106.57%			

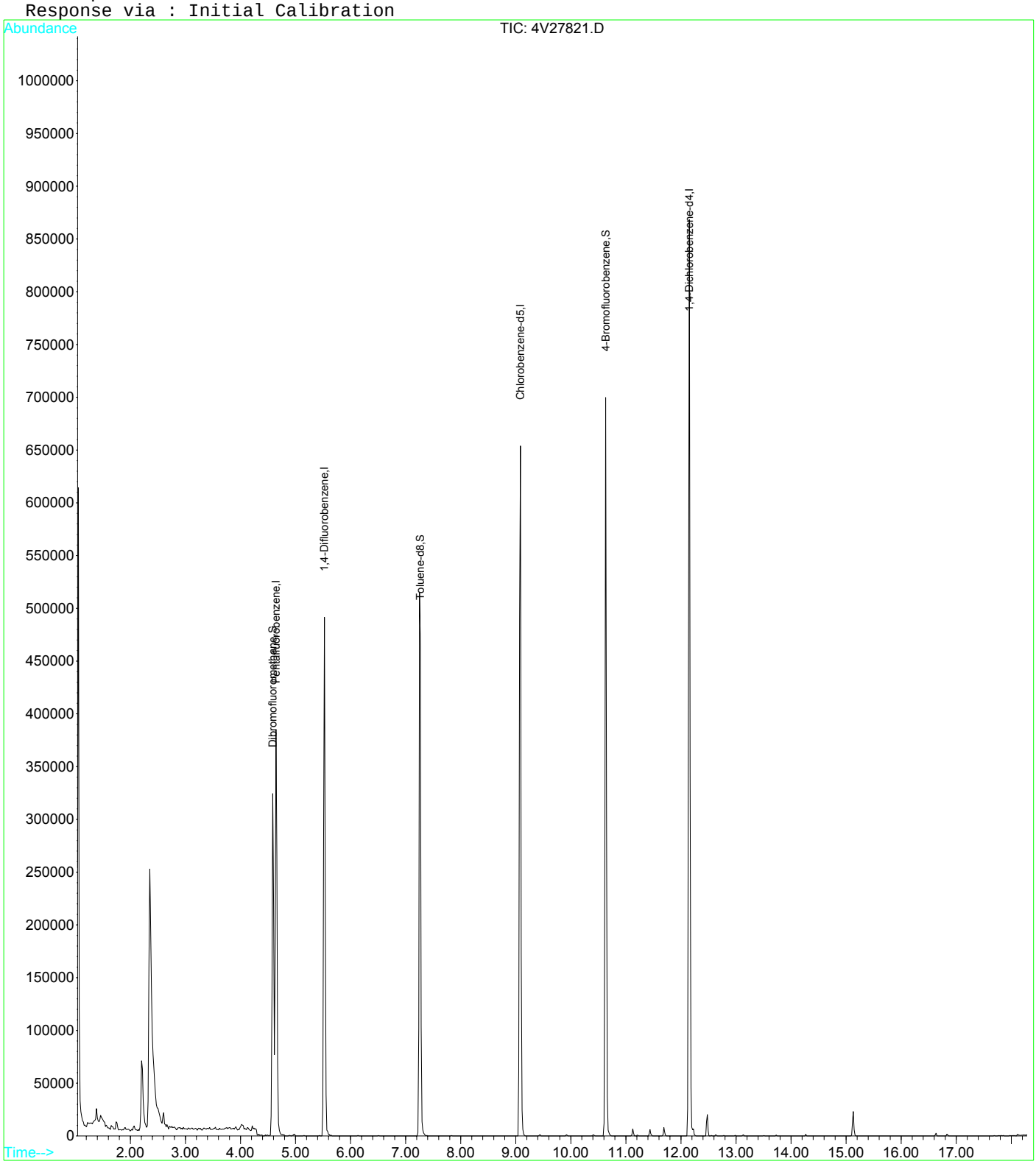
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27821.D 0609VO4.M Wed Jun 21 17:14:10 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27821.D Vial: 62
Acq On : 20 Jun 2017 15:18 Operator: sdp
Sample : 7060508-03 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:30 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-7D-20170613**
Lab Sample ID: **7060508-04**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 16:33	Prep Date:	06/20/17 15:44	File ID:	4V27822.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 15:44
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27822.D Vial: 63
Acq On : 20 Jun 2017 15:44 Operator: sdp
Sample : 7060508-04 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:31 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	280065	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	359215	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	187393	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	221651	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	187083	35.10	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 117.00%			
43) Toluene-d8	7.27	98	359254	30.17	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.57%			
62) 4-Bromofluorobenzene	10.63	95	186047	29.63	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.77%			

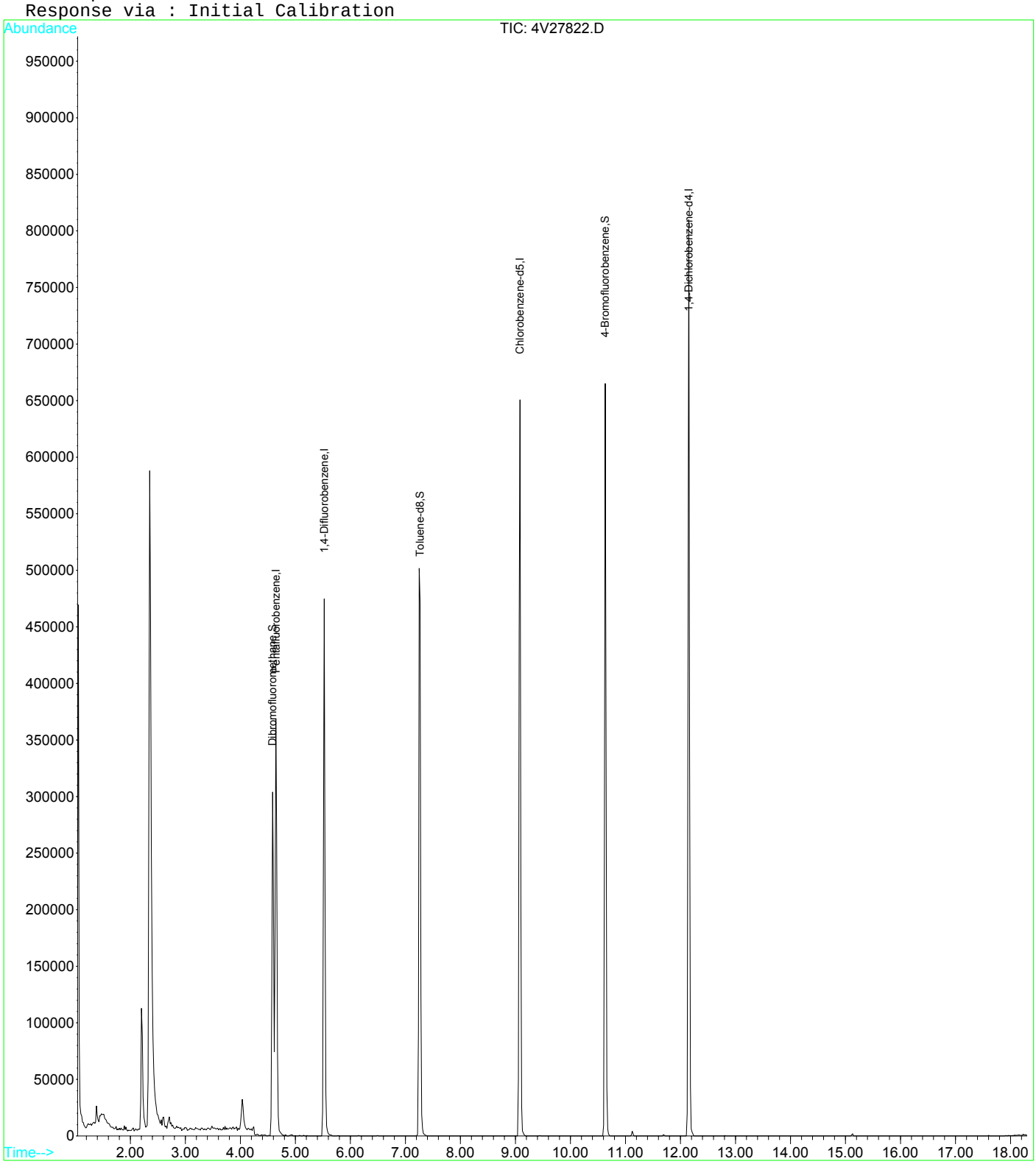
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27822.D 0609VO4.M Wed Jun 21 17:14:12 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27822.D Vial: 63
Acq On : 20 Jun 2017 15:44 Operator: sdp
Sample : 7060508-04 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:31 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-8S-20170613**
Lab Sample ID: **7060508-05**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 17:23	Prep Date:	06/20/17 16:09	File ID:	4V27823.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 16:09
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27823.D Vial: 64
Acq On : 20 Jun 2017 16:09 Operator: sdp
Sample : 7060508-05 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:33 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.64	168	254948	30.00	ug/L	-0.01
33) 1,4-Difluorobenzene	5.52	114	337826	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	181453	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	203242	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.58	113	172936	35.64	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 118.80%			
43) Toluene-d8	7.26	98	325731	29.08	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 96.93%			
62) 4-Bromofluorobenzene	10.63	95	177636	29.22	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 97.40%			

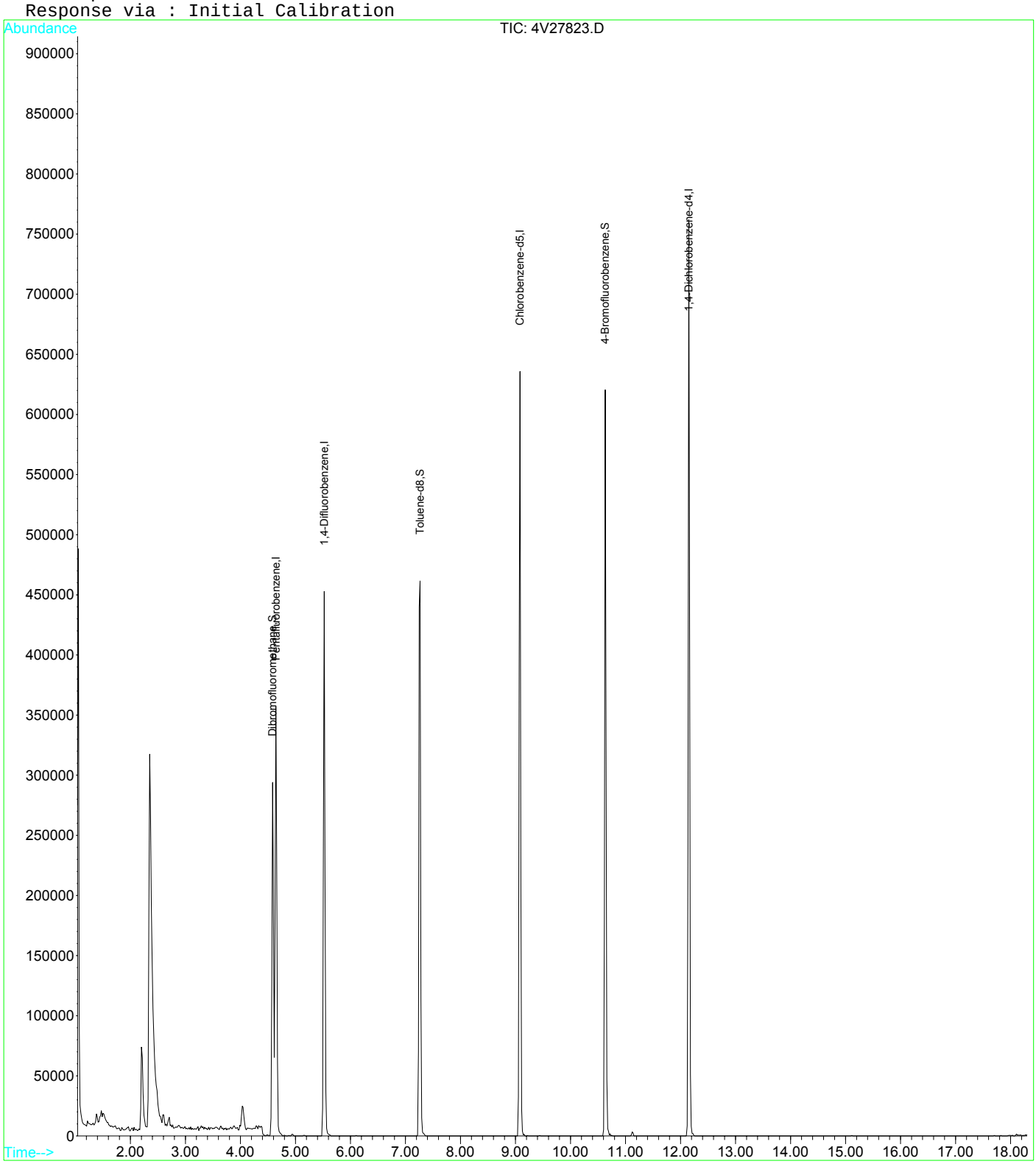
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27823.D 0609VO4.M Wed Jun 21 17:14:14 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27823.D Vial: 64
Acq On : 20 Jun 2017 16:09 Operator: sdp
Sample : 7060508-05 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:33 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-8D-20170613**
Lab Sample ID: **7060508-06**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/13/17 18:07	Prep Date:	06/20/17 16:35	File ID:	4V27824.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 16:35
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27824.D Vial: 65
Acq On : 20 Jun 2017 16:35 Operator: sdp
Sample : 7060508-06 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:33 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	266867	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	342821	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	173241	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	201063	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	177797	35.00	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 116.67%			
43) Toluene-d8	7.26	98	335848	29.55	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.50%			
62) 4-Bromofluorobenzene	10.63	95	174827	30.12	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.40%			

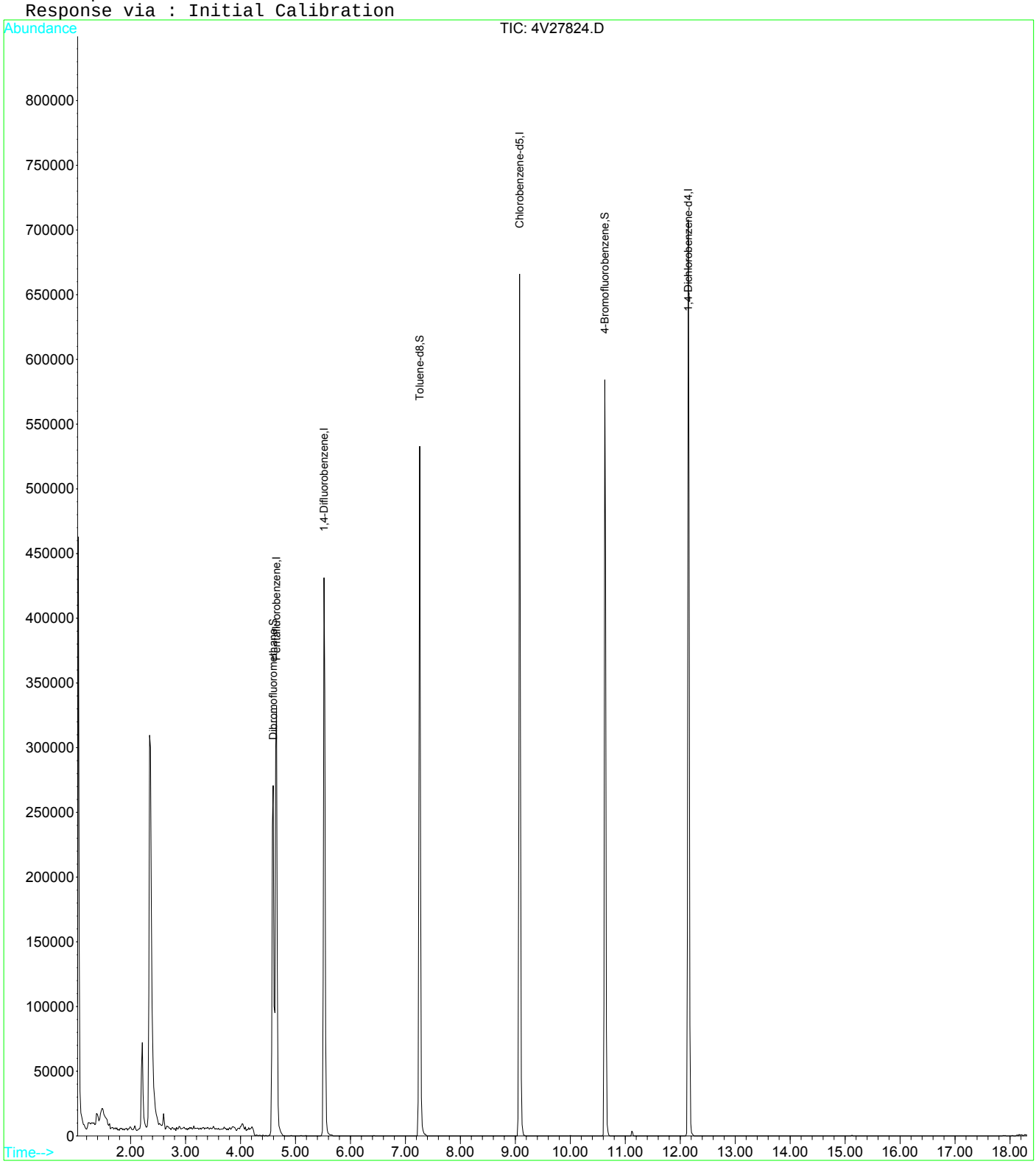
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27824.D 0609VO4.M Wed Jun 21 17:14:15 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27824.D Vial: 65
Acq On : 20 Jun 2017 16:35 Operator: sdp
Sample : 7060508-06 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:33 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27824.D 0609VO4.M Wed Jun 21 17:14:16 2017 SS Page 2

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-4S-20170614**
Lab Sample ID: **7060508-07**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 09:01	Prep Date:	06/20/17 17:00	File ID:	4V27825.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:00
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27825.D Vial: 66
Acq On : 20 Jun 2017 17:00 Operator: sdp
Sample : 7060508-07 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:41 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

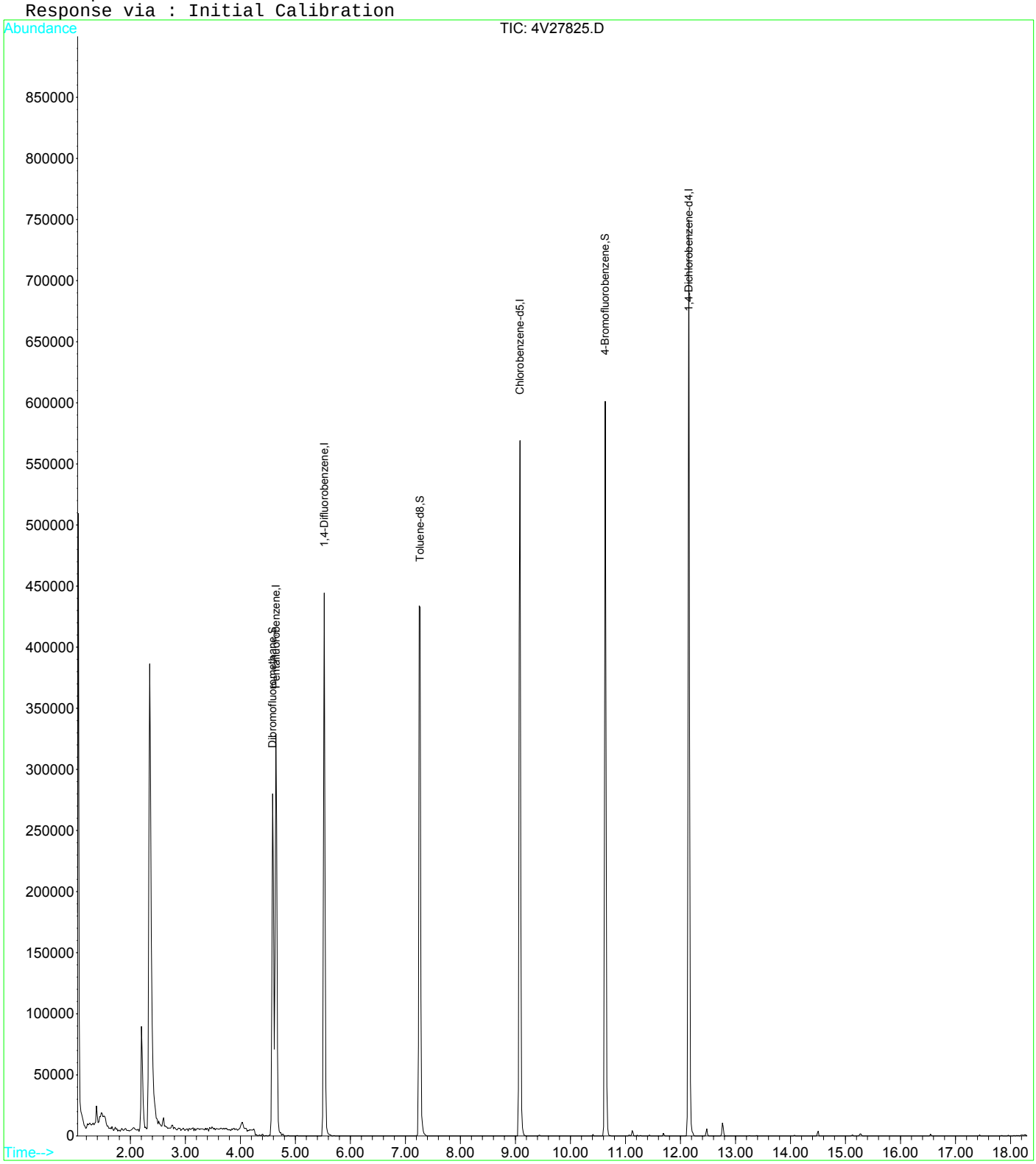
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.64	168	250561	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	323652	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	170524	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	189859	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	171066	35.87	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 119.57%			
43) Toluene-d8	7.27	98	308027	28.71	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 95.70%			
62) 4-Bromofluorobenzene	10.63	95	170437	29.83	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 99.43%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
4V27825.D 0609VO4.M Wed Jun 21 17:14:17 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27825.D Vial: 66
Acq On : 20 Jun 2017 17:00 Operator: sdp
Sample : 7060508-07 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:41 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27825.D 0609VO4.M Wed Jun 21 17:14:18 2017 SS Page 2

13
13.2.

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-4D-20170614**
Lab Sample ID: **7060508-08**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 10:06	Prep Date:	06/20/17 17:26	File ID:	4V27826.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:26
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27826.D Vial: 67
Acq On : 20 Jun 2017 17:26 Operator: sdp
Sample : 7060508-08 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:41 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	258724	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	333889	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	171380	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	198755	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	176893	35.92	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 119.73%			
43) Toluene-d8	7.27	98	313076	28.28	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 94.27%			
62) 4-Bromofluorobenzene	10.63	95	177204	30.86	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.87%			

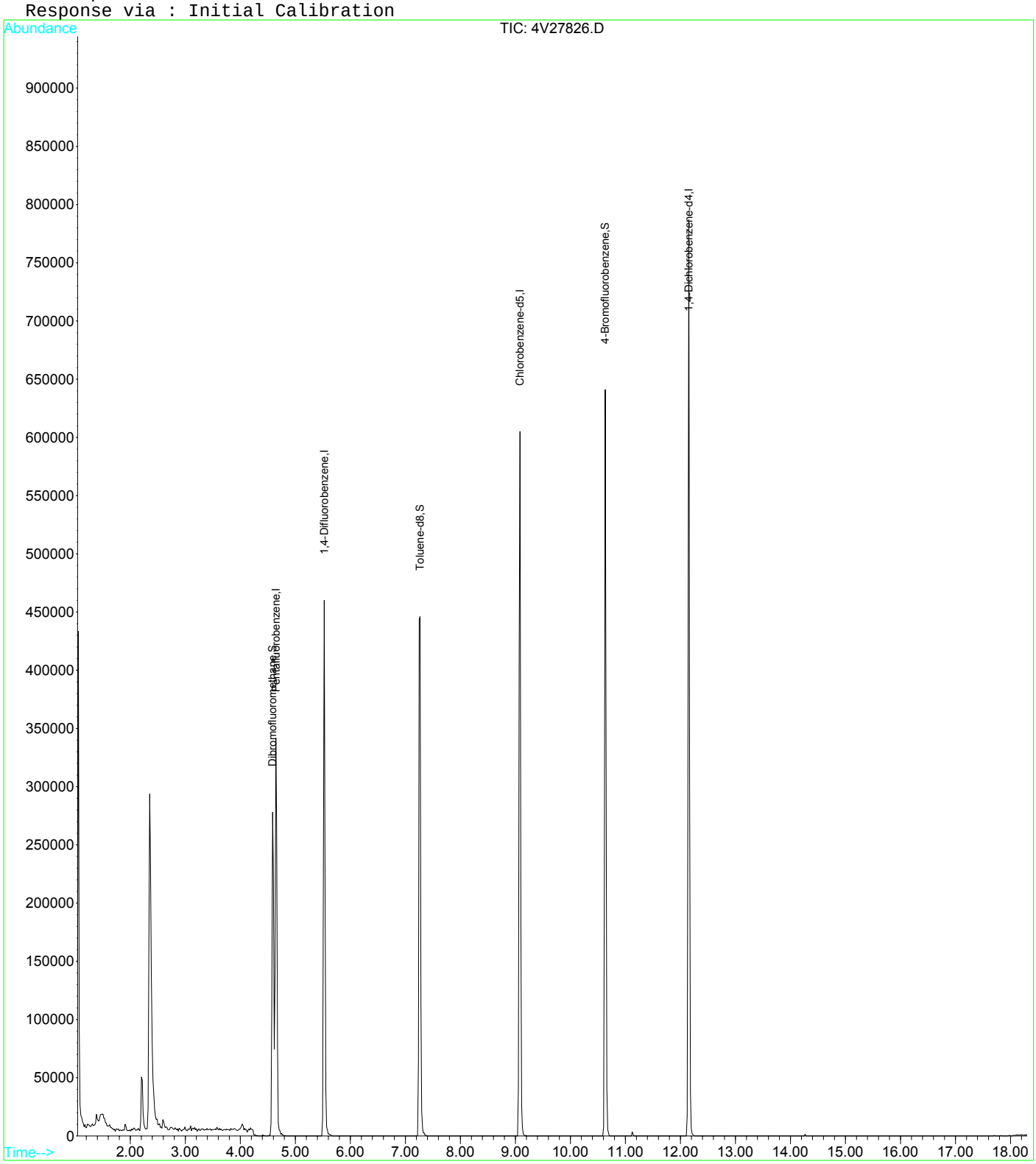
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27826.D 0609VO4.M Wed Jun 21 17:14:19 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27826.D Vial: 67
Acq On : 20 Jun 2017 17:26 Operator: sdp
Sample : 7060508-08 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:41 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27826.D 0609VO4.M Wed Jun 21 17:14:19 2017 SS Page 2

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-3-20170614**
Lab Sample ID: **7060508-09**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 10:59	Prep Date:	06/20/17 17:52	File ID:	4V27827.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:52
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27827.D Vial: 68
Acq On : 20 Jun 2017 17:52 Operator: sdp
Sample : 7060508-09 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

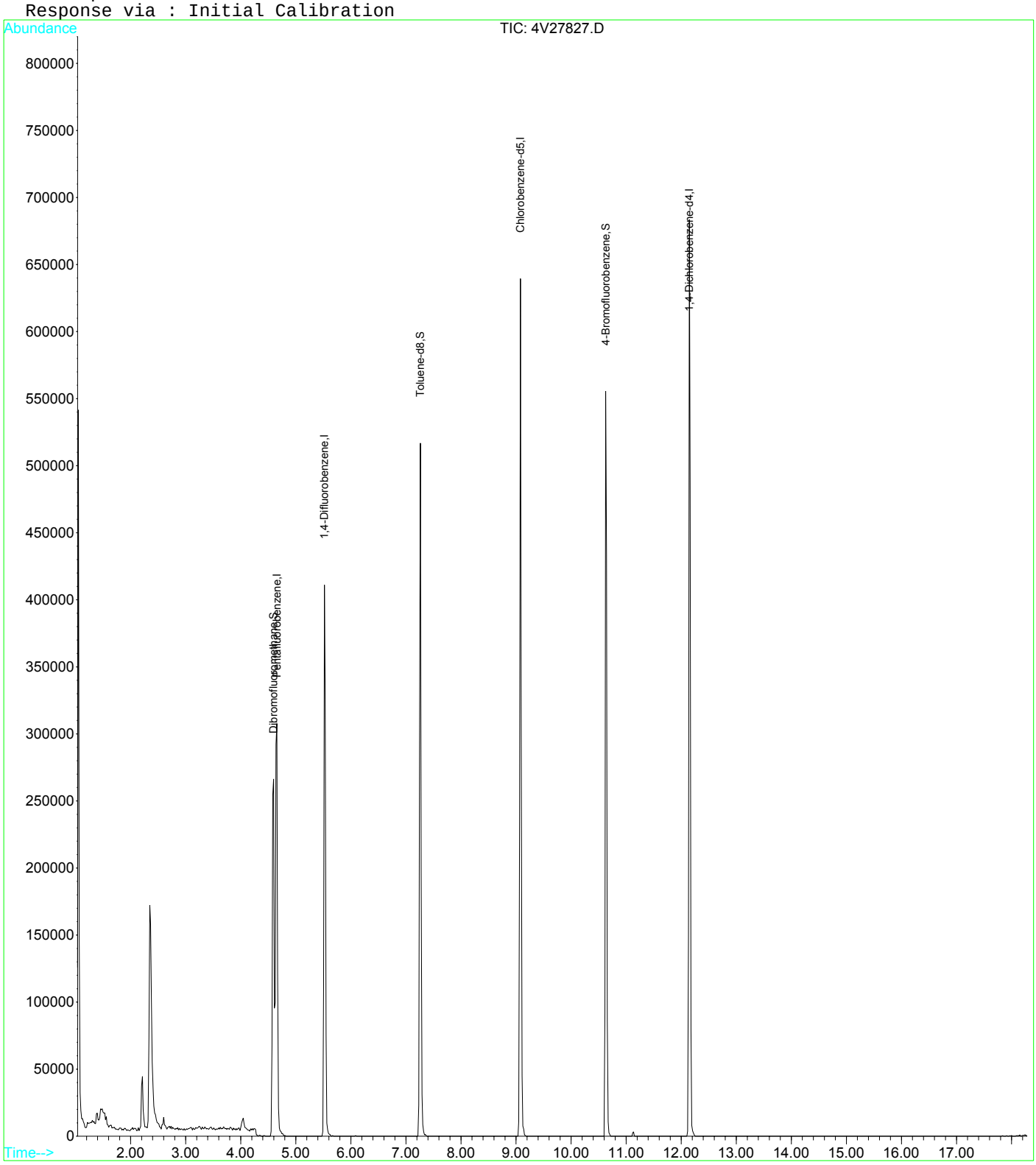
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	254509	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	321595	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	165575	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	192160	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	175941	36.32	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 121.07%			
43) Toluene-d8	7.26	98	306414	28.74	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 95.80%			
62) 4-Bromofluorobenzene	10.63	95	167889	30.26	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.87%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
4V27827.D 0609VO4.M Wed Jun 21 17:14:20 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27827.D Vial: 68
Acq On : 20 Jun 2017 17:52 Operator: sdp
Sample : 7060508-09 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:42 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-9S-20170614**
Lab Sample ID: **7060508-10**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 11:51	Prep Date:	06/20/17 18:18	File ID:	4V27828.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 18:18
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27828.D Vial: 69
Acq On : 20 Jun 2017 18:18 Operator: sdp
Sample : 7060508-10 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	247472	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	307230	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	165671	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	185796	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	166521	35.35	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 117.83%			
43) Toluene-d8	7.27	98	298976	29.35	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 97.83%			
62) 4-Bromofluorobenzene	10.63	95	162281	29.23	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 97.43%			

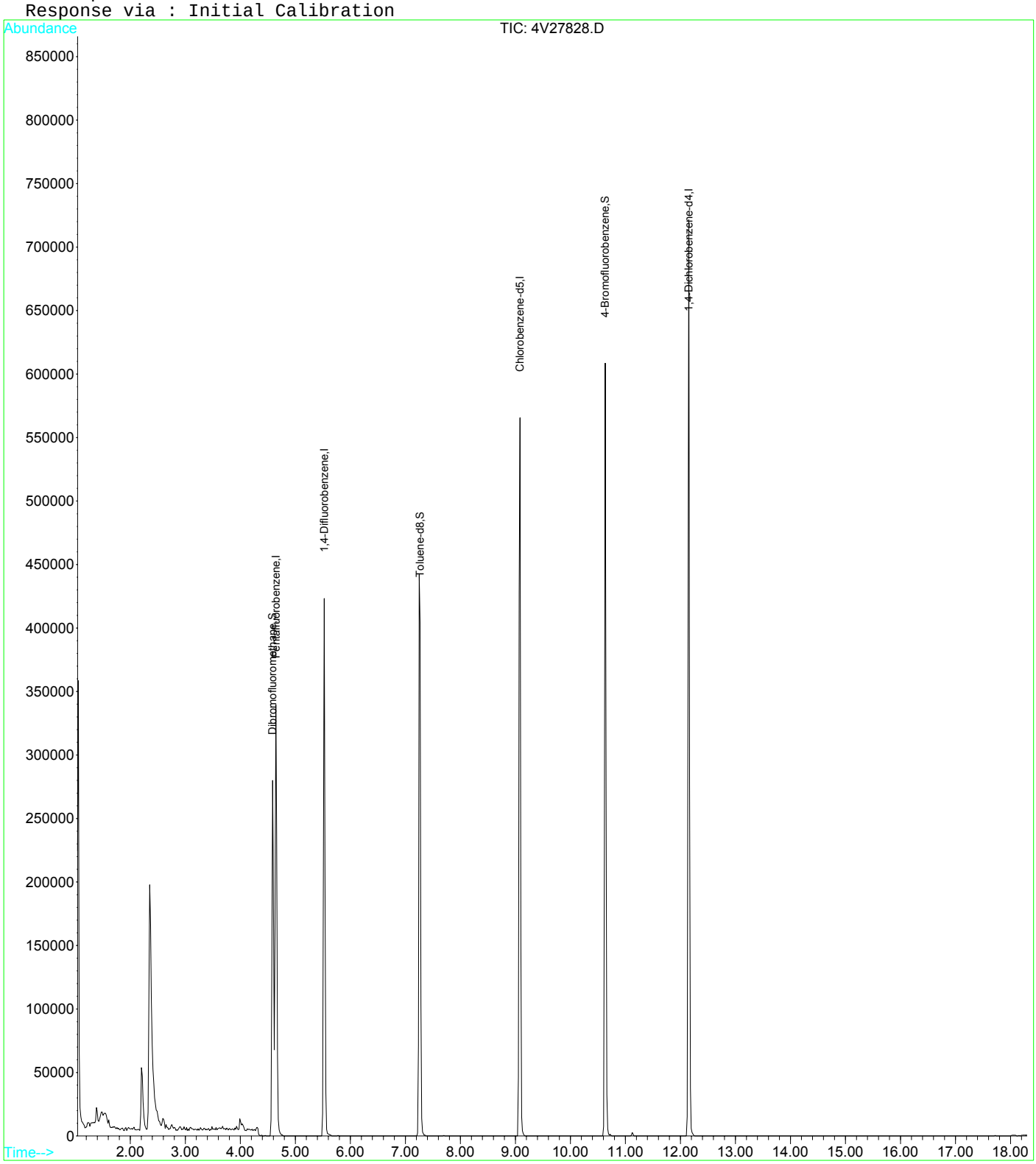
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27828.D 0609VO4.M Wed Jun 21 17:14:21 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27828.D Vial: 69
Acq On : 20 Jun 2017 18:18 Operator: sdp
Sample : 7060508-10 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:42 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27828.D 0609VO4.M Wed Jun 21 17:14:21 2017 SS Page 2

13 13.2.

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **FB-20170614**
Lab Sample ID: **7060508-11**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 12:00	Prep Date:	06/22/17 16:37	File ID:	4V27853.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 16:37
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27853.D Vial: 11
Acq On : 22 Jun 2017 16:37 Operator: sdp
Sample : 7060508-11 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:14 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	233076	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	305737	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	164186	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	177695	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	160814	36.25	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 120.83%			
43) Toluene-d8	7.26	98	294008	29.01	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 96.70%			
62) 4-Bromofluorobenzene	10.63	95	159915	29.07	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 96.90%			

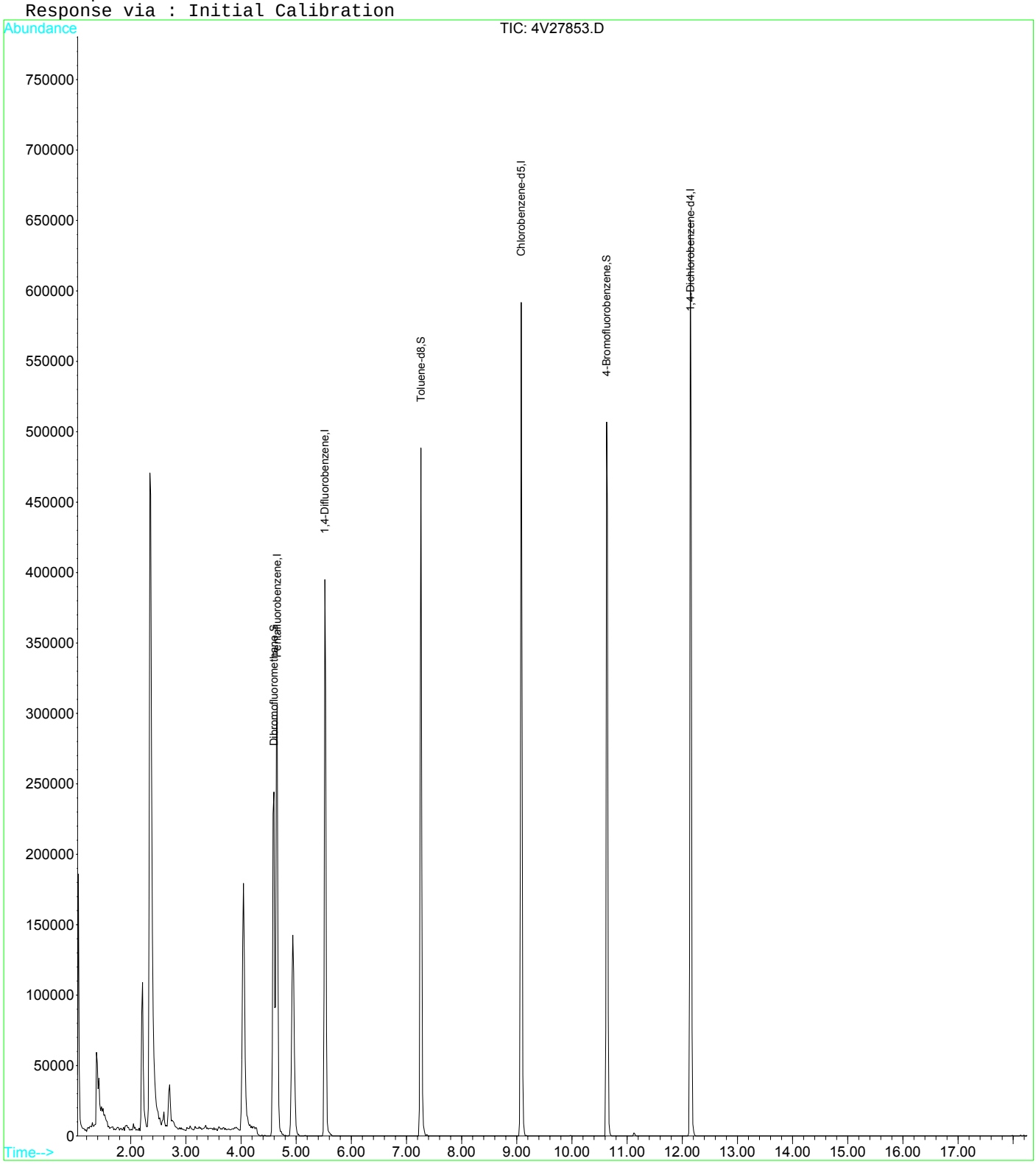
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27853.D 0609VO4.M Fri Jun 23 15:26:49 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27853.D Vial: 11
Acq On : 22 Jun 2017 16:37 Operator: sdp
Sample : 7060508-11 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:14 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **MW-9D-20170614**
Lab Sample ID: **7060508-12**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 12:33	Prep Date:	06/22/17 17:02	File ID:	4V27854.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 17:02
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27854.D Vial: 12
Acq On : 22 Jun 2017 17:02 Operator: sdp
Sample : 7060508-12 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:15 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.66	168	238650	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.52	114	283481	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	151242	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	171274	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	163153	35.92	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 119.73%			
43) Toluene-d8	7.26	98	267098	28.42	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 94.73%			
62) 4-Bromofluorobenzene	10.63	95	146932	28.99	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 96.63%			

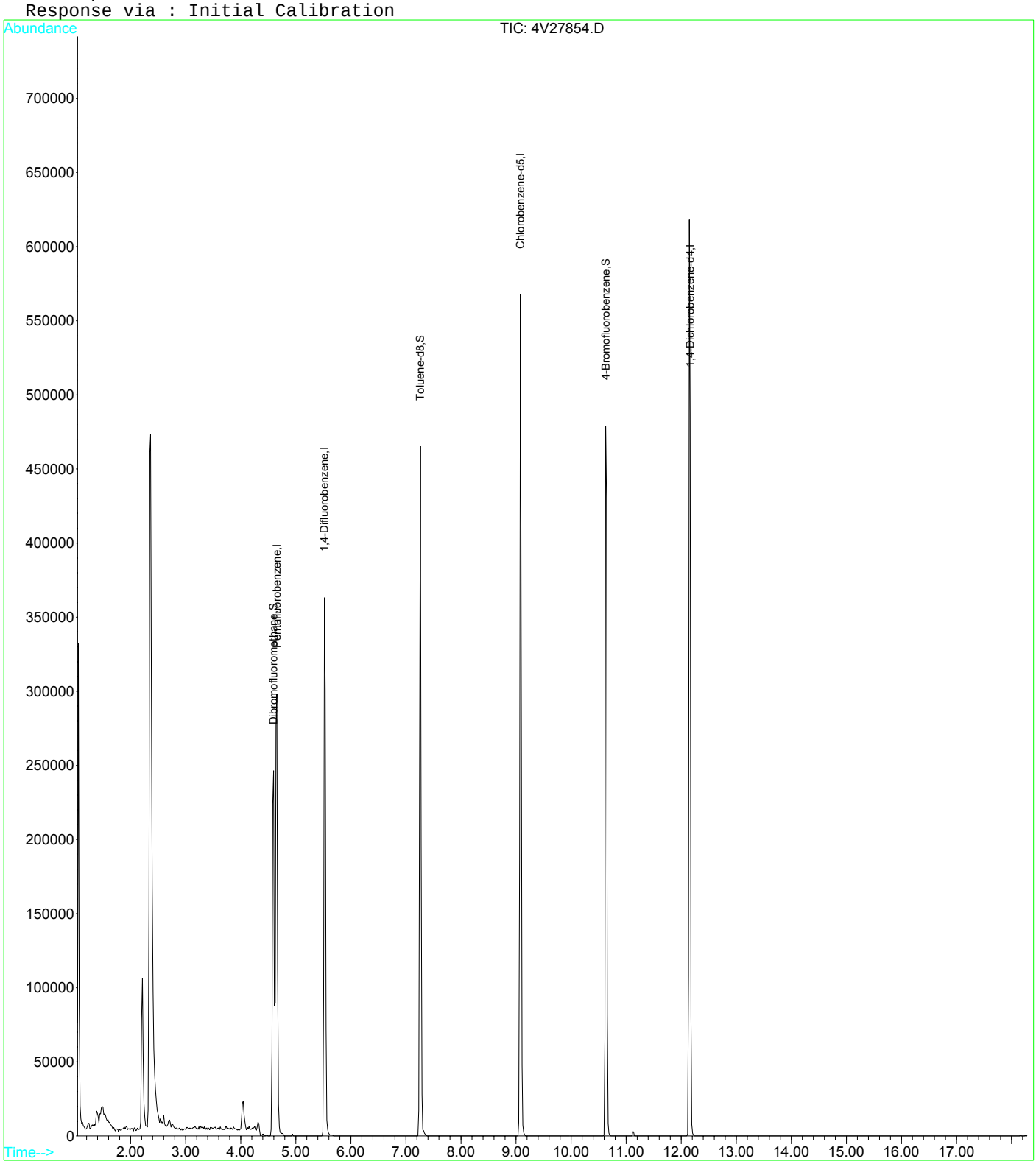
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27854.D 0609VO4.M Fri Jun 23 15:26:51 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27854.D Vial: 12
Acq On : 22 Jun 2017 17:02 Operator: sdp
Sample : 7060508-12 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:15 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: **Brown and Caldwell USR**
Client Sample ID: **Trip Blank-20170614**
Lab Sample ID: **7060508-13**
Project: **Patchogue**
Work Order: **7060508**

Date Sampled:	06/14/17 00:00	Prep Date:	06/22/17 16:11	File ID:	4V27852.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 16:11
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

Quantitation Report (QT/LSC Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27852.D Vial: 10
Acq On : 22 Jun 2017 16:11 Operator: sdp
Sample : 7060508-13 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:14 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.64	168	240140	30.00	ug/L	-0.01
33) 1,4-Difluorobenzene	5.52	114	303308	30.00	ug/L	-0.01
52) Chlorobenzene-d5	9.08	82	151775	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	176062	30.00	ug/L	-0.01
System Monitoring Compounds						
26) Dibromofluoromethane	4.58	113	165185	36.14	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 120.47%			
43) Toluene-d8	7.26	98	276259	27.47	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 91.57%			
62) 4-Bromofluorobenzene	10.63	95	155370	30.55	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.83%			

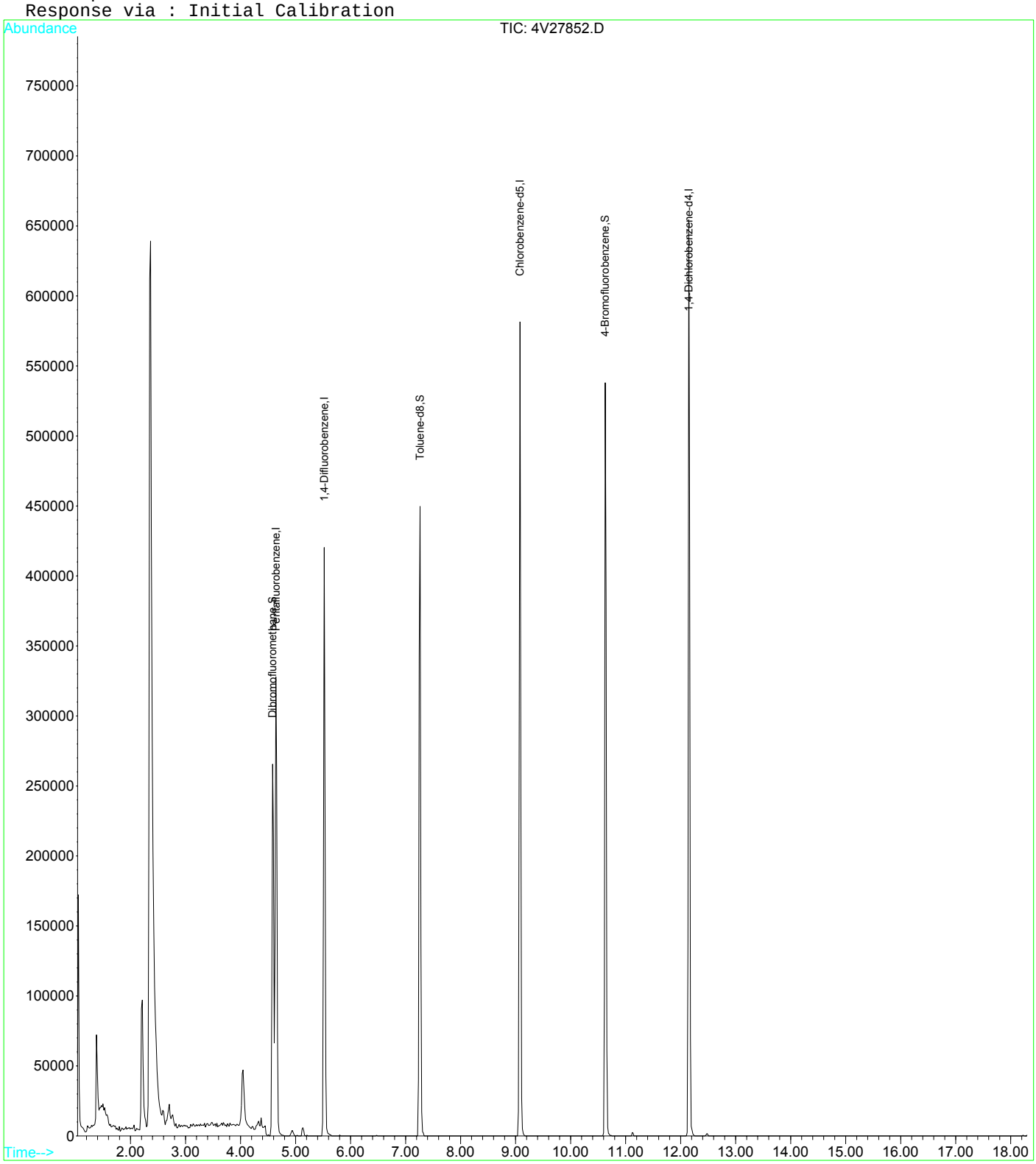
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
4V27852.D 0609VO4.M Fri Jun 23 15:26:47 2017 SS Page 1

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27852.D Vial: 10
Acq On : 22 Jun 2017 16:11 Operator: sdp
Sample : 7060508-13 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:14 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27852.D 0609VO4.M Fri Jun 23 15:26:47 2017 SS Page 2

SURROGATE RECOVERIES

Analysis Class: VOLATILES

Matrix: Ground Water **Method:** SW 846 8260B

Lab Number	File ID	DBF	TOL-d8	BFB
7060508-01	4V27819.D	111	103	95.4
7060508-02	4V27820.D	112	101	98.9
7060508-03	4V27821.D	121	94.2	107
7060508-04	4V27822.D	117	101	98.8
7060508-05	4V27823.D	119	96.9	97.4
7060508-06	4V27824.D	117	98.5	100
7060508-07	4V27825.D	120	95.7	99.4
7060508-08	4V27826.D	120	94.3	103
7060508-09	4V27827.D	121	95.8	101
7060508-10	4V27828.D	118	97.8	97.4
7060508-11	4V27853.D	121	96.7	96.9
7060508-12	4V27854.D	120	94.7	96.6
7060508-13	4V27852.D	120	91.6	102
B7F2163-BLK1	4V27814.D	110	98.3	98.6
B7F2163-BS1	4V27813.D	102	103	95.2
B7F2163-MS1	4V27839.D	117	104	103
B7F2163-MSD1	4V27840.D	110	102	102
B7F2331-BLK1	4V27847.D	113	100	100
B7F2331-BS1	4V27846.D	106	102	103
B7F2331-MS1	4V27871.D	106	100	100
B7F2331-MSD1	4V27872.D	102	98.1	101

Surrogate Limits		Lo Limit	Hi Limit
DBF	Dibromofluoromethane	70	130
TOL-d8	Toluene-d8	70	130
BFB	4-Bromofluorobenzene	70	130

F-II

* - Outside of QC Limits

Volatile Organics - GC/MS - Quality Control
Aqua Pro-Tech Laboratories

Batch B7F2163 **Method: SW 846 8260B** **Prepared: 06/20/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2163-BS1		Benzene	50.9	ug/L	50.0		102	70-130		
B7F2163-BS1		EthylBenzene	50.1	ug/L	50.0		100	70-130		
B7F2163-BS1		m+p-Xylenes	97.1	ug/L	100		97.1	70-130		
B7F2163-BS1		Methyl tert-Butyl Ether	50.5	ug/L	50.0		101	70-130		
B7F2163-BS1		o-Xylene	50.6	ug/L	50.0		101	70-130		
B7F2163-BS1		Toluene	50.7	ug/L	50.0		101	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27813.D Vial: 54
Acq On : 20 Jun 2017 11:56 Operator: sdp
Sample : B7F2163-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	345471	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.53	114	404292	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.07	82	221722	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	262268	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	201596	30.66	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.20%			
43) Toluene-d8	7.25	98	413472	30.85	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.83%			
62) 4-Bromofluorobenzene	10.63	95	212144	28.56	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 95.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.13	85	299147m	44.70	ug/L	
3) Chloromethane	1.31	50	206053	48.27	ug/L	93
4) Acrolein	2.08	56	75601	47.23	ug/L	90
5) Vinyl Chloride	1.31	62	302389	54.27	ug/L	98
6) Bromomethane	1.52	94	96651m	50.26	ug/L	
7) Chloroethane	1.59	64	197229	47.39	ug/L	98
8) Trichlorofluoromethane	1.77	101	610359	50.77	ug/L	99
9) 1,1,2-Trichloro-1,2,2 Trif	2.16	101	396944	52.10	ug/L	89
10) Acetone	2.20	43	346392	58.60	ug/L	87
11) 1,1-Dichloroethene	2.16	61	578122	51.61	ug/L	85
12) tert-Butyl Alcohol	2.76	59	763342	516.30	ug/L	97
13) Methyl Acetate	2.49	43	536018	46.97	ug/L	87
14) Methylene Chloride	2.59	84	346857	47.83	ug/L	89
15) Carbon Disulfide	2.34	76	1001240	51.11	ug/L	99
16) Acrylonitrile	2.84	53	223446	51.63	ug/L	94
17) Methyl tert-Butyl Ether	2.87	73	901165	50.45	ug/L	95
18) trans-1,2-Dichloroethene	2.86	61	520514	50.22	ug/L	93
19) 1,1-Dichloroethane	3.35	63	639021	49.78	ug/L	95
20) Vinyl Acetate	3.38	43	1047039	48.47	ug/L	94
21) 2-Butanone	4.02	43	369258	47.46	ug/L	99
22) 2,2-Dichloropropane	3.99	77	536172	50.10	ug/L	96
23) cis-1,2-Dichloroethene	3.99	61	615549	50.43	ug/L	97
24) Chloroform	4.41	83	615947	49.19	ug/L	100
25) Bromochloromethane	4.26	49	327179	45.26	ug/L #	66
27) Cyclohexane	4.62	56	260174	44.76	ug/L #	72
28) 1,1,1-Trichloroethane	4.56	97	632865	51.52	ug/L	96
29) 1,1-Dichloropropene	4.75	75	385562	52.55	ug/L	98
30) Carbon Tetrachloride	4.74	117	616372	51.75	ug/L	100
31) 1,2-Dichloroethane	5.06	62	619452	50.38	ug/L	97
32) Benzene	4.97	78	717884	50.87	ug/L	98
34) Trichloroethene	5.78	130	298321	52.41	ug/L	94
35) Methylcyclohexane	6.03	83	261896	46.35	ug/L	97
36) 1,2-Dichloropropane	6.09	63	183440	52.78	ug/L	94
37) Bromodichloromethane	6.42	83	497991	52.31	ug/L	98
38) p-Dioxane	6.23	88	28012	503.09	ug/L #	81
39) Dibromomethane	6.20	174	267011	52.51	ug/L	83
41) 4-Methyl-2-Pentanone	7.15	43	358196	48.37	ug/L	95
42) cis-1,3-Dichloropropene	6.95	75	390397	46.80	ug/L	97
44) Toluene	7.34	91	828090	50.68	ug/L	99
45) trans-1,3-Dichloropropene	7.67	75	447182	48.19	ug/L	96
46) 1,1,2-Trichloroethane	7.91	97	208696	46.91	ug/L	94
47) 2-Hexanone	8.19	43	293553	48.16	ug/L	87
48) 1,3-Dichloropropane	8.10	76	334226	53.82	ug/L	99
49) Tetrachloroethene	7.97	166	374319	53.52	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27813.D Vial: 54
Acq On : 20 Jun 2017 11:56 Operator: sdp
Sample : B7F2163-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

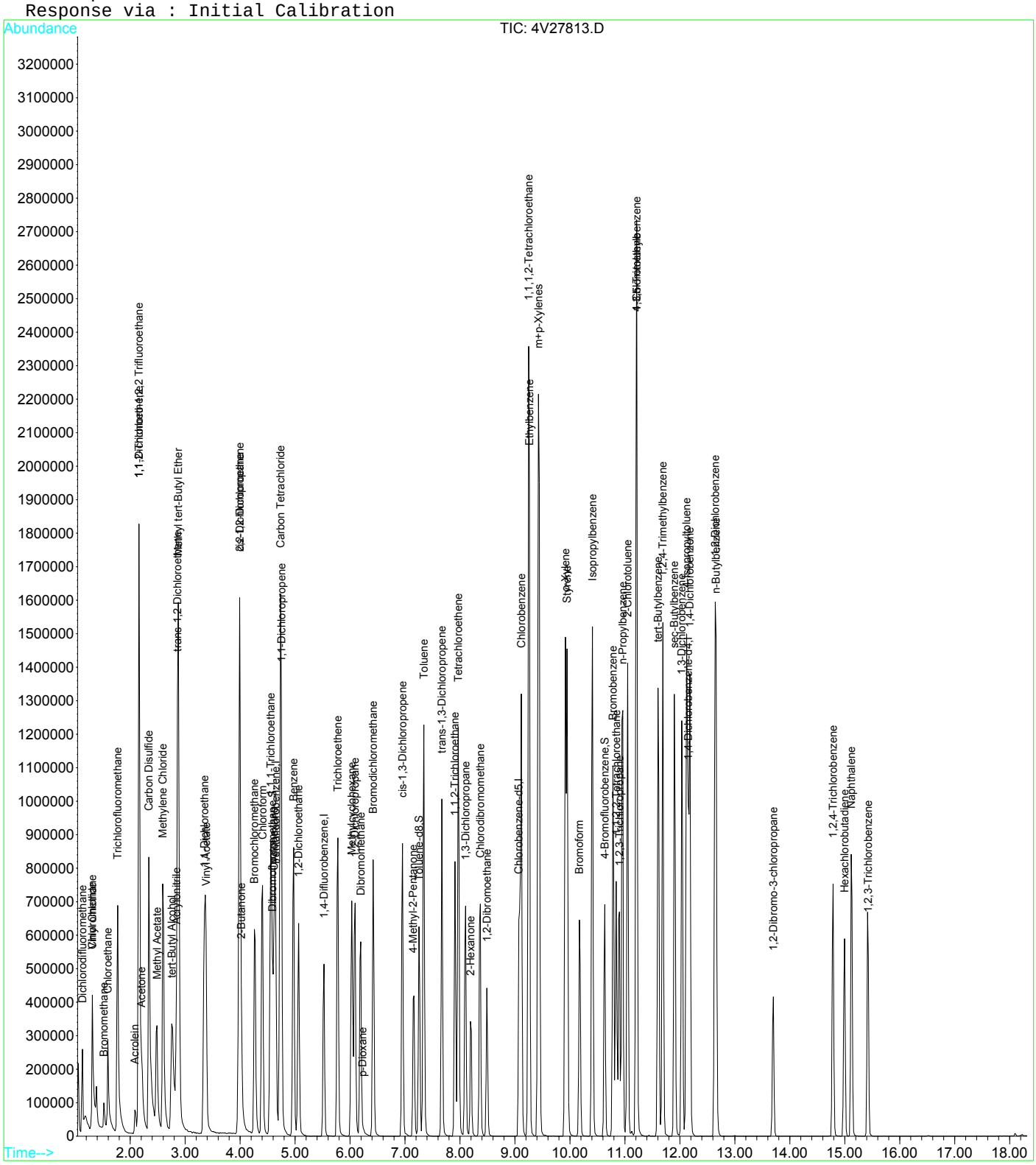
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.37	129	407703	55.04	ug/L		98
51)	1,2-Dibromoethane	8.49	107	279100	51.54	ug/L	#	65
53)	Chlorobenzene	9.11	112	641948	47.67	ug/L		100
54)	1,1,1,2-Tetrachloroethane	9.25	131	345462	49.62	ug/L		92
55)	Ethylbenzene	9.26	91	1090042	50.07	ug/L		100
56)	m+p-Xylenes	9.43	106	788355	97.10	ug/L		87
57)	o-Xylene	9.92	91	898438	50.61	ug/L		97
58)	Styrene	9.95	104	619198	48.53	ug/L		86
59)	Isopropylbenzene	10.41	105	1106056	45.78	ug/L		97
60)	Bromoform	10.17	173	335423	44.42	ug/L		95
61)	1,1,2,2-Tetrachloroethane	10.84	83	284010	46.95	ug/L		98
63)	1,2,3-Trichloropropane	10.90	110	136936	49.81	ug/L		96
64)	n-Propylbenzene	10.96	91	1179214	50.83	ug/L	#	88
65)	Bromobenzene	10.78	77	418682	49.31	ug/L		71
66)	2-Chlorotoluene	11.05	91	770493	47.98	ug/L		88
67)	4-Chlorotoluene	11.21	91	934521	47.97	ug/L	#	92
68)	1,3,5-Trimethylbenzene	11.21	105	898999	49.54	ug/L		96
69)	tert-Butylbenzene	11.60	119	748879	52.32	ug/L		86
70)	1,2,4-Trimethylbenzene	11.69	105	897391	50.79	ug/L		90
71)	sec-Butylbenzene	11.90	105	973262	51.56	ug/L		95
72)	4-Isopropyltoluene	12.12	119	886496	50.15	ug/L		93
73)	1,3-Dichlorobenzene	12.03	146	548843	47.99	ug/L		96
75)	1,4-Dichlorobenzene	12.18	146	554189	48.63	ug/L		98
76)	n-Butylbenzene	12.66	91	706340	52.03	ug/L		95
77)	1,2-Dichlorobenzene	12.64	146	497102	48.55	ug/L		95
78)	1,2-Dibromo-3-chloropropan	13.70	75	128222	50.74	ug/L		83
79)	1,2,4-Trichlorobenzene	14.79	180	285374	51.32	ug/L		93
80)	Hexachlorobutadiene	15.00	225	161216	46.31	ug/L		98
81)	Naphthalene	15.12	128	801847	49.83	ug/L		96
82)	1,2,3-Trichlorobenzene	15.43	180	254709	50.19	ug/L		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27813.D Vial: 54
Acq On : 20 Jun 2017 11:56 Operator: sdp
Sample : B7F2163-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Volatile Organics - GC/MS - Quality Control
Aqua Pro-Tech Laboratories

Batch B7F2163 **Method: SW 846 8260B** **Prepared: 06/20/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2163-MS1	7060508-03	Benzene	58.4	ug/L	50.0	0.00	117	70-130		
B7F2163-MS1	7060508-03	EthylBenzene	56.2	ug/L	50.0	0.00	112	70-130		
B7F2163-MS1	7060508-03	m+p-Xylenes	109	ug/L	100	0.00	109	70-130		
B7F2163-MS1	7060508-03	Methyl tert-Butyl Ether	66.2	ug/L	50.0	0.00	132*	70-130		
B7F2163-MS1	7060508-03	o-Xylene	60.8	ug/L	50.0	0.00	122	70-130		
B7F2163-MS1	7060508-03	Toluene	58.2	ug/L	50.0	0.00	116	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27839.D Vial: 80
Acq On : 20 Jun 2017 22:55 Operator: sdp
Sample : B7F2163-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.65	168	266932	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.52	114	323392	30.00	ug/L		-0.01
52) Chlorobenzene-d5	9.08	82	181980	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	235718	30.00	ug/L		-0.01
System Monitoring Compounds							
26) Dibromofluoromethane	4.59	113	178257	35.09	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 116.97%				
43) Toluene-d8	7.26	98	335404	31.28	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 104.27%				
62) 4-Bromofluorobenzene	10.63	95	188665	30.94	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 103.13%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.12	85	278648m	53.88	ug/L		
3) Chloromethane	1.30	50	162062	49.14	ug/L		99
4) Acrolein	2.09	56	70476	56.99	ug/L		90
5) Vinyl Chloride	1.32	62	271457	63.05	ug/L		97
6) Bromomethane	1.53	94	44224m	28.95	ug/L		
7) Chloroethane	1.60	64	206640	69.39	ug/L		97
8) Trichlorofluoromethane	1.78	101	641529	69.07	ug/L		99
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	360431	61.23	ug/L	#	79
10) Acetone	2.21	43	379572	83.11	ug/L		87
11) 1,1-Dichloroethene	2.17	61	571136	65.98	ug/L		84
12) tert-Butyl Alcohol	2.76	59	644748	564.40	ug/L		95
13) Methyl Acetate	2.48	43	485755	55.09	ug/L		86
14) Methylene Chloride	2.60	84	356613	63.65	ug/L		95
15) Carbon Disulfide	2.35	76	951100	62.84	ug/L		98
16) Acrylonitrile	2.84	53	219477	65.64	ug/L		93
17) Methyl tert-Butyl Ether	2.88	73	913316	66.17	ug/L		91
18) trans-1,2-Dichloroethene	2.87	61	536753	67.02	ug/L		95
19) 1,1-Dichloroethane	3.34	63	673701	67.93	ug/L		98
20) Vinyl Acetate	3.37	43	1045016	62.60	ug/L		93
21) 2-Butanone	4.01	43	373342	62.10	ug/L		99
22) 2,2-Dichloropropane	3.98	77	499073	60.36	ug/L		99
23) cis-1,2-Dichloroethene	4.00	61	625257	66.29	ug/L		99
24) Chloroform	4.40	83	600341	62.04	ug/L		99
25) Bromochloromethane	4.27	49	209347	37.48	ug/L	#	38
27) Cyclohexane	4.62	56	213731	47.59	ug/L	#	70
28) 1,1,1-Trichloroethane	4.57	97	599884	63.21	ug/L		99
29) 1,1-Dichloropropene	4.74	75	351149	61.95	ug/L		97
30) Carbon Tetrachloride	4.74	117	623645	67.77	ug/L		99
31) 1,2-Dichloroethane	5.07	62	638292	67.18	ug/L		98
32) Benzene	4.97	78	636337	58.36	ug/L		99
34) Trichloroethene	5.77	130	271447	59.62	ug/L		96
35) Methylcyclohexane	6.04	83	210707	46.62	ug/L		96
36) 1,2-Dichloropropane	6.08	63	156917	56.44	ug/L		99
37) Bromodichloromethane	6.43	83	480979	63.16	ug/L		99
38) p-Dioxane	6.22	88	19478	437.34	ug/L	#	81
39) Dibromomethane	6.19	174	257433	63.30	ug/L		84
41) 4-Methyl-2-Pentanone	7.16	43	314172	53.04	ug/L		94
42) cis-1,3-Dichloropropene	6.95	75	351568	52.68	ug/L		96
44) Toluene	7.34	91	759972	58.15	ug/L		98
45) trans-1,3-Dichloropropene	7.68	75	415870	56.03	ug/L		96
46) 1,1,2-Trichloroethane	7.92	97	193311	54.32	ug/L		97
47) 2-Hexanone	8.20	43	249164	51.11	ug/L		87
48) 1,3-Dichloropropane	8.09	76	312929	63.00	ug/L		100
49) Tetrachloroethene	7.98	166	345526	61.76	ug/L		99

(#) = qualifier out of range (m) = manual integration
4V27839.D 0609VO4.M Wed Jun 21 17:14:38 2017 SS Page 1

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27839.D Vial: 80
Acq On : 20 Jun 2017 22:55 Operator: sdp
Sample : B7F2163-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

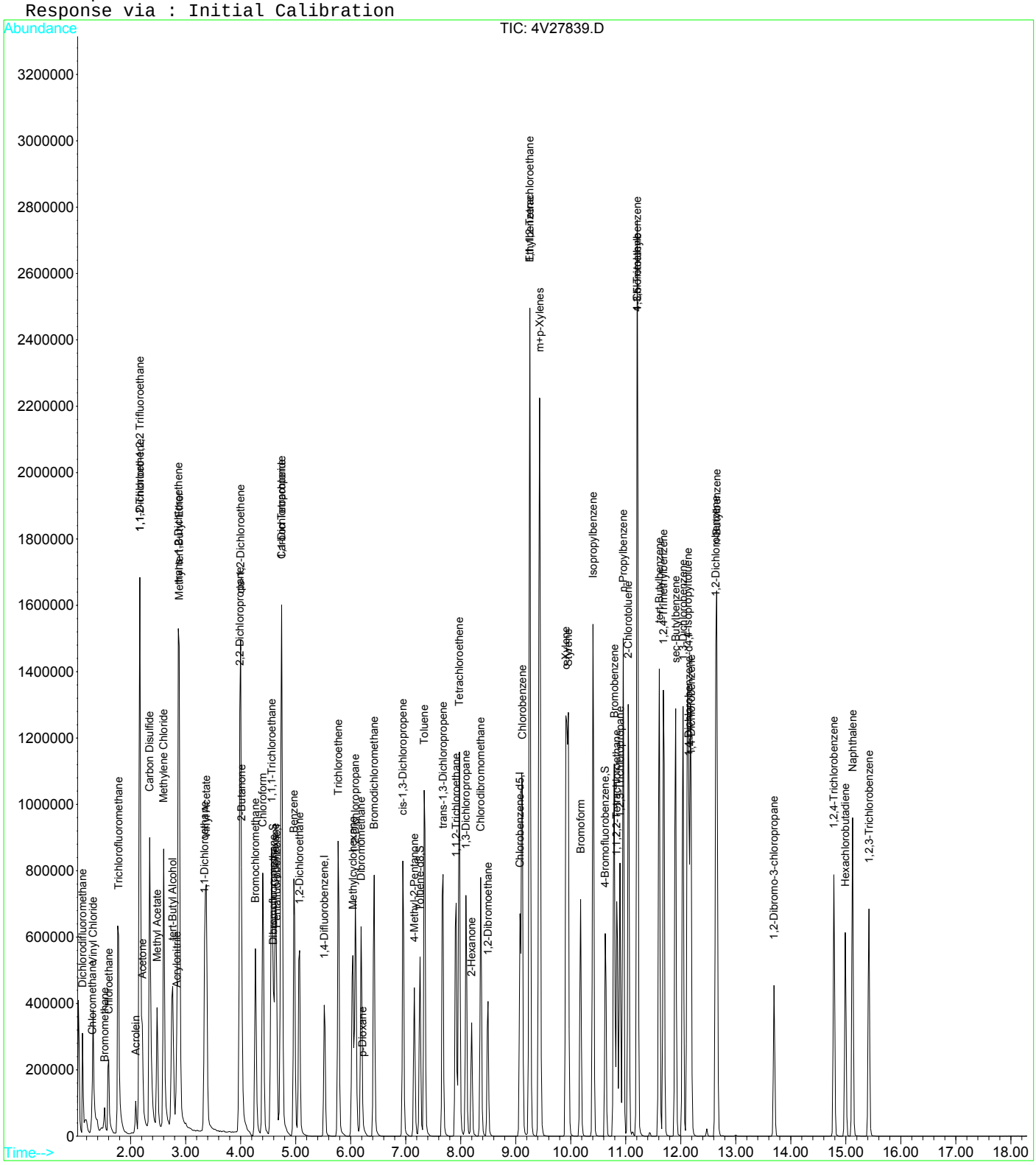
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	409448	69.11	ug/L		100
51)	1,2-Dibromoethane	8.50	107	270634	62.48	ug/L	#	61
53)	Chlorobenzene	9.12	112	599144	54.21	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.26	131	337916	59.13	ug/L		91
55)	Ethylbenzene	9.26	91	1004326	56.21	ug/L		100
56)	m+p-Xylenes	9.44	106	723078	108.51	ug/L		86
57)	o-Xylene	9.91	91	886471	60.84	ug/L		90
58)	Styrene	9.96	104	602460	57.53	ug/L		92
59)	Isopropylbenzene	10.40	105	1053420	53.12	ug/L	#	92
60)	Bromoform	10.18	173	333058	53.74	ug/L		99
61)	1,1,2,2-Tetrachloroethane	10.83	83	275589	55.51	ug/L		98
63)	1,2,3-Trichloropropane	10.89	110	132880	58.89	ug/L		96
64)	n-Propylbenzene	10.95	91	1101077	57.83	ug/L	#	89
65)	Bromobenzene	10.79	77	407306	58.45	ug/L	#	43
66)	2-Chlorotoluene	11.04	91	739404	56.10	ug/L	#	89
67)	4-Chlorotoluene	11.21	91	920075	57.54	ug/L	#	82
68)	1,3,5-Trimethylbenzene	11.21	105	869559	58.38	ug/L		93
69)	tert-Butylbenzene	11.61	119	717156	61.05	ug/L		91
70)	1,2,4-Trimethylbenzene	11.68	105	873992	60.27	ug/L		86
71)	sec-Butylbenzene	11.91	105	915143	59.07	ug/L		93
72)	4-Isopropyltoluene	12.13	119	853202	58.80	ug/L		95
73)	1,3-Dichlorobenzene	12.04	146	539458	57.47	ug/L		96
75)	1,4-Dichlorobenzene	12.19	146	543443	53.06	ug/L		91
76)	n-Butylbenzene	12.65	91	652406	53.47	ug/L		98
77)	1,2-Dichlorobenzene	12.64	146	505617	54.94	ug/L		96
78)	1,2-Dibromo-3-chloropropan	13.69	75	127009	55.92	ug/L		87
79)	1,2,4-Trichlorobenzene	14.78	180	273023	54.63	ug/L		97
80)	Hexachlorobutadiene	14.99	225	158838	50.77	ug/L		93
81)	Naphthalene	15.12	128	805066	55.66	ug/L		96
82)	1,2,3-Trichlorobenzene	15.42	180	245709	53.87	ug/L		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27839.D Vial: 80
Acq On : 20 Jun 2017 22:55 Operator: sdp
Sample : B7F2163-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27839.D 0609VO4.M Wed Jun 21 17:14:38 2017 SS Page 3

Volatile Organics - GC/MS - Quality Control
Aqua Pro-Tech Laboratories

Batch B7F2163 **Method: SW 846 8260B** **Prepared: 06/20/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2163-MSD1	7060508-03	Benzene	56.3	ug/L	50.0	0.00	113	70-130	3.51	20
B7F2163-MSD1	7060508-03	EthylBenzene	56.7	ug/L	50.0	0.00	113	70-130	0.817	20
B7F2163-MSD1	7060508-03	m+p-Xylenes	110	ug/L	100	0.00	110	70-130	1.05	20
B7F2163-MSD1	7060508-03	Methyl tert-Butyl Ether	62.8	ug/L	50.0	0.00	126	70-130	5.30	20
B7F2163-MSD1	7060508-03	o-Xylene	58.2	ug/L	50.0	0.00	116	70-130	4.46	20
B7F2163-MSD1	7060508-03	Toluene	55.4	ug/L	50.0	0.00	111	70-130	4.79	20

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27840.D Vial: 81
Acq On : 20 Jun 2017 23:20 Operator: sdp
Sample : B7F2163-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.65	168	287010	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.52	114	338216	30.00	ug/L		-0.01
52) Chlorobenzene-d5	9.08	82	187577	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	238124	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.60	113	180576	33.06	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 110.20%				
43) Toluene-d8	7.26	98	344043	30.68	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.27%				
62) 4-Bromofluorobenzene	10.63	95	191954	30.54	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	282852	50.87	ug/L		99
3) Chloromethane	1.32	50	175692	49.54	ug/L		99
4) Acrolein	2.09	56	67122	50.48	ug/L		98
5) Vinyl Chloride	1.32	62	268531	58.01	ug/L		97
6) Bromomethane	1.53	94	60877m	37.47	ug/L		
7) Chloroethane	1.60	64	214619	66.28	ug/L		97
8) Trichlorofluoromethane	1.77	101	640193	64.10	ug/L		99
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	375800	59.37	ug/L		85
10) Acetone	2.21	43	424790	86.51	ug/L		84
11) 1,1-Dichloroethene	2.15	61	577337	62.04	ug/L		99
12) tert-Butyl Alcohol	2.76	59	645490	525.52	ug/L		97
13) Methyl Acetate	2.48	43	506403	53.41	ug/L	#	84
14) Methylene Chloride	2.60	84	347996	57.77	ug/L		95
15) Carbon Disulfide	2.35	76	965076	59.30	ug/L		98
16) Acrylonitrile	2.84	53	228876	63.66	ug/L		96
17) Methyl tert-Butyl Ether	2.88	73	931272	62.76	ug/L		93
18) trans-1,2-Dichloroethene	2.87	61	542803	63.03	ug/L		97
19) 1,1-Dichloroethane	3.34	63	674821	63.28	ug/L		97
20) Vinyl Acetate	3.37	43	1068524	59.53	ug/L		93
21) 2-Butanone	4.01	43	377821	58.45	ug/L		98
22) 2,2-Dichloropropane	3.98	77	501051	56.36	ug/L		96
23) cis-1,2-Dichloroethene	4.00	61	624085	61.54	ug/L		97
24) Chloroform	4.40	83	600878	57.76	ug/L		99
25) Bromochloromethane	4.27	49	338031	56.29	ug/L	#	61
27) Cyclohexane	4.62	56	223415	46.26	ug/L	#	73
28) 1,1,1-Trichloroethane	4.57	97	619319	60.69	ug/L		97
29) 1,1-Dichloropropene	4.74	75	351720	57.71	ug/L		97
30) Carbon Tetrachloride	4.73	117	618274	62.48	ug/L		100
31) 1,2-Dichloroethane	5.07	62	645375	63.18	ug/L		99
32) Benzene	4.97	78	660626	56.35	ug/L		97
34) Trichloroethene	5.77	130	279147	58.63	ug/L		95
35) Methylcyclohexane	6.04	83	219267	46.39	ug/L		97
36) 1,2-Dichloropropane	6.08	63	161756	55.63	ug/L		98
37) Bromodichloromethane	6.43	83	483797	60.75	ug/L		100
38) p-Dioxane	6.22	88	19916	427.57	ug/L	#	76
39) Dibromomethane	6.19	174	266939	62.76	ug/L		84
41) 4-Methyl-2-Pentanone	7.16	43	323281	52.18	ug/L		93
42) cis-1,3-Dichloropropene	6.95	75	360378	51.64	ug/L		99
44) Toluene	7.34	91	757629	55.43	ug/L		99
45) trans-1,3-Dichloropropene	7.68	75	424959	54.75	ug/L		96
46) 1,1,2-Trichloroethane	7.92	97	199035	53.48	ug/L		94
47) 2-Hexanone	8.20	43	270428	53.04	ug/L		86
48) 1,3-Dichloropropane	8.10	76	313954	60.43	ug/L		97
49) Tetrachloroethene	7.98	166	348028	59.48	ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27840.D Vial: 81
Acq On : 20 Jun 2017 23:20 Operator: sdp
Sample : B7F2163-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

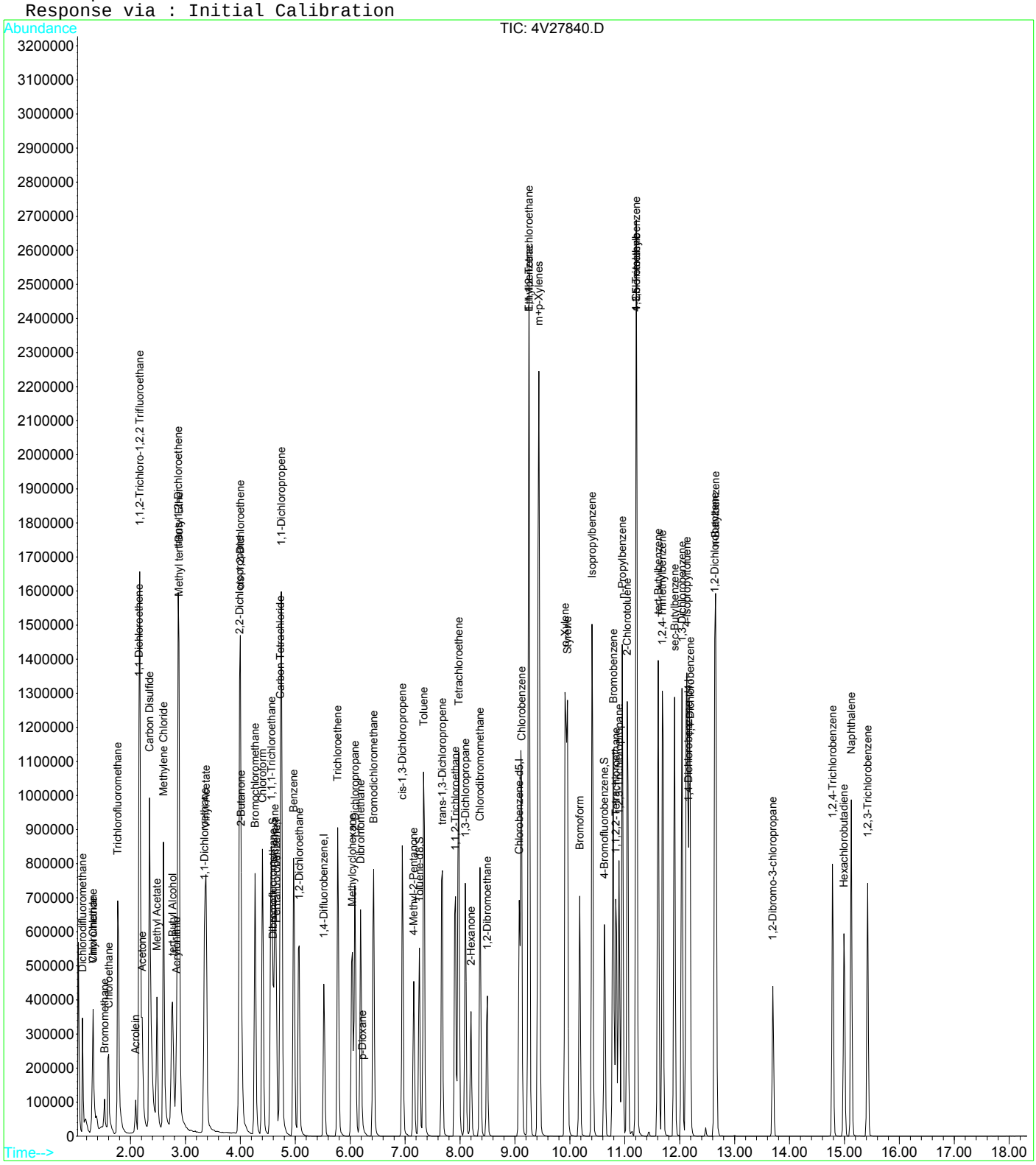
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	408541	65.93	ug/L		99
51)	1,2-Dibromoethane	8.50	107	272386	60.13	ug/L	#	64
53)	Chlorobenzene	9.12	112	599338	52.61	ug/L		97
54)	1,1,1,2-Tetrachloroethane	9.26	131	339575	57.65	ug/L		91
55)	Ethylbenzene	9.26	91	1043710	56.67	ug/L		97
56)	m+p-Xylenes	9.44	106	753178	109.65	ug/L		90
57)	o-Xylene	9.91	91	873861	58.19	ug/L		92
58)	Styrene	9.96	104	601884	55.76	ug/L		93
59)	Isopropylbenzene	10.40	105	1040905	50.92	ug/L	#	90
60)	Bromoform	10.18	173	329237	51.53	ug/L		97
61)	1,1,2,2-Tetrachloroethane	10.84	83	274333	53.61	ug/L		100
63)	1,2,3-Trichloropropane	10.89	110	132649	57.03	ug/L		99
64)	n-Propylbenzene	10.95	91	1089845	55.53	ug/L	#	89
65)	Bromobenzene	10.79	77	411756	57.32	ug/L	#	40
66)	2-Chlorotoluene	11.04	91	736810	54.24	ug/L	#	87
67)	4-Chlorotoluene	11.21	91	903834	54.84	ug/L	#	81
68)	1,3,5-Trimethylbenzene	11.21	105	875808	57.05	ug/L		91
69)	tert-Butylbenzene	11.61	119	715788	59.11	ug/L		89
70)	1,2,4-Trimethylbenzene	11.68	105	856106	57.27	ug/L		87
71)	sec-Butylbenzene	11.91	105	909343	56.94	ug/L		93
72)	4-Isopropyltoluene	12.13	119	858713	57.42	ug/L		96
73)	1,3-Dichlorobenzene	12.04	146	545899	56.42	ug/L		99
75)	1,4-Dichlorobenzene	12.19	146	550427	53.20	ug/L		91
76)	n-Butylbenzene	12.65	91	648998	52.65	ug/L		98
77)	1,2-Dichlorobenzene	12.64	146	507177	54.55	ug/L		98
78)	1,2-Dibromo-3-chloropropan	13.69	75	128504	56.01	ug/L		89
79)	1,2,4-Trichlorobenzene	14.78	180	270638	53.60	ug/L		93
80)	Hexachlorobutadiene	14.99	225	167650	53.04	ug/L		93
81)	Naphthalene	15.12	128	809557	55.40	ug/L		96
82)	1,2,3-Trichlorobenzene	15.42	180	255661	55.48	ug/L		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27840.D Vial: 81
Acq On : 20 Jun 2017 23:20 Operator: sdp
Sample : B7F2163-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:48 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Volatile Organics - GC/MS - Quality Control
Aqua Pro-Tech Laboratories

Batch B7F2331 **Method: SW 846 8260B** **Prepared: 06/22/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2331-BS1		Benzene	50.8	ug/L	50.0		102	70-130		
B7F2331-BS1		EthylBenzene	52.5	ug/L	50.0		105	70-130		
B7F2331-BS1		m+p-Xylenes	100	ug/L	100		100	70-130		
B7F2331-BS1		Methyl tert-Butyl Ether	58.4	ug/L	50.0		117	70-130		
B7F2331-BS1		o-Xylene	54.5	ug/L	50.0		109	70-130		
B7F2331-BS1		Toluene	51.6	ug/L	50.0		103	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27846.D Vial: 4
Acq On : 22 Jun 2017 13:36 Operator: sdp
Sample : B7F2331-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:37 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.64	168	283720	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.52	114	324752	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.07	82	181028	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	226368	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.59	113	171300	31.72	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 105.73%				
43) Toluene-d8	7.25	98	329867	30.64	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.13%				
62) 4-Bromofluorobenzene	10.63	95	187159	30.86	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.87%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.12	85	273016m	49.67	ug/L		
3) Chloromethane	1.31	50	180508	51.49	ug/L		93
4) Acrolein	2.08	56	67526	51.37	ug/L		98
5) Vinyl Chloride	1.31	62	266677	58.27	ug/L		96
6) Bromomethane	1.52	94	61796m	38.53	ug/L		
7) Chloroethane	1.59	64	185967	56.04	ug/L		99
8) Trichlorofluoromethane	1.77	101	620241	62.83	ug/L		99
9) 1,1,2-Trichloro-1,2,2 Trif	2.16	101	369566	59.07	ug/L	#	81
10) Acetone	2.20	43	336672m	69.36	ug/L		
11) 1,1-Dichloroethene	2.16	61	552952	60.10	ug/L		82
12) tert-Butyl Alcohol	2.75	59	708366m	583.40	ug/L		
13) Methyl Acetate	2.47	43	511944	54.62	ug/L	#	83
14) Methylene Chloride	2.59	84	328843	55.22	ug/L		94
15) Carbon Disulfide	2.34	76	939526	58.40	ug/L		98
16) Acrylonitrile	2.83	53	233953	65.83	ug/L		94
17) Methyl tert-Butyl Ether	2.87	73	856300	58.37	ug/L		93
18) trans-1,2-Dichloroethene	2.86	61	503553	59.15	ug/L		96
19) 1,1-Dichloroethane	3.33	63	632368	59.99	ug/L		98
20) Vinyl Acetate	3.36	43	1009622	56.91	ug/L		93
21) 2-Butanone	4.02	43	367276	57.48	ug/L		99
22) 2,2-Dichloropropane	3.97	77	515824	58.69	ug/L		97
23) cis-1,2-Dichloroethene	3.99	61	582799	58.14	ug/L		97
24) Chloroform	4.39	83	552854	53.76	ug/L		97
25) Bromochloromethane	4.26	49	332691	56.04	ug/L	#	63
27) Cyclohexane	4.62	56	209834	43.95	ug/L	#	72
28) 1,1,1-Trichloroethane	4.56	97	575418	57.04	ug/L		98
29) 1,1-Dichloropropene	4.73	75	321665	53.39	ug/L		98
30) Carbon Tetrachloride	4.73	117	576975	58.99	ug/L		99
31) 1,2-Dichloroethane	5.06	62	599187	59.33	ug/L		99
32) Benzene	4.97	78	588564	50.78	ug/L		97
34) Trichloroethene	5.78	130	255946	55.98	ug/L		95
35) Methylcyclohexane	6.03	83	211229	46.54	ug/L		97
36) 1,2-Dichloropropane	6.09	63	144576	51.78	ug/L		95
37) Bromodichloromethane	6.42	83	436923	57.13	ug/L		99
38) p-Dioxane	6.22	88	24360	544.66	ug/L	#	60
39) Dibromomethane	6.19	174	231648	56.72	ug/L		85
41) 4-Methyl-2-Pentanone	7.15	43	291410	48.99	ug/L		93
42) cis-1,3-Dichloropropene	6.95	75	317611	47.40	ug/L		98
44) Toluene	7.34	91	676729	51.56	ug/L		99
45) trans-1,3-Dichloropropene	7.67	75	376056	50.46	ug/L		95
46) 1,1,2-Trichloroethane	7.91	97	174483	48.83	ug/L		95
47) 2-Hexanone	8.19	43	250896	51.25	ug/L		82
48) 1,3-Dichloropropane	8.10	76	277857	55.70	ug/L		95
49) Tetrachloroethene	7.97	166	321480	57.22	ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27846.D Vial: 4
Acq On : 22 Jun 2017 13:36 Operator: sdp
Sample : B7F2331-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:37 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

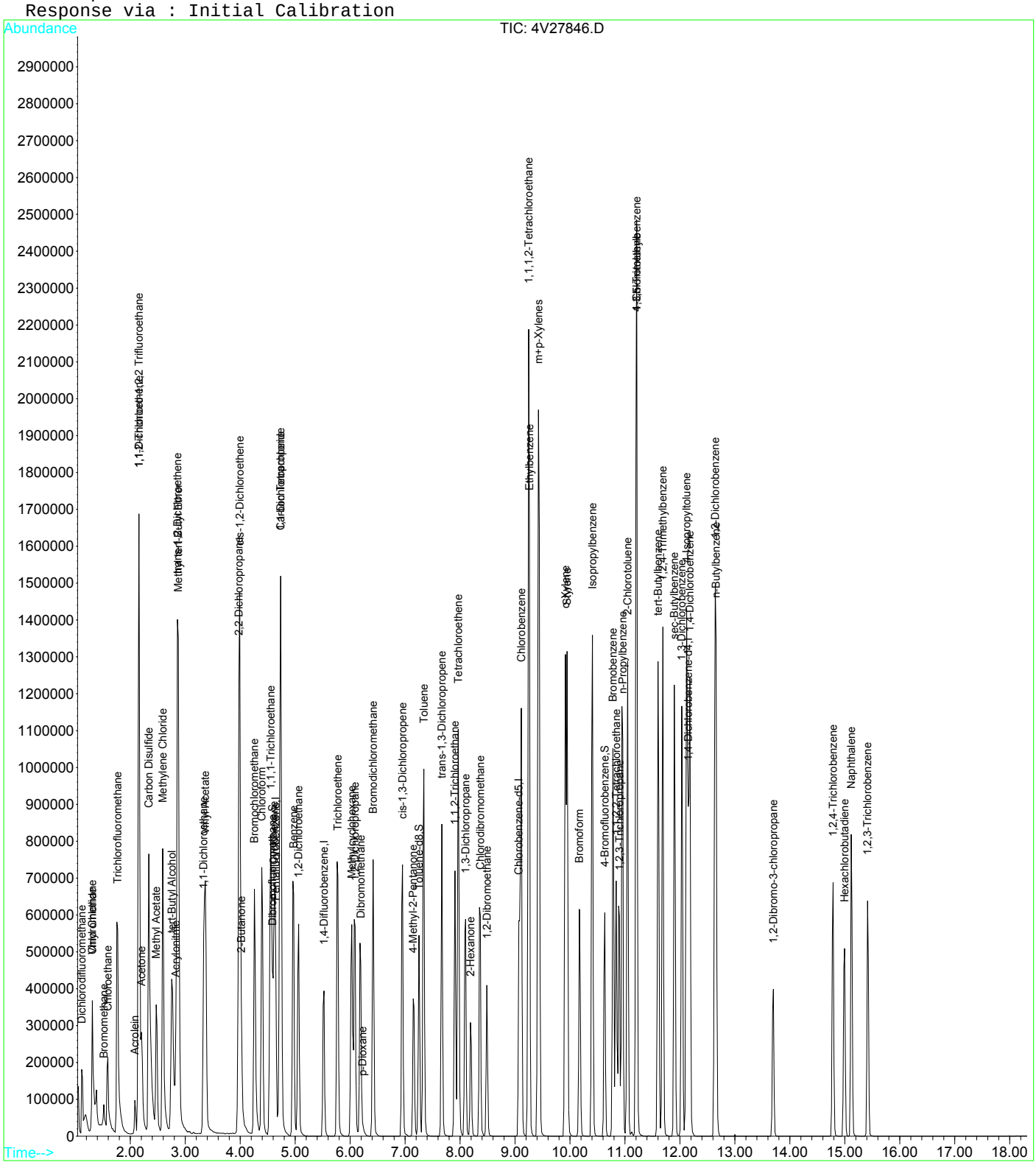
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.37	129	368741	61.97	ug/L		99
51)	1,2-Dibromoethane	8.49	107	246509	56.67	ug/L	#	58
53)	Chlorobenzene	9.11	112	529149	48.13	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.25	131	300950	52.94	ug/L		91
55)	Ethylbenzene	9.26	91	933833	52.54	ug/L		100
56)	m+p-Xylenes	9.43	106	663336	100.07	ug/L		86
57)	o-Xylene	9.92	91	789480	54.47	ug/L		94
58)	Styrene	9.95	104	548028	52.61	ug/L		88
59)	Isopropylbenzene	10.41	105	949670	48.14	ug/L		95
60)	Bromoform	10.17	173	296421	48.08	ug/L		97
61)	1,1,2,2-Tetrachloroethane	10.84	83	248759	50.37	ug/L		99
63)	1,2,3-Trichloropropane	10.90	110	121973	54.34	ug/L		93
64)	n-Propylbenzene	10.96	91	1011949	53.43	ug/L	#	88
65)	Bromobenzene	10.78	77	368480	53.15	ug/L		70
66)	2-Chlorotoluene	11.05	91	683530	52.14	ug/L	#	85
67)	4-Chlorotoluene	11.21	91	842431	52.96	ug/L	#	92
68)	1,3,5-Trimethylbenzene	11.21	105	805640	54.38	ug/L		97
69)	tert-Butylbenzene	11.60	119	678441	58.06	ug/L		84
70)	1,2,4-Trimethylbenzene	11.69	105	794573	55.08	ug/L		91
71)	sec-Butylbenzene	11.90	105	853870	55.40	ug/L		95
72)	4-Isopropyltoluene	12.12	119	815413	56.49	ug/L	#	93
73)	1,3-Dichlorobenzene	12.03	146	490026	52.48	ug/L		96
75)	1,4-Dichlorobenzene	12.18	146	507321	51.58	ug/L		98
76)	n-Butylbenzene	12.66	91	626830	53.49	ug/L		97
77)	1,2-Dichlorobenzene	12.64	146	458978	51.93	ug/L		95
78)	1,2-Dibromo-3-chloropropan	13.70	75	127417	58.42	ug/L		87
79)	1,2,4-Trichlorobenzene	14.79	180	255273	53.18	ug/L		97
80)	Hexachlorobutadiene	15.00	225	152226	50.67	ug/L		94
81)	Naphthalene	15.11	128	719278	51.78	ug/L		96
82)	1,2,3-Trichlorobenzene	15.41	180	230007	52.51	ug/L		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27846.D Vial: 4
Acq On : 22 Jun 2017 13:36 Operator: sdp
Sample : B7F2331-BS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:37 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Batch B7F2331 **Method: SW 846 8260B** **Prepared: 06/23/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2331-MS1	7060725-01	Benzene	56.9	ug/L	50.0	0.00	114	70-130		
B7F2331-MS1	7060725-01	EthylBenzene	54.1	ug/L	50.0	0.00	108	70-130		
B7F2331-MS1	7060725-01	m+p-Xylenes	109	ug/L	100	0.00	109	70-130		
B7F2331-MS1	7060725-01	Methyl tert-Butyl Ether	53.5	ug/L	50.0	0.00	107	70-130		
B7F2331-MS1	7060725-01	o-Xylene	53.5	ug/L	50.0	0.00	107	70-130		
B7F2331-MS1	7060725-01	Toluene	63.1	ug/L	50.0	0.00	126	70-130		

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27871.D Vial: 29
Acq On : 23 Jun 2017 00:17 Operator: sdp
Sample : B7F2331-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.65	168	295582	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.53	114	390053	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.08	82	203371	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	245844	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.60	113	179164	31.85	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 106.17%				
43) Toluene-d8	7.26	98	388430	30.04	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.13%				
62) 4-Bromofluorobenzene	10.64	95	205420	30.15	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	140120m	24.47	ug/L		
3) Chloromethane	1.32	50	151631m	41.52	ug/L		
4) Acrolein	2.09	56	68432	49.97	ug/L		88
5) Vinyl Chloride	1.32	62	207984	43.63	ug/L		96
6) Bromomethane	1.53	94	39779m	23.35	ug/L		
7) Chloroethane	1.59	64	137155	37.25	ug/L		92
8) Trichlorofluoromethane	1.77	101	470719	45.77	ug/L		96
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	300856	46.15	ug/L	#	78
10) Acetone	2.21	43	299183	59.16	ug/L		89
11) 1,1-Dichloroethene	2.15	61	457117	47.69	ug/L		97
12) tert-Butyl Alcohol	2.76	59	717768m	567.42	ug/L		
13) Methyl Acetate	2.48	43	453294	46.42	ug/L	#	82
14) Methylene Chloride	2.60	84	301727	48.63	ug/L		91
15) Carbon Disulfide	2.35	76	726286	43.33	ug/L		98
16) Acrylonitrile	2.84	53	225366	60.87	ug/L		98
17) Methyl tert-Butyl Ether	2.88	73	818130	53.53	ug/L		91
18) trans-1,2-Dichloroethene	2.87	61	435546	49.11	ug/L		99
19) 1,1-Dichloroethane	3.34	63	569729	51.88	ug/L		94
20) Vinyl Acetate	3.37	43	879336	47.57	ug/L		94
21) 2-Butanone	4.03	43	396627	59.58	ug/L		98
22) 2,2-Dichloropropane	3.98	77	383873	41.93	ug/L		97
23) cis-1,2-Dichloroethene	4.00	61	628993	60.23	ug/L		92
24) Chloroform	4.40	83	607556	56.70	ug/L		99
25) Bromochloromethane	4.27	49	331569	53.61	ug/L	#	68
27) Cyclohexane	4.63	56	242950	48.85	ug/L	#	77
28) 1,1,1-Trichloroethane	4.57	97	548723	52.21	ug/L		98
29) 1,1-Dichloropropene	4.74	75	336845	53.66	ug/L		98
30) Carbon Tetrachloride	4.73	117	529745	51.98	ug/L		100
31) 1,2-Dichloroethane	5.07	62	583470	55.46	ug/L		98
32) Benzene	4.97	78	686934	56.89	ug/L		97
34) Trichloroethene	5.79	130	328374	59.80	ug/L		95
35) Methylcyclohexane	6.04	83	249023	45.68	ug/L		95
36) 1,2-Dichloropropane	6.08	63	176405	52.61	ug/L		97
37) Bromodichloromethane	6.43	83	451223	49.13	ug/L		100
38) p-Dioxane	6.23	88	34516	642.53	ug/L	#	81
39) Dibromomethane	6.19	174	242491	49.43	ug/L		85
41) 4-Methyl-2-Pentanone	7.16	43	362028	50.67	ug/L		97
42) cis-1,3-Dichloropropene	6.96	75	365911	45.46	ug/L		97
44) Toluene	7.35	91	994981	63.12	ug/L		99
45) trans-1,3-Dichloropropene	7.68	75	421320	47.07	ug/L		96
46) 1,1,2-Trichloroethane	7.92	97	208505	48.58	ug/L		98
47) 2-Hexanone	8.20	43	293839	49.97	ug/L		92
48) 1,3-Dichloropropane	8.11	76	320812	53.54	ug/L		99
49) Tetrachloroethene	7.98	166	438899	65.04	ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27871.D Vial: 29
Acq On : 23 Jun 2017 00:17 Operator: sdp
Sample : B7F2331-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

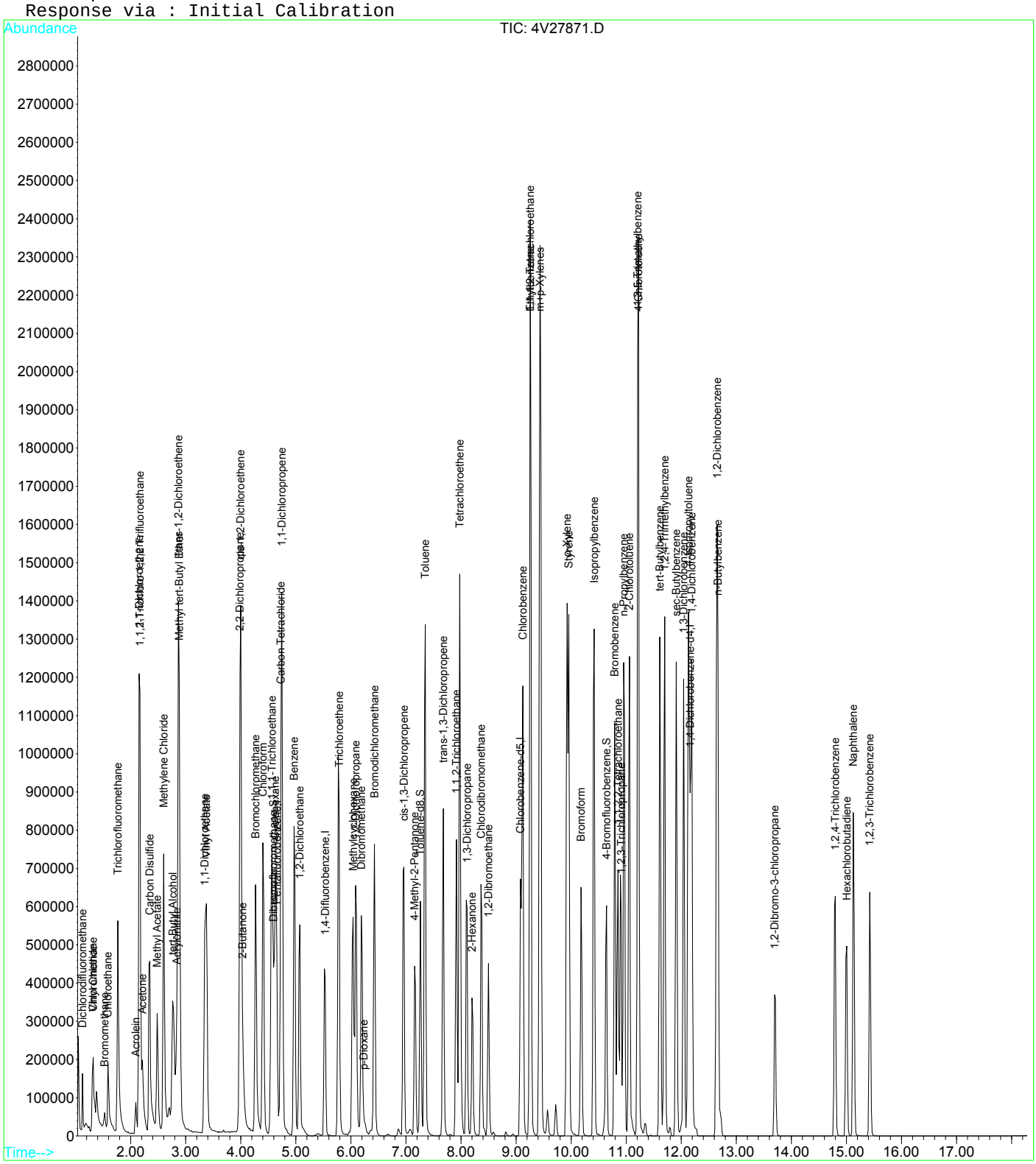
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	382218	53.49	ug/L		99
51)	1,2-Dibromoethane	8.50	107	270484	51.77	ug/L	#	77
53)	Chlorobenzene	9.12	112	609165	49.32	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.26	131	298277	46.70	ug/L		93
55)	Ethylbenzene	9.26	91	1080639	54.12	ug/L		98
56)	m+p-Xylenes	9.44	106	815104	109.45	ug/L		95
57)	o-Xylene	9.93	91	870549	53.47	ug/L		99
58)	Styrene	9.96	104	607307	51.90	ug/L		91
59)	Isopropylbenzene	10.42	105	1019290	45.99	ug/L		97
60)	Bromoform	10.18	173	303906	43.88	ug/L		96
61)	1,1,2,2-Tetrachloroethane	10.85	83	279030	50.29	ug/L		98
63)	1,2,3-Trichloropropane	10.91	110	127647	50.62	ug/L		98
64)	n-Propylbenzene	10.95	91	1086547	51.06	ug/L	#	91
65)	Bromobenzene	10.79	77	400494	51.42	ug/L	#	69
66)	2-Chlorotoluene	11.06	91	765101	51.95	ug/L		88
67)	4-Chlorotoluene	11.22	91	888316	49.71	ug/L	#	91
68)	1,3,5-Trimethylbenzene	11.21	105	851610	51.17	ug/L		89
69)	tert-Butylbenzene	11.61	119	689089	52.49	ug/L		88
70)	1,2,4-Trimethylbenzene	11.70	105	833275	51.42	ug/L		90
71)	sec-Butylbenzene	11.91	105	877292	50.67	ug/L		94
72)	4-Isopropyltoluene	12.13	119	844819	52.10	ug/L		96
73)	1,3-Dichlorobenzene	12.04	146	521802	49.74	ug/L		98
75)	1,4-Dichlorobenzene	12.19	146	543622	50.89	ug/L		93
76)	n-Butylbenzene	12.67	91	653287	51.34	ug/L		97
77)	1,2-Dichlorobenzene	12.65	146	548526	57.15	ug/L		92
78)	1,2-Dibromo-3-chloropropan	13.70	75	129519	54.68	ug/L		75
79)	1,2,4-Trichlorobenzene	14.80	180	260047	49.89	ug/L		95
80)	Hexachlorobutadiene	15.01	225	153939	47.18	ug/L		91
81)	Naphthalene	15.12	128	765793	50.76	ug/L		96
82)	1,2,3-Trichlorobenzene	15.42	180	238085	50.05	ug/L		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27871.D Vial: 29
Acq On : 23 Jun 2017 00:17 Operator: sdp
Sample : B7F2331-MS1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Volatile Organics - GC/MS - Quality Control
Aqua Pro-Tech Laboratories

Batch B7F2331 **Method: SW 846 8260B** **Prepared: 06/23/2017**

Lab Number	Source	Analyte	Result	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
B7F2331-MSD1	7060725-01	Benzene	56.2	ug/L	50.0	0.00	112	70-130	1.27	20
B7F2331-MSD1	7060725-01	EthylBenzene	53.9	ug/L	50.0	0.00	108	70-130	0.443	20
B7F2331-MSD1	7060725-01	m+p-Xylenes	105	ug/L	100	0.00	105	70-130	4.17	20
B7F2331-MSD1	7060725-01	Methyl tert-Butyl Ether	55.4	ug/L	50.0	0.00	111	70-130	3.37	20
B7F2331-MSD1	7060725-01	o-Xylene	54.7	ug/L	50.0	0.00	109	70-130	2.34	20
B7F2331-MSD1	7060725-01	Toluene	54.8	ug/L	50.0	0.00	110	70-130	14.1	20

* - Outside of QC Limits

NC - Outside the recovery criteria but Spike Amount <1/4 amount found in Source Sample

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27872.D Vial: 30
Acq On : 23 Jun 2017 00:42 Operator: sdp
Sample : B7F2331-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.66	168	295375	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.52	114	369132	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.08	82	192500	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	226463	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.59	113	172564	30.70	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.33%				
43) Toluene-d8	7.27	98	360078	29.42	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.07%				
62) 4-Bromofluorobenzene	10.63	95	196235	30.42	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	117641m	20.56	ug/L		
3) Chloromethane	1.32	50	148069m	40.57	ug/L		
4) Acrolein	2.10	56	69374	50.70	ug/L		91
5) Vinyl Chloride	1.31	62	214090	44.94	ug/L		90
6) Bromomethane	1.52	94	50181m	29.71	ug/L		
7) Chloroethane	1.59	64	139015	37.86	ug/L		96
8) Trichlorofluoromethane	1.77	101	476125	46.33	ug/L		97
9) 1,1,2-Trichloro-1,2,2 Trif	2.16	101	307020	47.13	ug/L		95
10) Acetone	2.22	43	356059	70.46	ug/L		88
11) 1,1-Dichloroethene	2.16	61	466854	48.74	ug/L		90
12) tert-Butyl Alcohol	2.77	59	711487m	562.84	ug/L		
13) Methyl Acetate	2.49	43	461819	47.33	ug/L		87
14) Methylene Chloride	2.61	84	310633	50.10	ug/L		96
15) Carbon Disulfide	2.34	76	743302	44.38	ug/L		100
16) Acrylonitrile	2.84	53	232235	62.77	ug/L		94
17) Methyl tert-Butyl Ether	2.89	73	845614	55.37	ug/L		91
18) trans-1,2-Dichloroethene	2.87	61	442141	49.89	ug/L		93
19) 1,1-Dichloroethane	3.35	63	581392	52.97	ug/L		95
20) Vinyl Acetate	3.38	43	900508	48.75	ug/L		93
21) 2-Butanone	4.02	43	381049	57.28	ug/L		99
22) 2,2-Dichloropropane	3.99	77	379753	41.51	ug/L		97
23) cis-1,2-Dichloroethene	3.99	61	585143	56.07	ug/L		93
24) Chloroform	4.41	83	568850	53.13	ug/L		98
25) Bromochloromethane	4.27	49	332292	53.76	ug/L		68
27) Cyclohexane	4.63	56	221925	44.65	ug/L	#	73
28) 1,1,1-Trichloroethane	4.56	97	555503	52.90	ug/L		97
29) 1,1-Dichloropropene	4.75	75	332430	53.00	ug/L		97
30) Carbon Tetrachloride	4.73	117	524567	51.51	ug/L		99
31) 1,2-Dichloroethane	5.06	62	589773	56.10	ug/L		98
32) Benzene	4.97	78	677806	56.18	ug/L		97
34) Trichloroethene	5.78	130	307617	59.20	ug/L		94
35) Methylcyclohexane	6.03	83	214193	41.52	ug/L		97
36) 1,2-Dichloropropane	6.09	63	169464	53.40	ug/L		99
37) Bromodichloromethane	6.43	83	445843	51.29	ug/L		98
38) p-Dioxane	6.27	88	28966	569.78	ug/L	#	70
39) Dibromomethane	6.19	174	252217	54.33	ug/L		82
41) 4-Methyl-2-Pentanone	7.16	43	345940	51.16	ug/L		94
42) cis-1,3-Dichloropropene	6.95	75	356726	46.83	ug/L		99
44) Toluene	7.34	91	817471	54.80	ug/L		99
45) trans-1,3-Dichloropropene	7.68	75	399802	47.19	ug/L		96
46) 1,1,2-Trichloroethane	7.92	97	203001	49.98	ug/L		98
47) 2-Hexanone	8.20	43	284712	51.16	ug/L		89
48) 1,3-Dichloropropane	8.10	76	325296	57.37	ug/L		95
49) Tetrachloroethene	7.98	166	387492	60.68	ug/L		96

(#) = qualifier out of range (m) = manual integration
4V27872.D 0609VO4.M Fri Jun 23 15:27:18 2017 SS Page 1

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27872.D Vial: 30
Acq On : 23 Jun 2017 00:42 Operator: sdp
Sample : B7F2331-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

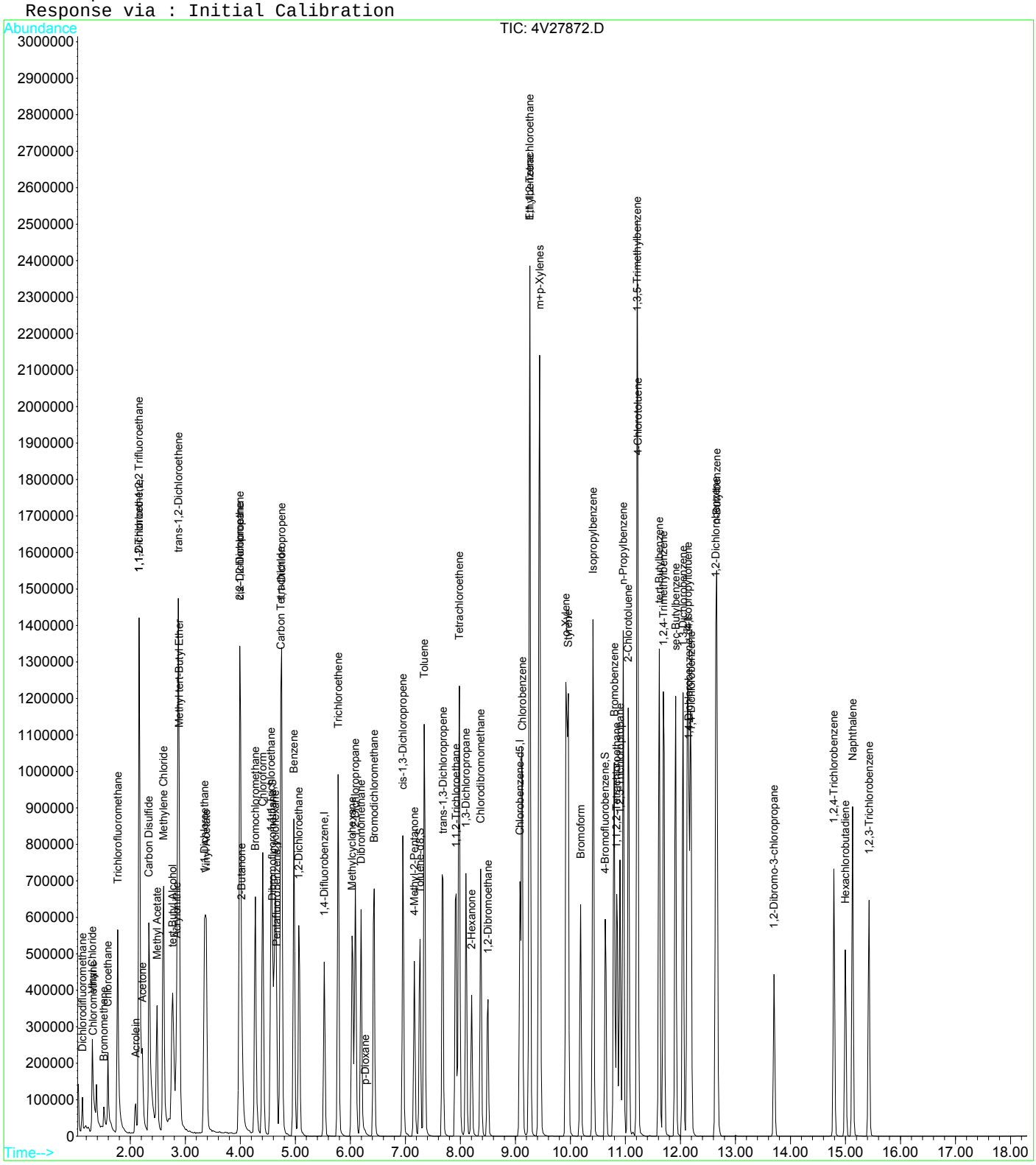
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.37	129	372222	55.04	ug/L		100
51)	1,2-Dibromoethane	8.50	107	269449	54.50	ug/L	#	74
53)	Chlorobenzene	9.13	112	595549	50.94	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.26	131	308155	50.98	ug/L		92
55)	Ethylbenzene	9.26	91	1018350	53.88	ug/L		97
56)	m+p-Xylenes	9.44	106	740040	104.98	ug/L		91
57)	o-Xylene	9.92	91	843495	54.73	ug/L		94
58)	Styrene	9.96	104	584692	52.79	ug/L		92
59)	Isopropylbenzene	10.41	105	1015547	48.41	ug/L		94
60)	Bromoform	10.19	173	309346	47.18	ug/L		98
61)	1,1,2,2-Tetrachloroethane	10.84	83	278137	52.96	ug/L		100
63)	1,2,3-Trichloropropane	10.90	110	127546	53.43	ug/L		100
64)	n-Propylbenzene	10.96	91	1065754	52.91	ug/L	#	91
65)	Bromobenzene	10.80	77	394160	53.47	ug/L	#	49
66)	2-Chlorotoluene	11.05	91	711516	51.04	ug/L	#	89
67)	4-Chlorotoluene	11.23	91	849334	50.21	ug/L		88
68)	1,3,5-Trimethylbenzene	11.21	105	821145	52.12	ug/L		95
69)	tert-Butylbenzene	11.62	119	685390	55.15	ug/L		90
70)	1,2,4-Trimethylbenzene	11.69	105	817081	53.26	ug/L		86
71)	sec-Butylbenzene	11.91	105	872302	53.23	ug/L		93
72)	4-Isopropyltoluene	12.14	119	816758	53.21	ug/L		97
73)	1,3-Dichlorobenzene	12.05	146	514335	51.80	ug/L		97
75)	1,4-Dichlorobenzene	12.20	146	515611	52.40	ug/L		90
76)	n-Butylbenzene	12.66	91	612543	52.25	ug/L		96
77)	1,2-Dichlorobenzene	12.64	146	509891	57.67	ug/L		98
78)	1,2-Dibromo-3-chloropropan	13.70	75	128609	58.94	ug/L		92
79)	1,2,4-Trichlorobenzene	14.79	180	258695	53.87	ug/L		95
80)	Hexachlorobutadiene	15.00	225	144913	48.21	ug/L		91
81)	Naphthalene	15.13	128	776791	55.90	ug/L		98
82)	1,2,3-Trichlorobenzene	15.43	180	227712	51.96	ug/L		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27872.D Vial: 30
Acq On : 23 Jun 2017 00:42 Operator: sdp
Sample : B7F2331-MSD1 Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 14:46 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27872.D 0609VO4.M Fri Jun 23 15:27:19 2017 SS Page 3

VOLATILE METHOD BLANK SUMMARY

Batch ID: **B7F2163** **Instrument:** GCMS-4

Sequence ID: S7F2120

Lab Number	Sample ID	Analyzed	File ID
B7F2163-BLK1	BLK1	06/20/2017 12:21	4V27814.D
B7F2163-BS1	BS1	06/20/2017 11:56	4V27813.D
B7F2163-MS1	MS1	06/20/2017 22:55	4V27839.D
B7F2163-MSD1	MSD1	06/20/2017 23:20	4V27840.D
7060508-01	MW-1-20170613	06/20/2017 14:27	4V27819.D
7060508-02	Dup-20170613	06/20/2017 14:53	4V27820.D
7060508-03	MW-7S-20170613	06/20/2017 15:18	4V27821.D
7060508-04	MW-7D-20170613	06/20/2017 15:44	4V27822.D
7060508-05	MW-8S-20170613	06/20/2017 16:09	4V27823.D
7060508-06	MW-8D-20170613	06/20/2017 16:35	4V27824.D
7060508-07	MW-4S-20170614	06/20/2017 17:00	4V27825.D
7060508-08	MW-4D-20170614	06/20/2017 17:26	4V27826.D
7060508-09	MW-3-20170614	06/20/2017 17:52	4V27827.D
7060508-10	MW-9S-20170614	06/20/2017 18:18	4V27828.D

Batch ID: **B7F2331** **Instrument:** GCMS-4

Sequence ID: S7F2615

Lab Number	Sample ID	Analyzed	File ID
B7F2331-BLK1	BLK1	06/22/2017 14:02	4V27847.D
B7F2331-BS1	BS1	06/22/2017 13:36	4V27846.D
B7F2331-MS1	MS1	06/23/2017 0:17	4V27871.D
B7F2331-MSD1	MSD1	06/23/2017 0:42	4V27872.D
7060508-11	FB-20170614	06/22/2017 16:37	4V27853.D
7060508-12	MW-9D-20170614	06/22/2017 17:02	4V27854.D
7060508-13	Trip Blank-20170614	06/22/2017 16:11	4V27852.D

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-4	Project:	Patchogue
Sequence:	S7F1212		

Lab Sample ID:	**S7F1212-TUN1**	Injection Date:	06/09/2017	Injection Time:	11:36
Lab File ID:	4V27720.D				

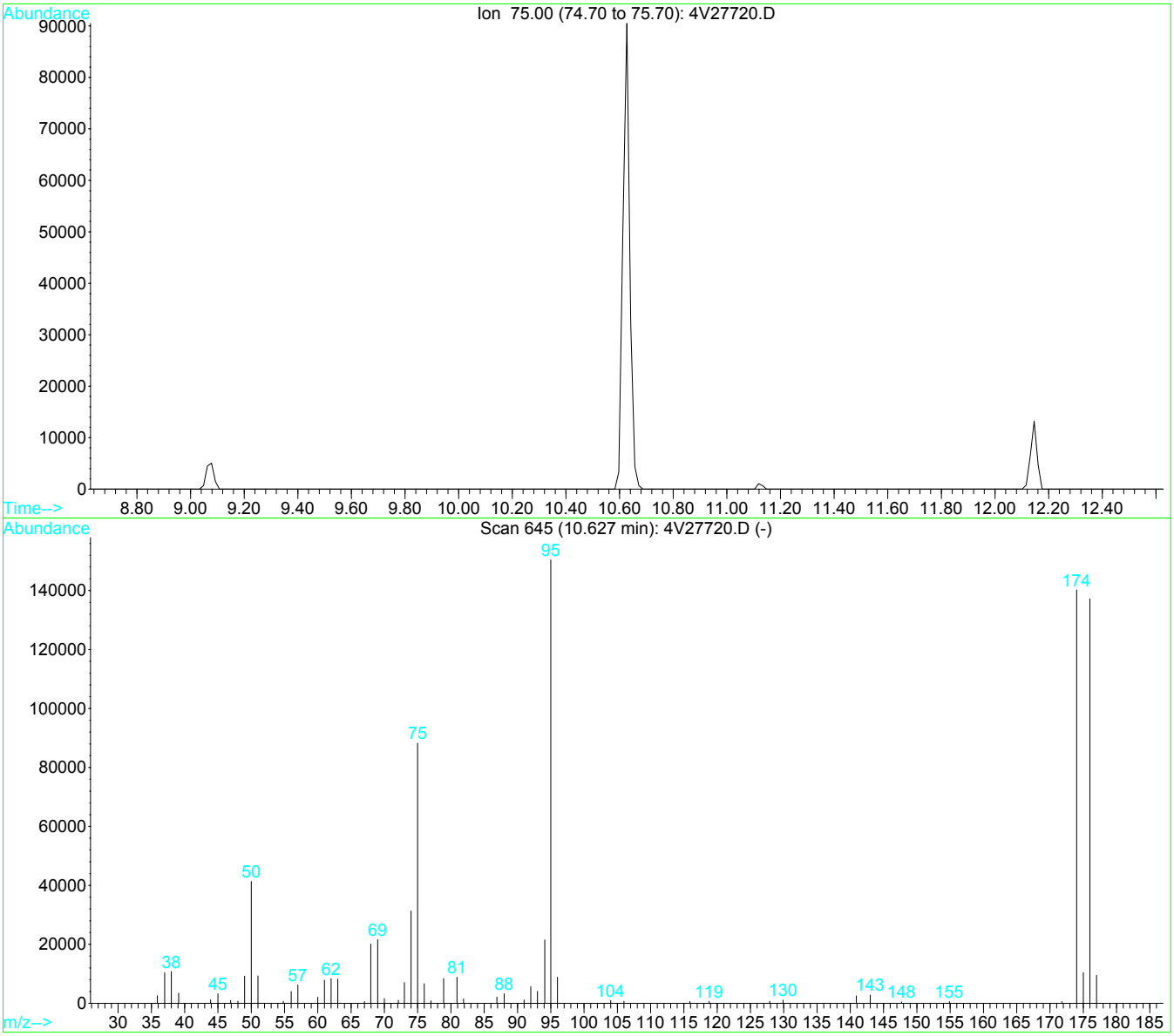
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	27.5	PASS
75	30 - 60% of 95	58.7	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	5.9	PASS
173	Less than 2% of 174	0	PASS
174	50 - 100% of 95	93.2	PASS
175	5 - 9% of 174	7.46	PASS
176	95 - 101% of 174	97.9	PASS
177	5 - 9% of 176	6.93	PASS

Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Cal Standard	S7F1212-CAL1	4V27721.D	06/09/2017	12:02.00
Cal Standard	S7F1212-CAL2	4V27722.D	06/09/2017	12:28.00
Cal Standard	S7F1212-CAL3	4V27723.D	06/09/2017	12:53.00
Cal Standard	S7F1212-CAL4	4V27724.D	06/09/2017	13:19.00
Cal Standard	S7F1212-CAL5	4V27725.D	06/09/2017	13:45.00
Cal Standard	S7F1212-CAL6	4V27726.D	06/09/2017	14:10.00
Cal Standard	S7F1212-CAL7	4V27727.D	06/09/2017	14:36.00

F-V

Data File : G:\HPCHEM\4\DATA\06092017\4V27720.D Vial: 2
Acq On : 9 Jun 2017 11:36 Operator: sdp
Sample : SEQ-TUN Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624



Spectrum Information: Scan 645

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.5	41368	PASS
75	95	30	60	58.7	88277	PASS
95	95	100	100	100.0	150464	PASS
96	95	5	9	5.9	8881	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.2	140224	PASS
175	174	5	9	7.5	10464	PASS
176	174	95	101	97.9	137216	PASS
177	176	5	9	6.9	9509	PASS

4V27720.D 0609VO4.M Mon Jun 12 15:45:15 2017 SS

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-4	Project:	Patchogue
Sequence:	S7F2120		

Lab Sample ID:	**S7F2120-TUN1**	Injection Date:	06/20/2017	Injection Time:	11:05
Lab File ID:	4V27811.D				

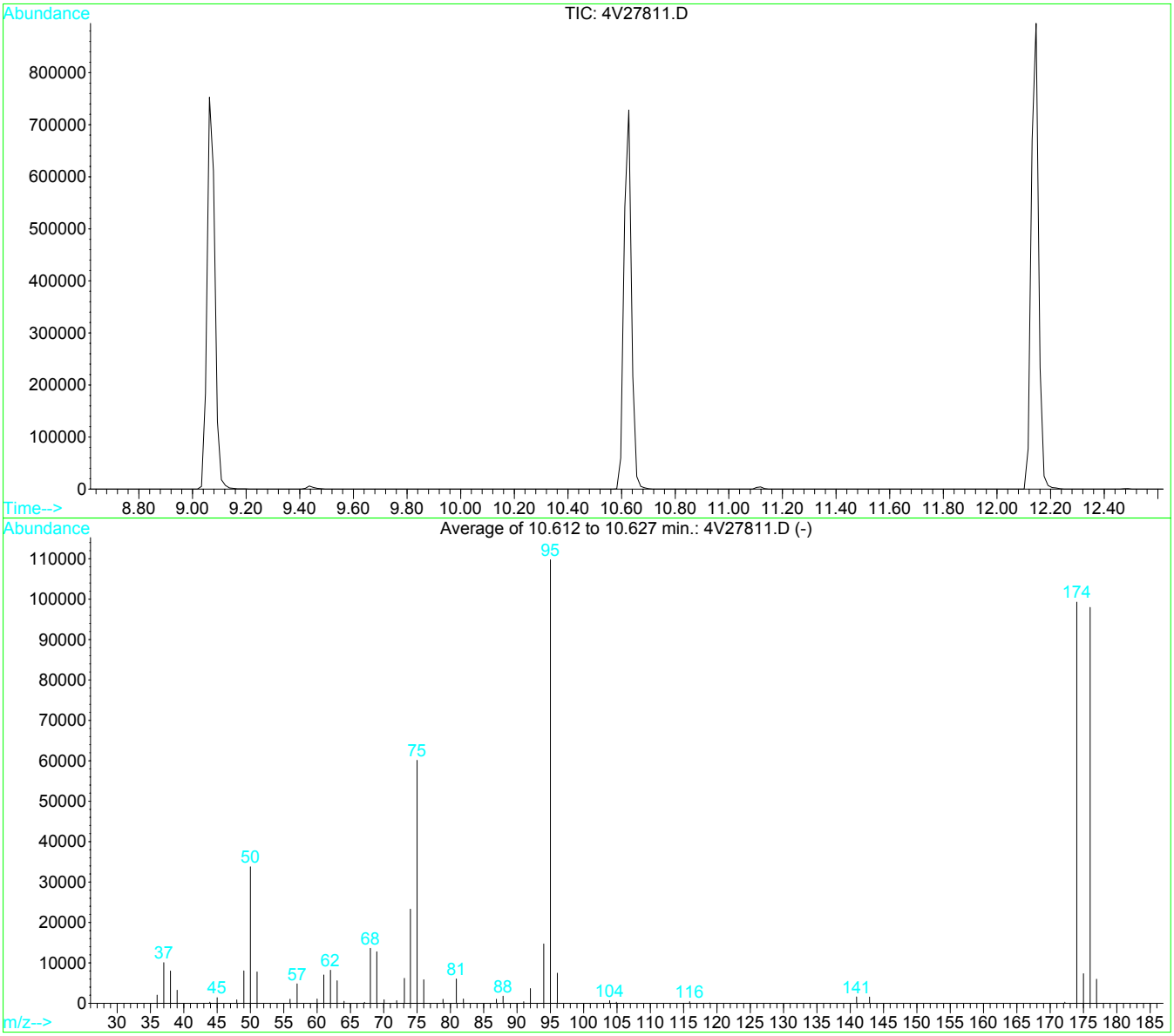
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	30.8	PASS
75	30 - 60% of 95	54.8	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.81	PASS
173	Less than 2% of 174	0	PASS
174	50 - 100% of 95	90.5	PASS
175	5 - 9% of 174	7.38	PASS
176	95 - 101% of 174	98.7	PASS
177	5 - 9% of 176	6.1	PASS

Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Calibration Check	S7F2120-CCV1	4V27812.D	06/20/2017	11:30.00
LCS	B7F2163-BS1	4V27813.D	06/20/2017	11:56.00
Blank	B7F2163-BLK1	4V27814.D	06/20/2017	12:21.00
MW-1-20170613	7060508-01	4V27819.D	06/20/2017	14:27.00
Dup-20170613	7060508-02	4V27820.D	06/20/2017	14:53.00
MW-7S-20170613	7060508-03	4V27821.D	06/20/2017	15:18.00
MW-7D-20170613	7060508-04	4V27822.D	06/20/2017	15:44.00
MW-8S-20170613	7060508-05	4V27823.D	06/20/2017	16:09.00
MW-8D-20170613	7060508-06	4V27824.D	06/20/2017	16:35.00
MW-4S-20170614	7060508-07	4V27825.D	06/20/2017	17:00.00
MW-4D-20170614	7060508-08	4V27826.D	06/20/2017	17:26.00
MW-3-20170614	7060508-09	4V27827.D	06/20/2017	17:52.00
MW-9S-20170614	7060508-10	4V27828.D	06/20/2017	18:18.00
Matrix Spike	B7F2163-MS1	4V27839.D	06/20/2017	22:55.00
Matrix Spike Dup	B7F2163-MSD1	4V27840.D	06/20/2017	23:20.00

F-V

Data File : G:\HPCHEM\4\DATA\06202017\4V27811.D Vial: 52
Acq On : 20 Jun 2017 11:05 Operator: sdp
Sample : SEQ-TUN Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624



Spectrum Information: Average of 10.612 to 10.627 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	30.8	33772	PASS
75	95	30	60	54.8	60119	PASS
95	95	100	100	100.0	109748	PASS
96	95	5	9	6.8	7470	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.5	99268	PASS
175	174	5	9	7.4	7329	PASS
176	174	95	101	98.7	97968	PASS
177	176	5	9	6.1	5979	PASS

4V27811.D 0609VO4.M Wed Jun 21 17:13:37 2017 SS

INSTRUMENT PERFORMANCE CHECK

Client:	Brown and Caldwell USR	Work Order:	7060508
Instrument ID:	GCMS-4	Project:	Patchogue
Sequence:	S7F2615		

Lab Sample ID: **S7F2615-TUN1** Injection Date: 06/22/2017 Injection Time: 12:45
Lab File ID: 4V27844.D

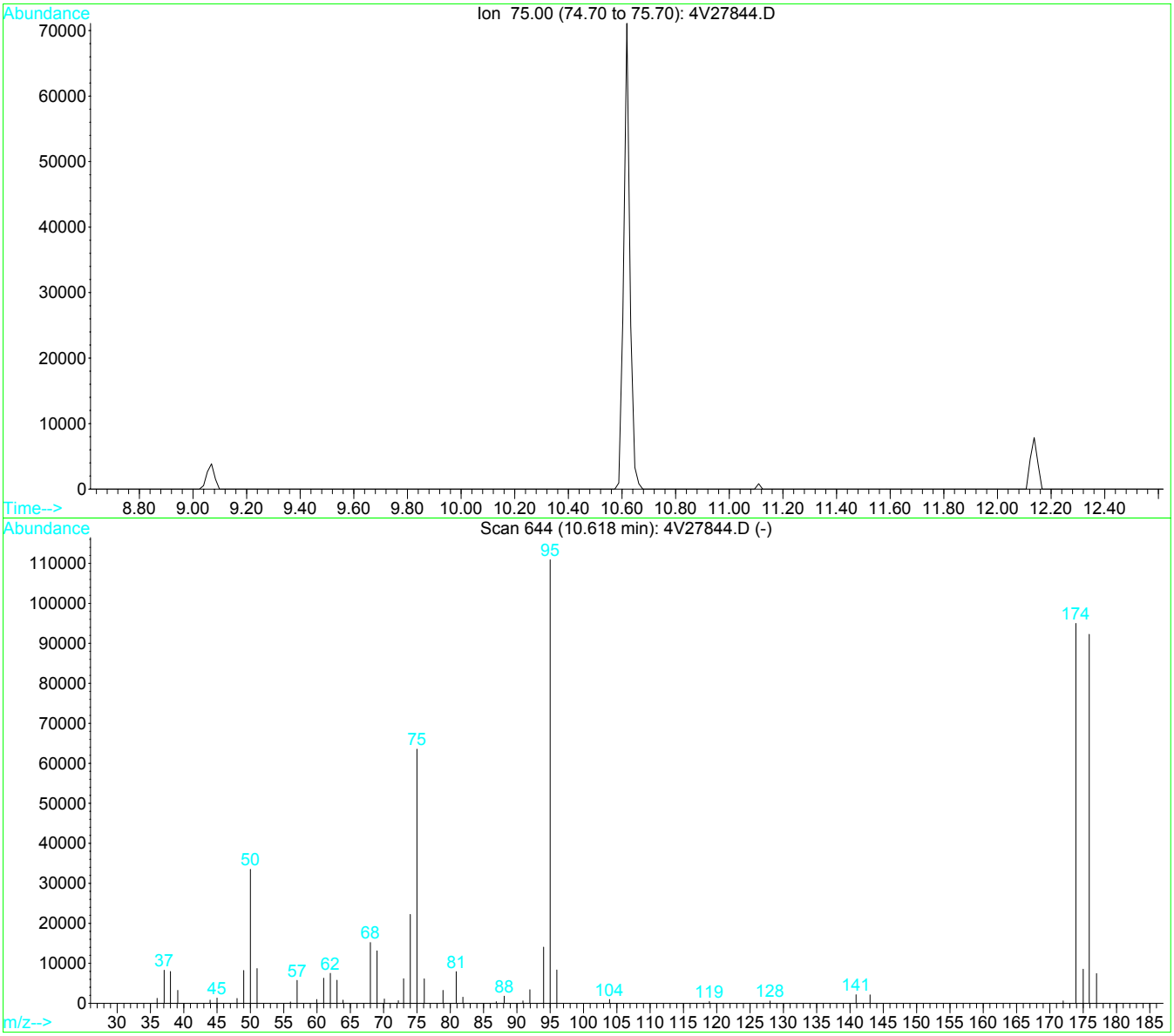
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	30.2	PASS
75	30 - 60% of 95	57.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	7.52	PASS
173	Less than 2% of 174	0	PASS
174	50 - 100% of 95	85.7	PASS
175	5 - 9% of 174	8.97	PASS
176	95 - 101% of 174	97.1	PASS
177	5 - 9% of 176	8.07	PASS

Samples Associated with Tune

Client ID or QC Type	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Calibration Check	S7F2615-CCV1	4V27845.D	06/22/2017	13:11.00
LCS	B7F2331-BS1	4V27846.D	06/22/2017	13:36.00
Blank	B7F2331-BLK1	4V27847.D	06/22/2017	14:02.00
Trip Blank-20170614	7060508-13	4V27852.D	06/22/2017	16:11.00
FB-20170614	7060508-11	4V27853.D	06/22/2017	16:37.00
MW-9D-20170614	7060508-12	4V27854.D	06/22/2017	17:02.00
Matrix Spike	B7F2331-MS1	4V27871.D	06/23/2017	0:17.00
Matrix Spike Dup	B7F2331-MSD1	4V27872.D	06/23/2017	0:42.00

F-V

Data File : G:\HPCHEM\4\DATA\06222017\4V27844.D Vial: 2
Acq On : 22 Jun 2017 12:45 Operator: sdp
Sample : SEQ-TUN Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624



Spectrum Information: Scan 644

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	30.2	33480	PASS
75	95	30	60	57.3	63558	PASS
95	95	100	100	100.0	110904	PASS
96	95	5	9	7.5	8337	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.7	94992	PASS
175	174	5	9	9.0	8520	PASS
176	174	95	101	97.1	92248	PASS
177	176	5	9	8.1	7445	PASS

4V27844.D 0609VO4.M Fri Jun 23 15:25:56 2017 SS

Response Factor Report GCMS-4

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration

Calibration Files
1 =4V27721.D 2 =4V27722.D 5 =4V27723.D
50 =4V27725.D 100 =4V27726.D 200 =4V27727.D

		Compound	1	2	5	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)		Dichlorodifluoromet		0.548	0.569	0.616	0.587	0.628	0.581	6.23
3)		Chloromethane	0.412	0.366	0.374	0.353	0.369	0.384	0.371	6.43
4)		Acrolein	0.140	0.138	0.132	0.137	0.145	0.147	0.139	3.79
5)		Vinyl Chloride	0.394	0.414	0.486	0.516	0.514	0.536	0.484	11.80
6)		Bromomethane		0.248	0.175	0.151	0.167	0.133	0.163	29.50
7)		Chloroethane	0.504	0.340	0.408	0.341	0.307	0.175	0.348	28.70
8)		Trichlorofluorometh	1.014	1.060	1.100	1.107	0.984	0.969	1.044	5.29
9)		1,1,2-Trichloro-1,2	0.579	0.656	0.662	0.690	0.677	0.694	0.662	5.89
10)		Acetone			2.003	0.490	0.525	0.509	0.843	77.45
11)		1,1-Dichloroethene	1.000	0.920	0.938	0.987	0.972	0.996	0.973	3.27
12)		tert-Butyl Alcohol	0.123	0.132	0.133	0.129	0.129	0.129	0.128	3.25
13)		Methyl Acetate	1.162	1.224	0.957	0.858	0.932	0.927	0.991	14.43
14)		Methylene Chloride	1.192	0.916	0.760	0.589	0.616	0.636	0.764	28.89
15)		Carbon Disulfide	1.696	1.643	1.719	1.694	1.703	1.782	1.701	2.53
16)		Acrylonitrile	0.291	0.348	0.379	0.398	0.416	0.416	0.376	11.84
17)		Methyl tert-Butyl E	1.588	1.507	1.504	1.521	1.571	1.618	1.551	2.80
18)		trans-1,2-Dichloroe	0.919	0.853	0.930	0.893	0.878	0.925	0.900	3.08
19)		1,1-Dichloroethane	1.089	1.090	1.100	1.110	1.121	1.157	1.115	2.26
20)		Vinyl Acetate	1.943	1.956	1.862	1.799	1.853	1.860	1.876	2.92
21)		2-Butanone		1.062	0.840	0.654	0.678	0.676	0.765	20.97
22)		2,2-Dichloropropane	1.041	0.876	0.914	0.910	0.911	0.923	0.929	5.62
23)		cis-1,2-Dichloroeth	1.030	1.010	1.128	1.048	1.066	1.069	1.060	3.51
24)		Chloroform	1.122	1.092	1.055	1.046	1.169	1.094	1.087	4.40
25)		Bromochloromethane	0.326	0.530	0.403	0.623	0.615	0.634	0.502	25.83
26)	S	Dibromofluoromethan	0.579	0.573	0.560	0.571	0.567	0.580	0.571	1.24
27)		Cyclohexane	1.120	0.737	0.566	0.450	0.458	0.520	0.615	39.76
28)		1,1,1-Trichloroetha	1.039	1.077	1.027	1.074	1.085	1.094	1.067	2.30
29)		1,1-Dichloropropene	0.571	0.591	0.641	0.637	0.672	0.713	0.637	7.42
30)		Carbon Tetrachlorid	0.948	0.970	1.038	1.056	1.061	1.070	1.034	5.33
31)		1,2-Dichloroethane	1.004	1.058	1.042	1.097	1.090	1.090	1.068	3.27
32)		Benzene	1.108	1.114	1.190	1.236	1.299	1.429	1.225	9.14
33)	I	1,4-Difluorobenzene	----------	ISTD	----------					
34)		Trichloroethene	0.387	0.366	0.410	0.445	0.450	0.477	0.422	9.08
35)		Methylcyclohexane	0.310	0.249	0.299	0.374	0.399	0.428	0.345	18.07
36)		1,2-Dichloropropane	0.264	0.221	0.245	0.261	0.273	0.296	0.258	9.25
37)		Bromodichloromethan	0.705	0.666	0.687	0.718	0.740	0.742	0.706	4.06
38)		p-Dioxane				0.004	0.004	0.005	0.004	12.57
39)		Dibromomethane	0.369	0.313	0.380	0.378	0.410	0.427	0.377	9.66
40)		2-Chloroethylvinyl							0.000	-1.00
41)		4-Methyl-2-Pentanon	0.253	0.346	0.452	0.499	0.553	0.553	0.447	24.79
42)		cis-1,3-Dichloropro	0.368	0.372	0.459	0.582	0.604	0.626	0.505	21.29
43)	S	Toluene-d8	0.995	0.967	0.991	0.999	1.015	0.992	0.995	1.46
44)		Toluene	1.113	1.142	1.217	1.237	1.283	1.362	1.212	7.46
45)		trans-1,3-Dichlorop	0.513	0.440	0.533	0.640	0.681	0.695	0.582	16.18
46)		1,1,2-Trichloroetha	0.201	0.272	0.272	0.309	0.326	0.333	0.285	15.60
47)		2-Hexanone	0.203	0.255	0.340	0.424	0.467	0.451	0.361	27.87
48)		1,3-Dichloropropane	0.395	0.416	0.439	0.483	0.504	0.521	0.461	10.11
49)		Tetrachloroethene	0.441	0.458	0.497	0.547	0.561	0.597	0.519	10.84
50)		Chlorodibromomethan	0.459	0.423	0.539	0.588	0.631	0.638	0.550	14.99
51)		1,2-Dibromoethane	0.365	0.371	0.403	0.405	0.437	0.445	0.402	7.66
52)	I	Chlorobenzene-d5	----------	ISTD	----------					
53)		Chlorobenzene	1.759	1.674	1.836	1.789	1.903	1.995	1.822	5.67
54)		1,1,1,2-Tetrachloro	0.833	0.962	0.865	0.949	1.009	1.056	0.942	8.25
55)		Ethylbenzene	2.361	2.684	2.848	3.050	3.287	3.500	2.946	12.83
56)		m+p-Xylenes	0.897	0.993	1.038	1.124	1.229	1.359	1.099	14.07
57)		o-Xylene	1.901	2.061	2.289	2.604	2.756	2.754	2.402	13.93

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report GCMS-4

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration

Calibration Files
1 =4V27721.D 2 =4V27722.D 5 =4V27723.D
50 =4V27725.D 100 =4V27726.D 200 =4V27727.D

		Compound	1	2	5	50	100	200	Avg	%RSD
58)		Styrene	1.379	1.504	1.590	1.814	1.985	2.102	1.726	15.05
59)		Isopropylbenzene	1.897	2.491	2.923	3.110	3.252	3.286	2.858	17.50
60)		Bromoform	0.622	0.690	0.821	0.909	1.020	1.031	0.854	18.19
61)		1,1,2,2-Tetrachloro	0.745	0.696	0.858	0.823	0.889	0.907	0.818	9.30
62)	S	4-Bromofluorobenzen	0.995	1.013	0.976	1.022	1.043	0.994	1.005	2.21
63)		1,2,3-Trichloroprop	0.343	0.329	0.357	0.392	0.410	0.411	0.372	8.77
64)		n-Propylbenzene	2.490	2.863	3.169	3.260	3.459	3.464	3.139	11.16
65)		Bromobenzene	0.924	1.165	1.114	1.169	1.249	1.275	1.149	9.94
66)		2-Chlorotoluene	2.058	1.991	2.112	2.186	2.355	2.329	2.173	6.16
67)		4-Chlorotoluene	2.253	2.530	2.726	2.635	2.831	2.916	2.636	8.30
68)		1,3,5-Trimethylbenz	2.185	2.062	2.497	2.506	2.742	2.791	2.455	10.89
69)		tert-Butylbenzene	1.550	1.513	1.948	2.112	2.183	2.203	1.937	14.95
70)		1,2,4-Trimethylbenz	2.046	2.119	2.426	2.479	2.632	2.590	2.391	9.38
71)		sec-Butylbenzene	1.992	2.253	2.492	2.720	2.835	2.881	2.554	12.84
72)		4-Isopropyltoluene	1.954	2.102	2.378	2.509	2.658	2.662	2.392	11.34
73)		1,3-Dichlorobenzene	1.334	1.486	1.539	1.572	1.690	1.687	1.547	7.92
74)	I	1,4-Dichlorobenzene-d	----------	----------	ISTD	----------	----------	----------	----------	----------
75)		1,4-Dichlorobenzene	1.154	1.341	1.270	1.319	1.372	1.399	1.303	6.27
76)		n-Butylbenzene	1.101	1.510	1.543	1.630	1.676	1.742	1.553	13.82
77)		1,2-Dichlorobenzene	1.081	1.008	1.144	1.198	1.255	1.314	1.171	8.84
78)		1,2-Dibromo-3-chlor	0.308	0.210	0.253	0.308	0.325	0.331	0.289	15.04
79)		1,2,4-Trichlorobenz	0.582	0.547	0.608	0.643	0.696	0.741	0.636	10.43
80)		Hexachlorobutadiene	0.402	0.383	0.390	0.386	0.408	0.419	0.398	3.23
81)		Naphthalene	1.745	1.501	1.731	1.864	2.040	2.189	1.841	12.12
82)		1,2,3-Trichlorobenz	0.559	0.530	0.521	0.595	0.634	0.663	0.581	9.11

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report GCMS-4

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
Total Cpnds : 82

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene	168	4.65	1.000	A	2	A	B
2		Dichlorodifluoromethane	85	1.12	0.242	A	1	A	B
3		Chloromethane	50	1.32	0.283	A	1	A	B
4		Acrolein	56	2.09	0.450	A	1	A	B
5		Vinyl Chloride	62	1.32	0.283	A	1	A	B
6		Bromomethane	94	1.53	0.328	QO	2	A	B
7		Chloroethane	64	1.60	0.344	QO	1	A	B
8		Trichlorofluoromethane	101	1.76	0.379	A	1	A	B
9		1,1,2-Trichloro-1,2,2 Trifluor	101	2.17	0.466	A	2	A	B
10		Acetone	43	2.21	0.475	LO	1	A	B
11		1,1-Dichloroethene	61	2.17	0.466	A	2	A	B
12		tert-Butyl Alcohol	59	2.76	0.594	A	2	A	B
13		Methyl Acetate	43	2.48	0.533	A	1	A	B
14		Methylene Chloride	84	2.60	0.558	LO	2	A	B
15		Carbon Disulfide	76	2.35	0.504	A	1	A	B
16		Acrylonitrile	53	2.85	0.613	A	2	A	B
17		Methyl tert-Butyl Ether	73	2.88	0.619	A	1	A	B
18		trans-1,2-Dichloroethene	61	2.87	0.616	A	2	A	B
19		1,1-Dichloroethane	63	3.36	0.722	A	2	A	B
20		Vinyl Acetate	43	3.39	0.728	A	1	A	B
21		2-Butanone	43	4.03	0.865	LO	1	A	B
22		2,2-Dichloropropane	77	4.00	0.859	A	1	A	B
23		cis-1,2-Dichloroethene	61	4.00	0.859	A	1	A	B
24		Chloroform	83	4.42	0.949	A	1	A	B
25		Bromochloromethane	49	4.27	0.917	LO	2	A	B
26	S	Dibromofluoromethane	113	4.59	0.987	A	2	A	B
27		Cyclohexane	56	4.64	0.997	LO	2	A	B
28		1,1,1-Trichloroethane	97	4.56	0.981	A	2	A	B
29		1,1-Dichloropropene	75	4.76	1.022	A	2	A	B
30		Carbon Tetrachloride	117	4.74	1.019	A	2	A	B
31		1,2-Dichloroethane	62	5.07	1.090	A	1	A	B
32		Benzene	78	4.98	1.070	A	1	A	B
33	I	1,4-Difluorobenzene	114	5.53	1.000	A	2	A	B
34		Trichloroethene	130	5.79	1.046	A	2	A	B
35		Methylcyclohexane	83	6.04	1.091	LO	2	A	B
36		1,2-Dichloropropane	63	6.10	1.102	A	2	A	B
37		Bromodichloromethane	83	6.43	1.162	A	1	A	B
38		p-Dioxane	88	6.23	1.126	A	2	A	B
39		Dibromomethane	174	6.20	1.121	A	2	A	B
40		2-Chloroethylvinyl Ether	63	6.80	1.229	A	1	A	B
41		4-Methyl-2-Pentanone	43	7.16	1.293	LO	2	A	B
42		cis-1,3-Dichloropropene	75	6.96	1.258	LO	2	A	B
43	S	Toluene-d8	98	7.26	1.312	A	2	A	B
44		Toluene	91	7.35	1.328	A	1	A	B
45		trans-1,3-Dichloropropene	75	7.68	1.388	LO	2	A	B
46		1,1,2-Trichloroethane	97	7.92	1.431	LO	1	A	B
47		2-Hexanone	43	8.20	1.482	LO	2	A	B
48		1,3-Dichloropropane	76	8.11	1.466	A	1	A	B
49		Tetrachloroethene	166	7.98	1.441	A	2	A	B
50		Chlorodibromomethane	129	8.38	1.514	A	1	A	B
51		1,2-Dibromoethane	107	8.50	1.536	A	1	A	B
52	I	Chlorobenzene-d5	82	9.08	1.000	A	2	A	B
53		Chlorobenzene	112	9.12	1.005	A	1	A	B
54		1,1,1,2-Tetrachloroethane	131	9.26	1.020	A	2	A	B
55		Ethylbenzene	91	9.27	1.021	A	1	A	B
56		m+p-Xylenes	106	9.43	1.039	A	2	A	B
57		o-Xylene	91	9.93	1.094	A	2	A	B
58		Styrene	104	9.96	1.097	A	2	A	B
59		Isopropylbenzene	105	10.42	1.148	LO	1	A	B
60		Bromoform	173	10.18	1.121	LO	2	A	B
61		1,1,2,2-Tetrachloroethane	83	10.85	1.195	A	1	A	B
62	S	4-Bromofluorobenzene	95	10.64	1.172	A	2	A	B
63		1,2,3-Trichloropropane	110	10.91	1.202	A	1	A	B
64		n-Propylbenzene	91	10.97	1.208	A	2	A	B

65	Bromobenzene	77	10.79	1.189	A	2	A	B
66	2-Chlorotoluene	91	11.06	1.218	A	2	A	B
67	4-Chlorotoluene	91	11.22	1.236	A	2	A	B
68	1,3,5-Trimethylbenzene	105	11.22	1.236	A	1	A	B
69	tert-Butylbenzene	119	11.61	1.279	A	2	A	B
70	1,2,4-Trimethylbenzene	105	11.70	1.289	A	1	A	B
71	sec-Butylbenzene	105	11.91	1.312	A	2	A	B
72	4-Isopropyltoluene	119	12.13	1.336	A	2	A	B
73	1,3-Dichlorobenzene	146	12.04	1.326	A	2	A	B
74 I	1,4-Dichlorobenzene-d4	152	12.16	1.000	A	2	A	B
75	1,4-Dichlorobenzene	146	12.19	1.002	A	2	A	B
76	n-Butylbenzene	91	12.67	1.042	A	2	A	B
77	1,2-Dichlorobenzene	146	12.65	1.040	A	2	A	B
78	1,2-Dibromo-3-chloropropane	75	13.71	1.127	A	2	A	B
79	1,2,4-Trichlorobenzene	180	14.80	1.217	A	2	A	B
80	Hexachlorobutadiene	225	15.00	1.234	A	2	A	B
81	Naphthalene	128	15.14	1.245	A	2	A	B
82	1,2,3-Trichlorobenzene	180	15.44	1.269	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

0609VO4.M Mon Jun 12 16:53:08 2017 SS

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27721.D Vial: 3
Acq On : 9 Jun 2017 12:02 Operator: sdp
Sample : SEQ-CAL@X1ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.65	168	410179	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.52	114	483039	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.07	82	249094	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	281985	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.59	113	237476	25.53	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 85.10%				
43) Toluene-d8	7.25	98	480627	30.26	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.87%				
62) 4-Bromofluorobenzene	10.63	95	247814	28.15	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 93.83%				
Target Compounds							Qvalue
3) Chloromethane	1.31	50	5630	0.85	ug/L	#	43
4) Acrolein	2.10	56	1916	0.77	ug/L		76
5) Vinyl Chloride	1.31	62	5386	0.60	ug/L	#	64
7) Chloroethane	1.61	64	6897	1.05	ug/L		99
8) Trichlorofluoromethane	1.77	101	13868	0.64	ug/L		94
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	7916	0.63	ug/L	#	58
10) Acetone	2.20	43	52112	4.87	ug/L		81
11) 1,1-Dichloroethene	2.16	61	13666	0.71	ug/L		81
12) tert-Butyl Alcohol	2.75	59	16841	7.88	ug/L		83
13) Methyl Acetate	2.49	43	15883	0.87	ug/L	#	76
14) Methylene Chloride	2.61	84	16303	1.02	ug/L		82
15) Carbon Disulfide	2.35	76	23185	0.78	ug/L		100
16) Acrylonitrile	2.84	53	3972	0.55	ug/L	#	59
17) Methyl tert-Butyl Ether	2.89	73	21716	0.78	ug/L		87
18) trans-1,2-Dichloroethene	2.87	61	12564	0.76	ug/L		94
19) 1,1-Dichloroethane	3.35	63	14886	0.69	ug/L		80
20) Vinyl Acetate	3.38	43	26566	0.80	ug/L	#	79
21) 2-Butanone	4.02	43	18099	1.31	ug/L	#	78
22) 2,2-Dichloropropane	3.99	77	14237	0.79	ug/L		92
23) cis-1,2-Dichloroethene	3.99	61	14087	0.69	ug/L		100
24) Chloroform	4.41	83	15343	0.86	ug/L		80
25) Bromochloromethane	4.26	49	4457	0.51	ug/L	#	44
27) Cyclohexane	4.65	56	15317	1.60	ug/L	#	31
28) 1,1,1-Trichloroethane	4.56	97	14202	0.77	ug/L		89
29) 1,1-Dichloropropene	4.75	75	7811	0.79	ug/L		81
30) Carbon Tetrachloride	4.74	117	12955	0.69	ug/L		99
31) 1,2-Dichloroethane	5.06	62	13732	0.74	ug/L		91
32) Benzene	4.97	78	15151	0.87	ug/L		99
34) Trichloroethene	5.78	130	6230	0.93	ug/L		87
35) Methylcyclohexane	6.03	83	4991	0.94	ug/L	#	85
36) 1,2-Dichloropropane	6.09	63	4251	1.13	ug/L	#	88
37) Bromodichloromethane	6.42	83	11353	0.88	ug/L		91
39) Dibromomethane	6.19	174	5937	0.87	ug/L		79
41) 4-Methyl-2-Pentanone	7.16	43	4073	0.58	ug/L	#	63
42) cis-1,3-Dichloropropene	6.95	75	5933	0.67	ug/L		88
44) Toluene	7.34	91	17923	0.93	ug/L		95
45) trans-1,3-Dichloropropene	7.67	75	8253	0.85	ug/L		80
46) 1,1,2-Trichloroethane	7.91	97	3242	0.68	ug/L		60
47) 2-Hexanone	8.21	43	3263	0.57	ug/L	#	63
48) 1,3-Dichloropropane	8.10	76	6353	0.85	ug/L	#	68
49) Tetrachloroethene	7.97	166	7096	0.76	ug/L		89
50) Chlorodibromomethane	8.37	129	7384	0.69	ug/L		97
51) 1,2-Dibromoethane	8.49	107	5885	0.88	ug/L	#	71
53) Chlorobenzene	9.11	112	14603	0.99	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27721.D Vial: 3
Acq On : 9 Jun 2017 12:02 Operator: sdp
Sample : SEQ-CAL@X1ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

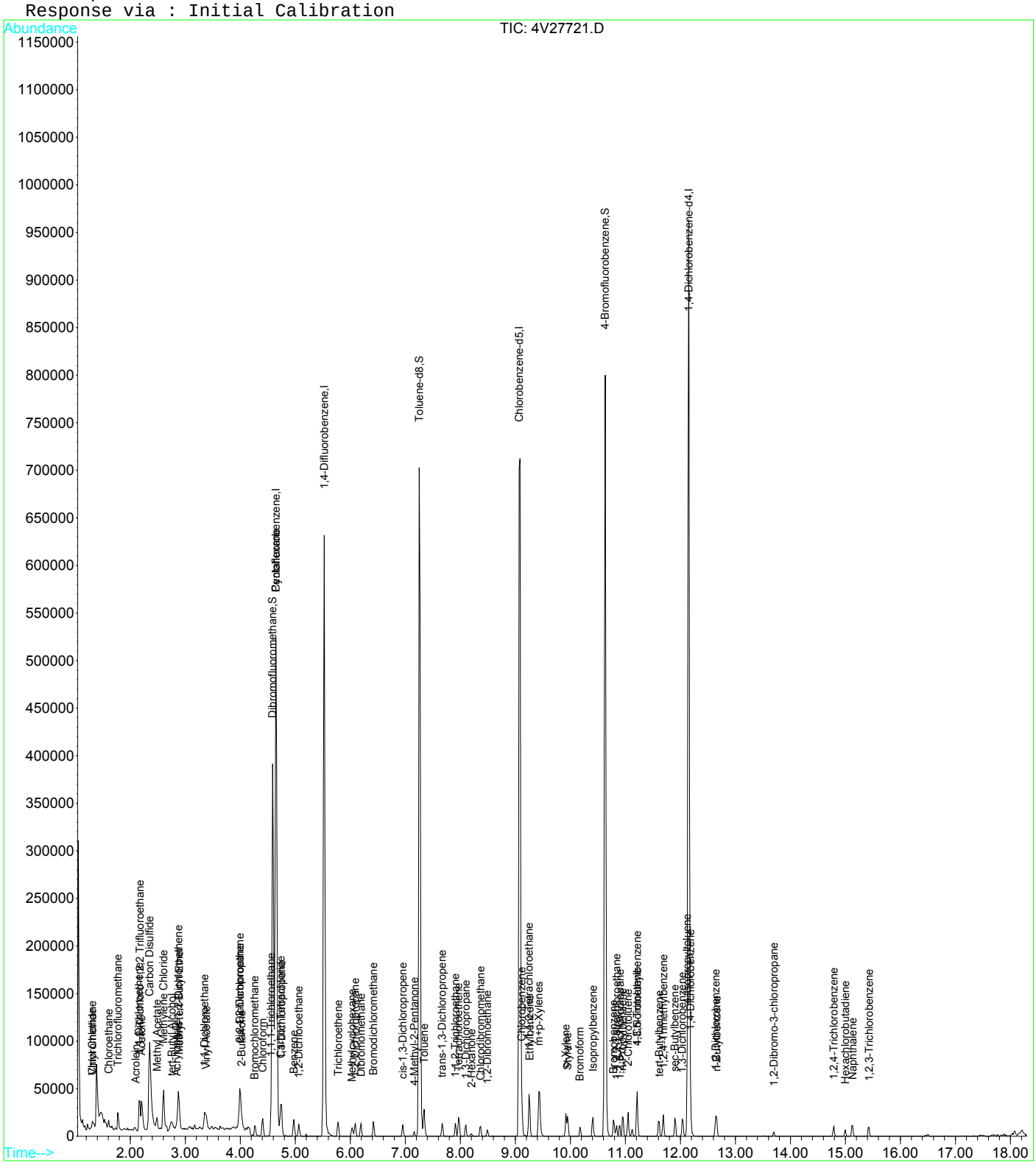
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	1,1,1,2-Tetrachloroethane	9.25	131	6914	0.86	ug/L	#	1
55)	Ethylbenzene	9.26	91	19603	0.80	ug/L		91
56)	m+p-Xylenes	9.43	106	14893	1.66	ug/L		97
57)	o-Xylene	9.92	91	15782	0.78	ug/L		75
58)	Styrene	9.95	104	11449	0.82	ug/L		96
59)	Isopropylbenzene	10.41	105	15749	0.66	ug/L		100
60)	Bromoform	10.17	173	5162	0.66	ug/L		89
61)	1,1,2,2-Tetrachloroethane	10.84	83	6185	0.94	ug/L		97
63)	1,2,3-Trichloropropane	10.90	110	2849	0.86	ug/L		60
64)	n-Propylbenzene	10.95	91	20677	0.76	ug/L		93
65)	Bromobenzene	10.78	77	7674	0.76	ug/L		74
66)	2-Chlorotoluene	11.05	91	17090	0.90	ug/L	#	86
67)	4-Chlorotoluene	11.21	91	18710	0.80	ug/L		92
68)	1,3,5-Trimethylbenzene	11.21	105	18143	0.84	ug/L		94
69)	tert-Butylbenzene	11.62	119	12874	0.77	ug/L	#	79
70)	1,2,4-Trimethylbenzene	11.69	105	16991	0.79	ug/L		79
71)	sec-Butylbenzene	11.90	105	16543	0.72	ug/L		92
72)	4-Isopropyltoluene	12.12	119	16228	0.75	ug/L	#	91
73)	1,3-Dichlorobenzene	12.03	146	11080	0.80	ug/L		95
75)	1,4-Dichlorobenzene	12.18	146	10846	0.85	ug/L	#	84
76)	n-Butylbenzene	12.66	91	10347	0.72	ug/L	#	95
77)	1,2-Dichlorobenzene	12.64	146	10162	0.95	ug/L		77
78)	1,2-Dibromo-3-chloropropan	13.70	75	2891	0.98	ug/L	#	64
79)	1,2,4-Trichlorobenzene	14.79	180	5470	1.00	ug/L		85
80)	Hexachlorobutadiene	15.00	225	3774	0.91	ug/L		79
81)	Naphthalene	15.13	128	16402	1.01	ug/L		92
82)	1,2,3-Trichlorobenzene	15.43	180	5255	0.98	ug/L		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27721.D Vial: 3
Acq On : 9 Jun 2017 12:02 Operator: sdp
Sample : SEQ-CAL@X1ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27722.D Vial: 4
Acq On : 9 Jun 2017 12:28 Operator: sdp
Sample : SEQ-CAL@X2ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	399664	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.53	114	476875	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	234547	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	276979	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	228895	25.26	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 84.20%			
43) Toluene-d8	7.26	98	461280	29.42	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.07%			
62) 4-Bromofluorobenzene	10.63	95	237504	28.65	ug/L	-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 95.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.13	85	14602	1.31	ug/L	85
3) Chloromethane	1.32	50	9760	1.51	ug/L	99
4) Acrolein	2.09	56	3666	1.52	ug/L	90
5) Vinyl Chloride	1.32	62	11024	1.27	ug/L	94
6) Bromomethane	1.53	94	6595m	1.94	ug/L	
7) Chloroethane	1.60	64	9064	1.41	ug/L	79
8) Trichlorofluoromethane	1.78	101	28232	1.34	ug/L	96
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	17475	1.42	ug/L #	74
10) Acetone	2.21	43	90613	8.69	ug/L	88
11) 1,1-Dichloroethene	2.15	61	24519	1.31	ug/L	89
12) tert-Butyl Alcohol	2.76	59	35280	16.95	ug/L	96
13) Methyl Acetate	2.48	43	32614	1.83	ug/L #	83
14) Methylene Chloride	2.60	84	24406	1.56	ug/L	76
15) Carbon Disulfide	2.35	76	43779	1.51	ug/L	94
16) Acrylonitrile	2.84	53	9261	1.32	ug/L #	76
17) Methyl tert-Butyl Ether	2.88	73	40155	1.47	ug/L	87
18) trans-1,2-Dichloroethene	2.87	61	22739	1.42	ug/L	91
19) 1,1-Dichloroethane	3.34	63	29049	1.39	ug/L	91
20) Vinyl Acetate	3.37	43	52112	1.60	ug/L	94
21) 2-Butanone	4.03	43	28299	2.10	ug/L	84
22) 2,2-Dichloropropane	3.98	77	23334	1.32	ug/L	98
23) cis-1,2-Dichloroethene	4.00	61	26924	1.36	ug/L	91
24) Chloroform	4.40	83	29108	1.67	ug/L	95
25) Bromochloromethane	4.27	49	14110	1.65	ug/L #	53
27) Cyclohexane	4.64	56	19625	2.10	ug/L #	53
28) 1,1,1-Trichloroethane	4.57	97	28703	1.60	ug/L	94
29) 1,1-Dichloropropene	4.76	75	15751	1.64	ug/L	90
30) Carbon Tetrachloride	4.74	117	25839	1.41	ug/L	97
31) 1,2-Dichloroethane	5.07	62	28186	1.56	ug/L	91
32) Benzene	4.97	78	29669	1.74	ug/L	96
34) Trichloroethene	5.79	130	11624	1.75	ug/L	90
35) Methylcyclohexane	6.04	83	7924	1.51	ug/L	96
36) 1,2-Dichloropropane	6.08	63	7034	1.89	ug/L	90
37) Bromodichloromethane	6.43	83	21182	1.67	ug/L	97
39) Dibromomethane	6.20	174	9945	1.48	ug/L	89
41) 4-Methyl-2-Pentanone	7.16	43	10994	1.59	ug/L	90
42) cis-1,3-Dichloropropene	6.95	75	11816	1.36	ug/L	91
44) Toluene	7.35	91	36305	1.90	ug/L	83
45) trans-1,3-Dichloropropene	7.68	75	13979	1.46	ug/L	96
46) 1,1,2-Trichloroethane	7.90	97	8652	1.83	ug/L	95
47) 2-Hexanone	8.20	43	8106	1.43	ug/L #	76
48) 1,3-Dichloropropane	8.10	76	13215	1.80	ug/L	100
49) Tetrachloroethene	7.98	166	14571	1.59	ug/L	95
50) Chlorodibromomethane	8.36	129	13445	1.28	ug/L	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27722.D Vial: 4
Acq On : 9 Jun 2017 12:28 Operator: sdp
Sample : SEQ-CAL@X2ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

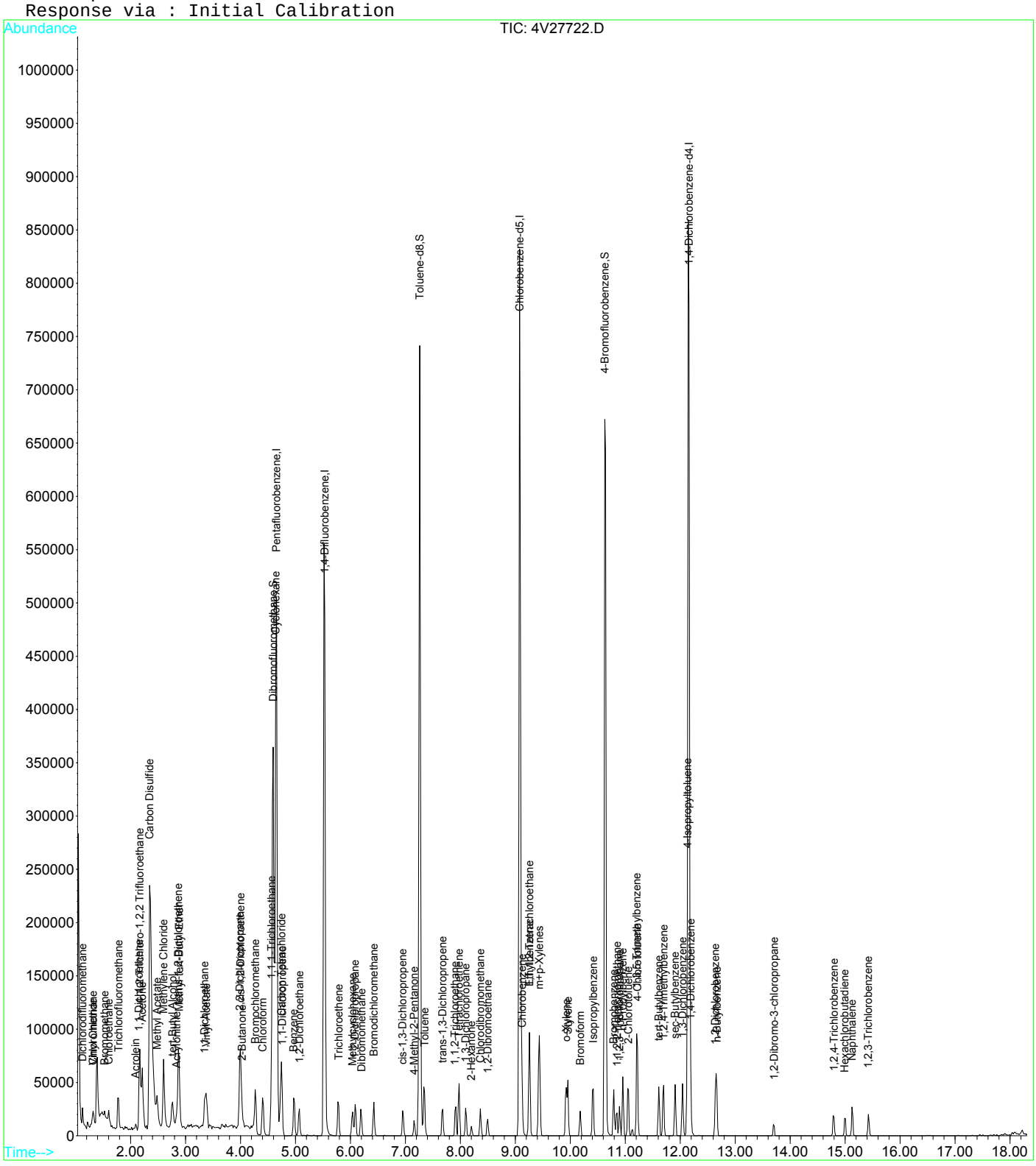
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	1,2-Dibromoethane	8.50	107	11794	1.78	ug/L	#	78
53)	Chlorobenzene	9.12	112	26176	1.88	ug/L		95
54)	1,1,1,2-Tetrachloroethane	9.26	131	15044	1.99	ug/L		92
55)	Ethylbenzene	9.26	91	41976	1.81	ug/L		100
56)	m+p-Xylenes	9.44	106	31052	3.68	ug/L		82
57)	o-Xylene	9.93	91	32234	1.69	ug/L		89
58)	Styrene	9.96	104	23520	1.79	ug/L		91
59)	Isopropylbenzene	10.42	105	38953	1.74	ug/L		99
60)	Bromoform	10.18	173	10785	1.46	ug/L		95
61)	1,1,2,2-Tetrachloroethane	10.85	83	10888	1.76	ug/L		74
63)	1,2,3-Trichloropropane	10.90	110	5150	1.65	ug/L		82
64)	n-Propylbenzene	10.95	91	44771	1.75	ug/L	#	89
65)	Bromobenzene	10.79	77	18218	1.92	ug/L	#	69
66)	2-Chlorotoluene	11.06	91	31138	1.74	ug/L		87
67)	4-Chlorotoluene	11.22	91	39568	1.79	ug/L		95
68)	1,3,5-Trimethylbenzene	11.21	105	32250	1.59	ug/L		88
69)	tert-Butylbenzene	11.61	119	23658	1.51	ug/L	#	76
70)	1,2,4-Trimethylbenzene	11.70	105	33140	1.64	ug/L		100
71)	sec-Butylbenzene	11.91	105	35232	1.63	ug/L	#	93
72)	4-Isopropyltoluene	12.13	119	32865	1.62	ug/L		94
73)	1,3-Dichlorobenzene	12.04	146	23233	1.79	ug/L		97
75)	1,4-Dichlorobenzene	12.19	146	24755	1.97	ug/L		98
76)	n-Butylbenzene	12.67	91	27888	1.97	ug/L		90
77)	1,2-Dichlorobenzene	12.64	146	18611	1.77	ug/L		89
78)	1,2-Dibromo-3-chloropropan	13.71	75	3875	1.34	ug/L	#	61
79)	1,2,4-Trichlorobenzene	14.80	180	10101	1.89	ug/L		93
80)	Hexachlorobutadiene	14.99	225	7066	1.74	ug/L		72
81)	Naphthalene	15.12	128	27720	1.73	ug/L		93
82)	1,2,3-Trichlorobenzene	15.42	180	9787	1.85	ug/L	#	61

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27722.D Vial: 4
Acq On : 9 Jun 2017 12:28 Operator: sdp
Sample : SEQ-CAL@X2ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27723.D Vial: 5
Acq On : 9 Jun 2017 12:53 Operator: sdp
Sample : SEQ-CAL@X5ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.66	168	393828	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.53	114	456897	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.08	82	234464	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	274207	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.60	113	220728	24.72	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 82.40%				
43) Toluene-d8	7.26	98	452698	30.13	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.43%				
62) 4-Bromofluorobenzene	10.63	95	228752	27.60	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 92.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	37329	3.40	ug/L		88
3) Chloromethane	1.32	50	24575	3.87	ug/L		93
4) Acrolein	2.09	56	8689	3.66	ug/L		92
5) Vinyl Chloride	1.32	62	31911	3.73	ug/L		88
6) Bromomethane	1.53	94	11511m	3.44	ug/L		
7) Chloroethane	1.60	64	26804	4.23	ug/L		80
8) Trichlorofluoromethane	1.78	101	72177	3.48	ug/L		92
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	43438	3.59	ug/L	#	83
10) Acetone	2.21	43	131462	12.79	ug/L		80
11) 1,1-Dichloroethene	2.17	61	61543	3.34	ug/L		80
12) tert-Butyl Alcohol	2.76	59	87609	42.72	ug/L		97
13) Methyl Acetate	2.48	43	62816	3.58	ug/L	#	85
14) Methylene Chloride	2.62	84	49891	3.25	ug/L		95
15) Carbon Disulfide	2.35	76	112819	3.95	ug/L		99
16) Acrylonitrile	2.84	53	24906	3.59	ug/L		84
17) Methyl tert-Butyl Ether	2.88	73	98726	3.67	ug/L		97
18) trans-1,2-Dichloroethene	2.87	61	61058	3.86	ug/L		82
19) 1,1-Dichloroethane	3.36	63	72171	3.50	ug/L		91
20) Vinyl Acetate	3.39	43	122234	3.82	ug/L		93
21) 2-Butanone	4.03	43	55141	4.16	ug/L		95
22) 2,2-Dichloropropane	4.00	77	59995	3.45	ug/L		98
23) cis-1,2-Dichloroethene	4.00	61	74065	3.79	ug/L		97
24) Chloroform	4.42	83	69273	4.04	ug/L		100
25) Bromochloromethane	4.27	49	26437	3.13	ug/L	#	49
27) Cyclohexane	4.64	56	37160	4.04	ug/L	#	68
28) 1,1,1-Trichloroethane	4.57	97	67431	3.81	ug/L		95
29) 1,1-Dichloropropene	4.76	75	42097	4.44	ug/L		90
30) Carbon Tetrachloride	4.74	117	68103	3.78	ug/L		97
31) 1,2-Dichloroethane	5.07	62	68374	3.83	ug/L		97
32) Benzene	4.98	78	78091	4.65	ug/L		94
34) Trichloroethene	5.79	130	31252	4.92	ug/L		94
35) Methylcyclohexane	6.04	83	22737	4.53	ug/L		88
36) 1,2-Dichloropropane	6.10	63	18670	5.24	ug/L		94
37) Bromodichloromethane	6.43	83	52291	4.30	ug/L		99
38) p-Dioxane	6.22	88	1322	36.01	ug/L	#	14
39) Dibromomethane	6.20	174	28936	4.51	ug/L		85
41) 4-Methyl-2-Pentanone	7.16	43	34411	5.20	ug/L		94
42) cis-1,3-Dichloropropene	6.96	75	34926	4.18	ug/L		94
44) Toluene	7.35	91	92707	5.07	ug/L		92
45) trans-1,3-Dichloropropene	7.68	75	40622	4.42	ug/L		94
46) 1,1,2-Trichloroethane	7.92	97	20742	4.59	ug/L		95
47) 2-Hexanone	8.20	43	25905	4.78	ug/L		77
48) 1,3-Dichloropropane	8.11	76	33421	4.74	ug/L		96
49) Tetrachloroethene	7.98	166	37864	4.31	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27723.D Vial: 5
Acq On : 9 Jun 2017 12:53 Operator: sdp
Sample : SEQ-CAL@X5ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

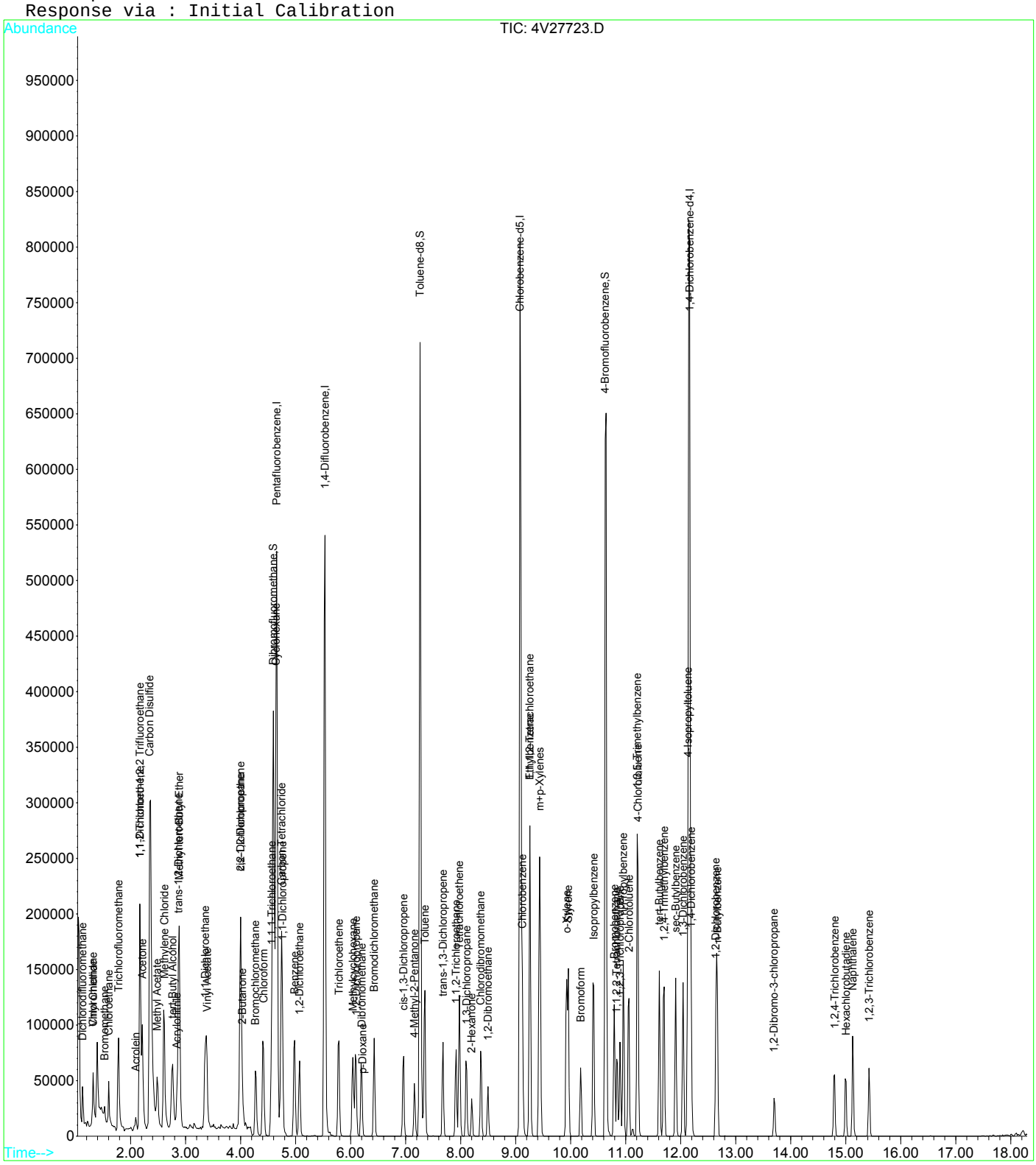
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	41062	4.08	ug/L		99
51)	1,2-Dibromoethane	8.50	107	30674	4.82	ug/L	#	79
53)	Chlorobenzene	9.12	112	71742	5.15	ug/L		100
54)	1,1,1,2-Tetrachloroethane	9.26	131	33799	4.47	ug/L		87
55)	Ethylbenzene	9.26	91	111280	4.81	ug/L		98
56)	m+p-Xylenes	9.44	106	81140	9.63	ug/L		96
57)	o-Xylene	9.93	91	89437	4.70	ug/L		95
58)	Styrene	9.96	104	62134	4.72	ug/L		84
59)	Isopropylbenzene	10.42	105	114214	5.11	ug/L		98
60)	Bromoform	10.18	173	32090	4.36	ug/L		86
61)	1,1,2,2-Tetrachloroethane	10.84	83	33525	5.41	ug/L		89
63)	1,2,3-Trichloropropane	10.90	110	13948	4.47	ug/L		88
64)	n-Propylbenzene	10.96	91	123828	4.84	ug/L	#	94
65)	Bromobenzene	10.79	77	43526	4.60	ug/L	#	53
66)	2-Chlorotoluene	11.06	91	82548	4.61	ug/L		83
67)	4-Chlorotoluene	11.22	91	106524	4.83	ug/L		96
68)	1,3,5-Trimethylbenzene	11.21	105	97595	4.81	ug/L		88
69)	tert-Butylbenzene	11.61	119	76112	4.86	ug/L		84
70)	1,2,4-Trimethylbenzene	11.70	105	94814	4.69	ug/L		94
71)	sec-Butylbenzene	11.91	105	97388	4.52	ug/L		95
72)	4-Isopropyltoluene	12.13	119	92923	4.57	ug/L		94
73)	1,3-Dichlorobenzene	12.04	146	60147	4.64	ug/L		97
75)	1,4-Dichlorobenzene	12.19	146	58030	4.67	ug/L		89
76)	n-Butylbenzene	12.67	91	70530	5.03	ug/L	#	91
77)	1,2-Dichlorobenzene	12.64	146	52281	5.01	ug/L		98
78)	1,2-Dibromo-3-chloropropan	13.70	75	11545	4.03	ug/L		75
79)	1,2,4-Trichlorobenzene	14.80	180	27791	5.24	ug/L		90
80)	Hexachlorobutadiene	15.01	225	17809	4.43	ug/L		97
81)	Naphthalene	15.13	128	79124	4.99	ug/L		98
82)	1,2,3-Trichlorobenzene	15.42	180	23799	4.55	ug/L		82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27723.D Vial: 5
Acq On : 9 Jun 2017 12:53 Operator: sdp
Sample : SEQ-CAL@X5ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



4V27723.D 0609VO4.M Mon Jun 12 15:45:50 2017 SS Page 3

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27724.D Vial: 6
Acq On : 9 Jun 2017 13:19 Operator: sdp
Sample : SEQ-CAL@X20ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	386991	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.53	114	466176	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	238243	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	276530	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	219343	24.99	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 83.30%			
43) Toluene-d8	7.26	98	467810	30.52	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.73%			
62) 4-Bromofluorobenzene	10.64	95	237049	28.15	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 93.83%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.12	85	138980	12.88	ug/L	99
3) Chloromethane	1.32	50	86691	13.89	ug/L	93
4) Acrolein	2.09	56	34686	14.86	ug/L	83
5) Vinyl Chloride	1.32	62	136118	16.20	ug/L	100
6) Bromomethane	1.53	94	27352m	8.32	ug/L	
7) Chloroethane	1.60	64	92615	14.89	ug/L	100
8) Trichlorofluoromethane	1.78	101	277002	13.60	ug/L	95
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	173742	14.61	ug/L	91
10) Acetone	2.21	43	177684	17.59	ug/L	84
11) 1,1-Dichloroethene	2.17	61	257375	14.22	ug/L	89
12) tert-Butyl Alcohol	2.76	59	316300	156.96	ug/L	96
13) Methyl Acetate	2.48	43	226614	13.16	ug/L #	79
14) Methylene Chloride	2.61	84	164275	10.87	ug/L	93
15) Carbon Disulfide	2.35	76	431198	15.35	ug/L	99
16) Acrylonitrile	2.85	53	98793	14.51	ug/L	97
17) Methyl tert-Butyl Ether	2.88	73	399640	15.13	ug/L	90
18) trans-1,2-Dichloroethene	2.88	61	232853	14.97	ug/L	93
19) 1,1-Dichloroethane	3.36	63	292946	14.46	ug/L	95
20) Vinyl Acetate	3.39	43	479630	15.25	ug/L	93
21) 2-Butanone	4.03	43	175827	13.49	ug/L	96
22) 2,2-Dichloropropane	4.00	77	240009	14.05	ug/L	96
23) cis-1,2-Dichloroethene	4.00	61	275238	14.32	ug/L	98
24) Chloroform	4.42	83	266447	15.82	ug/L	100
25) Bromochloromethane	4.27	49	98569	11.89	ug/L #	45
27) Cyclohexane	4.64	56	117477	13.00	ug/L #	72
28) 1,1,1-Trichloroethane	4.56	97	275947	15.86	ug/L	96
29) 1,1-Dichloropropene	4.76	75	163501	17.56	ug/L	97
30) Carbon Tetrachloride	4.74	117	283291	16.00	ug/L	94
31) 1,2-Dichloroethane	5.07	62	282229	16.10	ug/L	100
32) Benzene	4.98	78	310205	18.80	ug/L	100
34) Trichloroethene	5.79	130	131163	20.25	ug/L	92
35) Methylcyclohexane	6.04	83	110039	21.51	ug/L	98
36) 1,2-Dichloropropane	6.10	63	75966	20.89	ug/L	98
37) Bromodichloromethane	6.43	83	213428	17.21	ug/L	97
38) p-Dioxane	6.22	88	11619	310.23	ug/L #	79
39) Dibromomethane	6.20	174	113199	17.28	ug/L	84
41) 4-Methyl-2-Pentanone	7.16	43	147477	21.84	ug/L	95
42) cis-1,3-Dichloropropene	6.96	75	162945	19.13	ug/L	97
44) Toluene	7.35	91	352068	18.85	ug/L	100
45) trans-1,3-Dichloropropene	7.68	75	178975	19.06	ug/L	91
46) 1,1,2-Trichloroethane	7.92	97	88047	19.10	ug/L	95
47) 2-Hexanone	8.20	43	120452	21.78	ug/L	88
48) 1,3-Dichloropropane	8.11	76	145347	20.21	ug/L	99
49) Tetrachloroethene	7.98	166	165526	18.45	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27724.D Vial: 6
Acq On : 9 Jun 2017 13:19 Operator: sdp
Sample : SEQ-CAL@X20ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

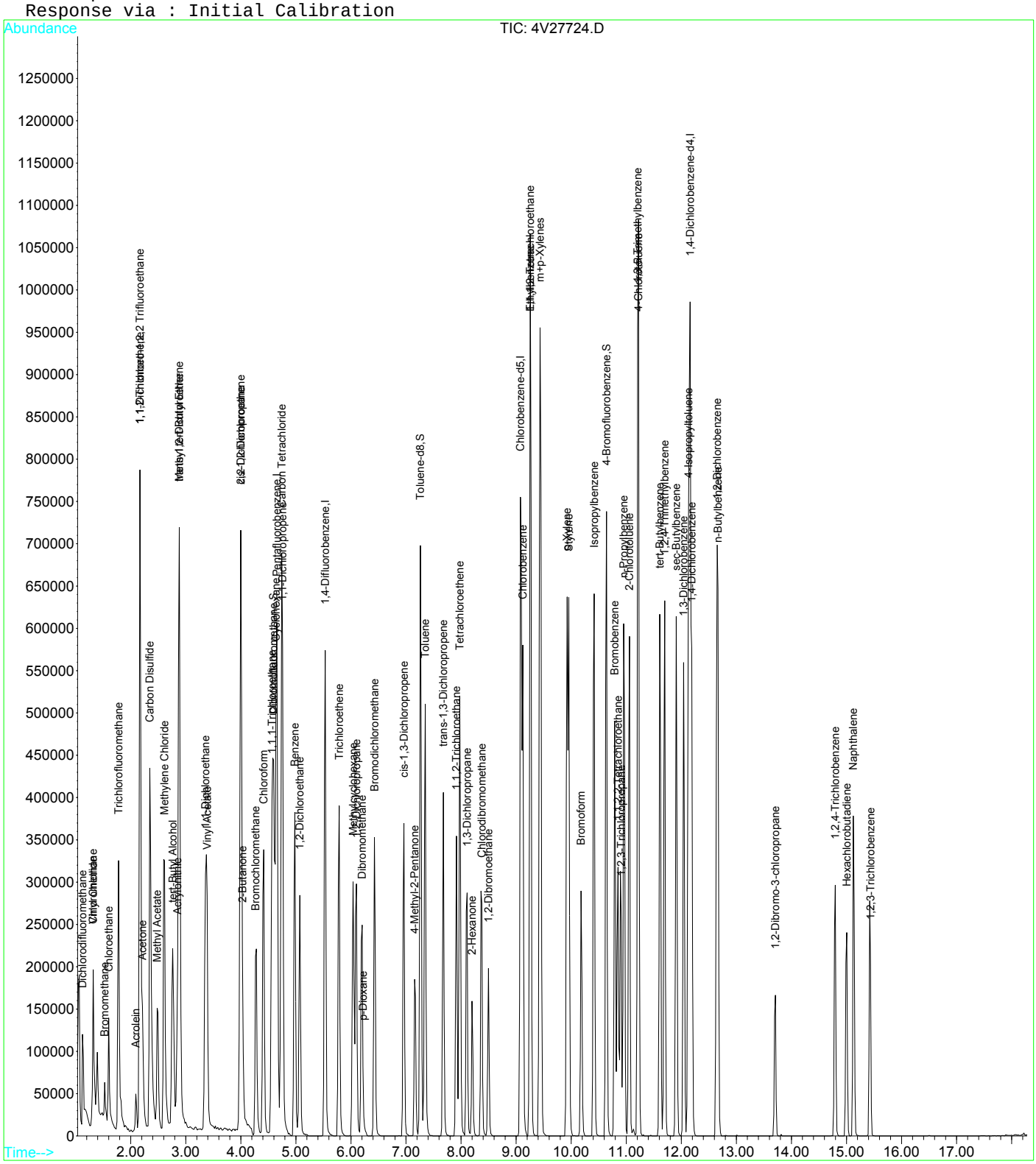
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.38	129	177106	17.25	ug/L		99
51)	1,2-Dibromoethane	8.50	107	120045	18.50	ug/L	#	67
53)	Chlorobenzene	9.12	112	285767	20.20	ug/L		99
54)	1,1,1,2-Tetrachloroethane	9.26	131	146279	19.05	ug/L		93
55)	Ethylbenzene	9.26	91	459112	19.54	ug/L		99
56)	m+p-Xylenes	9.43	106	333590	38.97	ug/L		87
57)	o-Xylene	9.93	91	388850	20.09	ug/L		97
58)	Styrene	9.96	104	271379	20.28	ug/L		92
59)	Isopropylbenzene	10.42	105	484551	21.32	ug/L		97
60)	Bromoform	10.18	173	140208	18.73	ug/L		98
61)	1,1,2,2-Tetrachloroethane	10.85	83	128894	20.46	ug/L		99
63)	1,2,3-Trichloropropane	10.91	110	57360	18.11	ug/L		88
64)	n-Propylbenzene	10.95	91	518848	19.95	ug/L	#	93
65)	Bromobenzene	10.79	77	182045	18.93	ug/L	#	66
66)	2-Chlorotoluene	11.06	91	345589	18.97	ug/L		87
67)	4-Chlorotoluene	11.22	91	406713	18.13	ug/L	#	90
68)	1,3,5-Trimethylbenzene	11.21	105	381750	18.54	ug/L		91
69)	tert-Butylbenzene	11.61	119	325141	20.43	ug/L		90
70)	1,2,4-Trimethylbenzene	11.70	105	387731	18.87	ug/L		90
71)	sec-Butylbenzene	11.91	105	429571	19.61	ug/L		96
72)	4-Isopropyltoluene	12.13	119	394023	19.07	ug/L		93
73)	1,3-Dichlorobenzene	12.04	146	242130	18.39	ug/L		97
75)	1,4-Dichlorobenzene	12.19	146	234110	18.67	ug/L		94
76)	n-Butylbenzene	12.67	91	307512	21.74	ug/L		95
77)	1,2-Dichlorobenzene	12.65	146	221096	21.02	ug/L		93
78)	1,2-Dibromo-3-chloropropan	13.71	75	53297	18.46	ug/L		77
79)	1,2,4-Trichlorobenzene	14.80	180	117015	21.90	ug/L		95
80)	Hexachlorobutadiene	15.00	225	73760	18.18	ug/L		94
81)	Naphthalene	15.12	128	334700	20.93	ug/L		96
82)	1,2,3-Trichlorobenzene	15.44	180	103630	19.64	ug/L		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27724.D Vial: 6
Acq On : 9 Jun 2017 13:19 Operator: sdp
Sample : SEQ-CAL@X20ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:43 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27725.D Vial: 7
Acq On : 9 Jun 2017 13:45 Operator: sdp
Sample : SEQ-CAL@X50ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	381357	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.53	114	442458	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.08	82	229467	30.00	ug/L	0.00
74) 1,4-Dichlorobenzene-d4	12.16	152	271319	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.59	113	217862	25.19	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 83.97%			
43) Toluene-d8	7.26	98	441868	30.37	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 101.23%			
62) 4-Bromofluorobenzene	10.64	95	234460	28.91	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 96.37%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.12	85	391616	36.83	ug/L	99
3) Chloromethane	1.32	50	224561	36.51	ug/L	97
4) Acrolein	2.09	56	86924	37.80	ug/L	86
5) Vinyl Chloride	1.32	62	327812	39.58	ug/L	98
6) Bromomethane	1.53	94	96218m	29.70	ug/L	
7) Chloroethane	1.60	64	216648	35.34	ug/L	94
8) Trichlorofluoromethane	1.76	101	703562	35.04	ug/L	97
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	438363	37.41	ug/L	86
10) Acetone	2.21	43	311686	31.31	ug/L	86
11) 1,1-Dichloroethene	2.17	61	627288	35.17	ug/L	83
12) tert-Butyl Alcohol	2.76	59	817684	411.76	ug/L	95
13) Methyl Acetate	2.48	43	545089	32.11	ug/L #	85
14) Methylene Chloride	2.60	84	374277	25.14	ug/L	94
15) Carbon Disulfide	2.35	76	1076411	38.90	ug/L	100
16) Acrylonitrile	2.85	53	252807	37.68	ug/L	95
17) Methyl tert-Butyl Ether	2.88	73	966521	37.13	ug/L	92
18) trans-1,2-Dichloroethene	2.87	61	567804	37.04	ug/L	93
19) 1,1-Dichloroethane	3.36	63	705716	35.35	ug/L	96
20) Vinyl Acetate	3.39	43	1143406	36.89	ug/L	93
21) 2-Butanone	4.03	43	415515	32.34	ug/L	99
22) 2,2-Dichloropropane	4.00	77	578374	34.37	ug/L	95
23) cis-1,2-Dichloroethene	4.00	61	666341	35.18	ug/L	98
24) Chloroform	4.42	83	664883	40.06	ug/L	98
25) Bromochloromethane	4.27	49	396153	48.50	ug/L #	68
27) Cyclohexane	4.64	56	285883	32.11	ug/L #	73
28) 1,1,1-Trichloroethane	4.56	97	682631	39.82	ug/L	99
29) 1,1-Dichloropropene	4.76	75	405172	44.15	ug/L	98
30) Carbon Tetrachloride	4.74	117	671302	38.47	ug/L	100
31) 1,2-Dichloroethane	5.07	62	696952	40.35	ug/L	99
32) Benzene	4.98	78	785702	48.31	ug/L	98
34) Trichloroethene	5.79	130	327944	53.35	ug/L	94
35) Methylcyclohexane	6.04	83	276147	56.87	ug/L	97
36) 1,2-Dichloropropane	6.10	63	192811	55.87	ug/L	95
37) Bromodichloromethane	6.43	83	529593	45.00	ug/L	98
38) p-Dioxane	6.23	88	28194	793.14	ug/L #	69
39) Dibromomethane	6.20	174	278768	44.83	ug/L	82
41) 4-Methyl-2-Pentanone	7.16	43	368008	57.42	ug/L	95
42) cis-1,3-Dichloropropene	6.96	75	429400	53.11	ug/L	98
44) Toluene	7.35	91	911927	51.45	ug/L	98
45) trans-1,3-Dichloropropene	7.68	75	472185	52.99	ug/L	95
46) 1,1,2-Trichloroethane	7.92	97	228025	52.10	ug/L	99
47) 2-Hexanone	8.20	43	312703	59.56	ug/L	87
48) 1,3-Dichloropropane	8.11	76	356424	52.21	ug/L	97
49) Tetrachloroethene	7.98	166	403014	47.32	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27725.D Vial: 7
Acq On : 9 Jun 2017 13:45 Operator: sdp
Sample : SEQ-CAL@X50ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

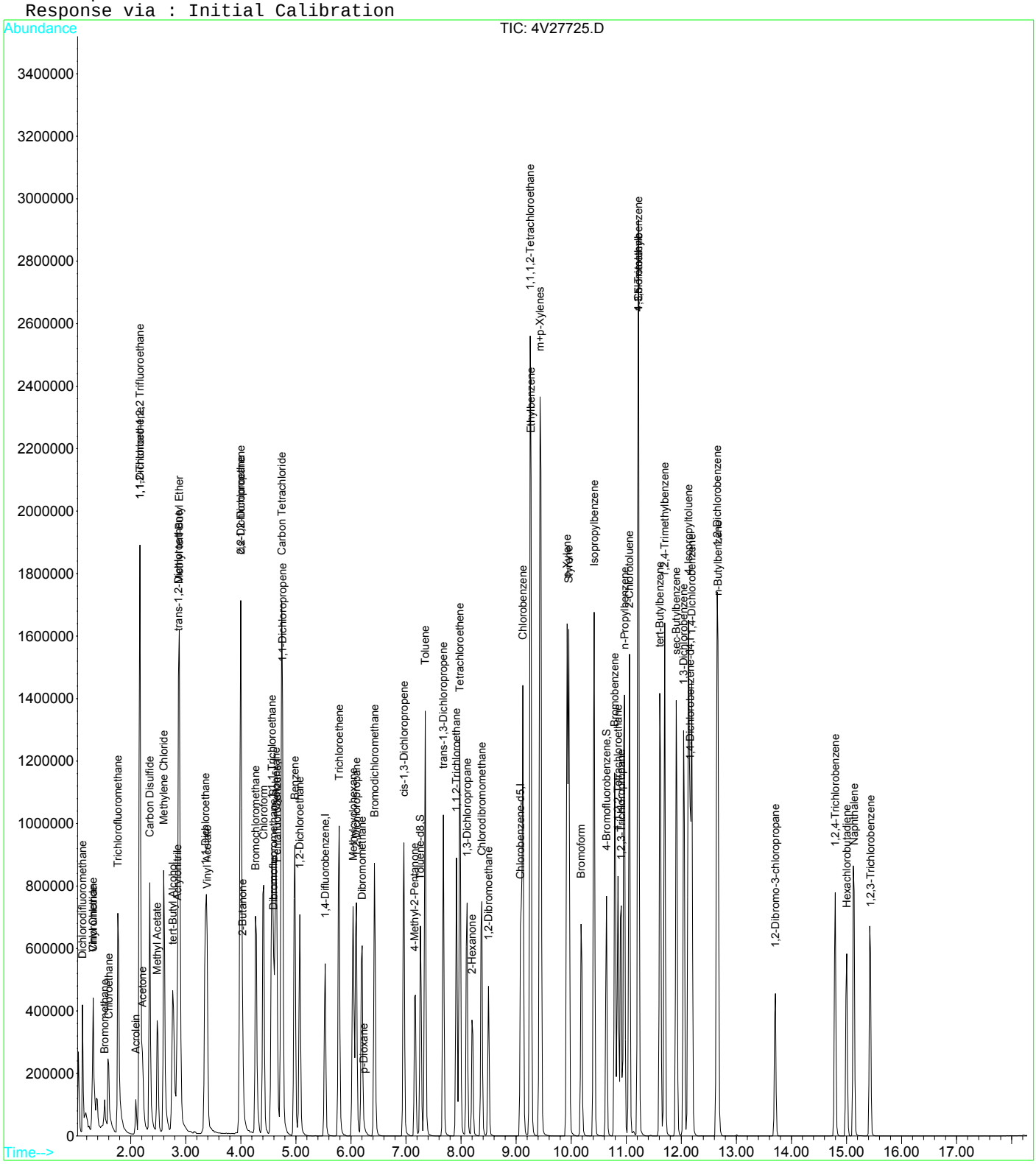
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.38	129	433500	44.48	ug/L		99
51)	1,2-Dibromoethane	8.50	107	298331	48.44	ug/L	#	68
53)	Chlorobenzene	9.12	112	684024	50.21	ug/L		97
54)	1,1,1,2-Tetrachloroethane	9.26	131	363065	49.08	ug/L		94
55)	Ethylbenzene	9.27	91	1166357	51.53	ug/L		97
56)	m+p-Xylenes	9.43	106	859555	104.25	ug/L		91
57)	o-Xylene	9.93	91	995742	53.41	ug/L		94
58)	Styrene	9.96	104	693841	53.83	ug/L		86
59)	Isopropylbenzene	10.42	105	1189552	54.34	ug/L		98
60)	Bromoform	10.18	173	347707	48.22	ug/L		98
61)	1,1,2,2-Tetrachloroethane	10.85	83	314758	51.88	ug/L		98
63)	1,2,3-Trichloropropane	10.91	110	150100	49.20	ug/L		98
64)	n-Propylbenzene	10.97	91	1246863	49.78	ug/L	#	88
65)	Bromobenzene	10.79	77	446905	48.24	ug/L		76
66)	2-Chlorotoluene	11.06	91	836211	47.67	ug/L		86
67)	4-Chlorotoluene	11.22	91	1007688	46.64	ug/L	#	92
68)	1,3,5-Trimethylbenzene	11.22	105	958332	48.31	ug/L		97
69)	tert-Butylbenzene	11.61	119	807744	52.69	ug/L		84
70)	1,2,4-Trimethylbenzene	11.70	105	948179	47.90	ug/L		92
71)	sec-Butylbenzene	11.91	105	1040359	49.31	ug/L		96
72)	4-Isopropyltoluene	12.13	119	959433	48.20	ug/L		94
73)	1,3-Dichlorobenzene	12.04	146	601208	47.40	ug/L		95
75)	1,4-Dichlorobenzene	12.19	146	596272	48.48	ug/L		97
76)	n-Butylbenzene	12.67	91	737133	53.13	ug/L		96
77)	1,2-Dichlorobenzene	12.65	146	541538	52.48	ug/L		97
78)	1,2-Dibromo-3-chloropropan	13.71	75	139498	49.25	ug/L		71
79)	1,2,4-Trichlorobenzene	14.80	180	290894	55.48	ug/L		92
80)	Hexachlorobutadiene	15.00	225	174713	43.88	ug/L		96
81)	Naphthalene	15.14	128	842864	53.72	ug/L		96
82)	1,2,3-Trichlorobenzene	15.44	180	268982	51.94	ug/L		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27725.D Vial: 7
Acq On : 9 Jun 2017 13:45 Operator: sdp
Sample : SEQ-CAL@X50ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27726.D Vial: 8
Acq On : 9 Jun 2017 14:10 Operator: sdp
Sample : SEQ-CAL@X100ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.66	168	359861	30.00	ug/L		0.00
33) 1,4-Difluorobenzene	5.53	114	421513	30.00	ug/L		0.00
52) Chlorobenzene-d5	9.09	82	217366	30.00	ug/L		0.02
74) 1,4-Dichlorobenzene-d4	12.16	152	267756	30.00	ug/L		0.00
System Monitoring Compounds							
26) Dibromofluoromethane	4.60	113	203862	24.98	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 83.27%				
43) Toluene-d8	7.26	98	427688	30.86	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.87%				
62) 4-Bromofluorobenzene	10.64	95	226691	29.50	ug/L		0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.33%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	704337m	70.20	ug/L		
3) Chloromethane	1.32	50	442159	76.17	ug/L		98
4) Acrolein	2.09	56	173973	80.17	ug/L		90
5) Vinyl Chloride	1.32	62	616509	78.89	ug/L		95
6) Bromomethane	1.53	94	199921m	65.39	ug/L		
7) Chloroethane	1.59	64	367915	63.60	ug/L		93
8) Trichlorofluoromethane	1.77	101	1179878	62.27	ug/L		99
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	812294	73.45	ug/L	#	79
10) Acetone	2.21	43	629727	67.04	ug/L		85
11) 1,1-Dichloroethene	2.15	61	1165419	69.25	ug/L		97
12) tert-Butyl Alcohol	2.78	59	1550398	827.37	ug/L		97
13) Methyl Acetate	2.48	43	1118208	69.81	ug/L		86
14) Methylene Chloride	2.60	84	738324	52.56	ug/L		94
15) Carbon Disulfide	2.35	76	2043297	78.24	ug/L		99
16) Acrylonitrile	2.85	53	499369	78.87	ug/L		93
17) Methyl tert-Butyl Ether	2.88	73	1884597	76.72	ug/L		94
18) trans-1,2-Dichloroethene	2.87	61	1052675	72.77	ug/L		98
19) 1,1-Dichloroethane	3.34	63	1344989	71.40	ug/L		98
20) Vinyl Acetate	3.37	43	2222276	75.99	ug/L		94
21) 2-Butanone	4.03	43	812970	67.05	ug/L		99
22) 2,2-Dichloropropane	4.00	77	1092770	68.82	ug/L		98
23) cis-1,2-Dichloroethene	4.00	61	1279107	71.57	ug/L		95
24) Chloroform	4.42	83	1402815	89.58	ug/L		100
25) Bromochloromethane	4.27	49	737462	95.69	ug/L	#	65
27) Cyclohexane	4.63	56	549007	65.34	ug/L	#	76
28) 1,1,1-Trichloroethane	4.57	97	1301817	80.47	ug/L		99
29) 1,1-Dichloropropene	4.76	75	805737	93.04	ug/L		97
30) Carbon Tetrachloride	4.74	117	1272880	77.29	ug/L		100
31) 1,2-Dichloroethane	5.07	62	1307766	80.23	ug/L		99
32) Benzene	4.98	78	1557991	101.52	ug/L		98
34) Trichloroethene	5.79	130	632330	107.99	ug/L		95
35) Methylcyclohexane	6.04	83	560392	121.14	ug/L		95
36) 1,2-Dichloropropane	6.10	63	383621	116.69	ug/L		96
37) Bromodichloromethane	6.43	83	1039657	92.73	ug/L		99
38) p-Dioxane	6.26	88	57418	1695.52	ug/L	#	68
39) Dibromomethane	6.20	174	576419	97.29	ug/L		81
41) 4-Methyl-2-Pentanone	7.17	43	776558	127.19	ug/L		95
42) cis-1,3-Dichloropropene	6.96	75	848735	110.19	ug/L		97
44) Toluene	7.35	91	1802165	106.73	ug/L		99
45) trans-1,3-Dichloropropene	7.68	75	956544	112.69	ug/L		97
46) 1,1,2-Trichloroethane	7.92	97	457811	109.81	ug/L		98
47) 2-Hexanone	8.21	43	655691	131.10	ug/L		89
48) 1,3-Dichloropropane	8.11	76	708452	108.94	ug/L		98
49) Tetrachloroethene	7.98	166	788305	97.16	ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27726.D Vial: 8
Acq On : 9 Jun 2017 14:10 Operator: sdp
Sample : SEQ-CAL@X100ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

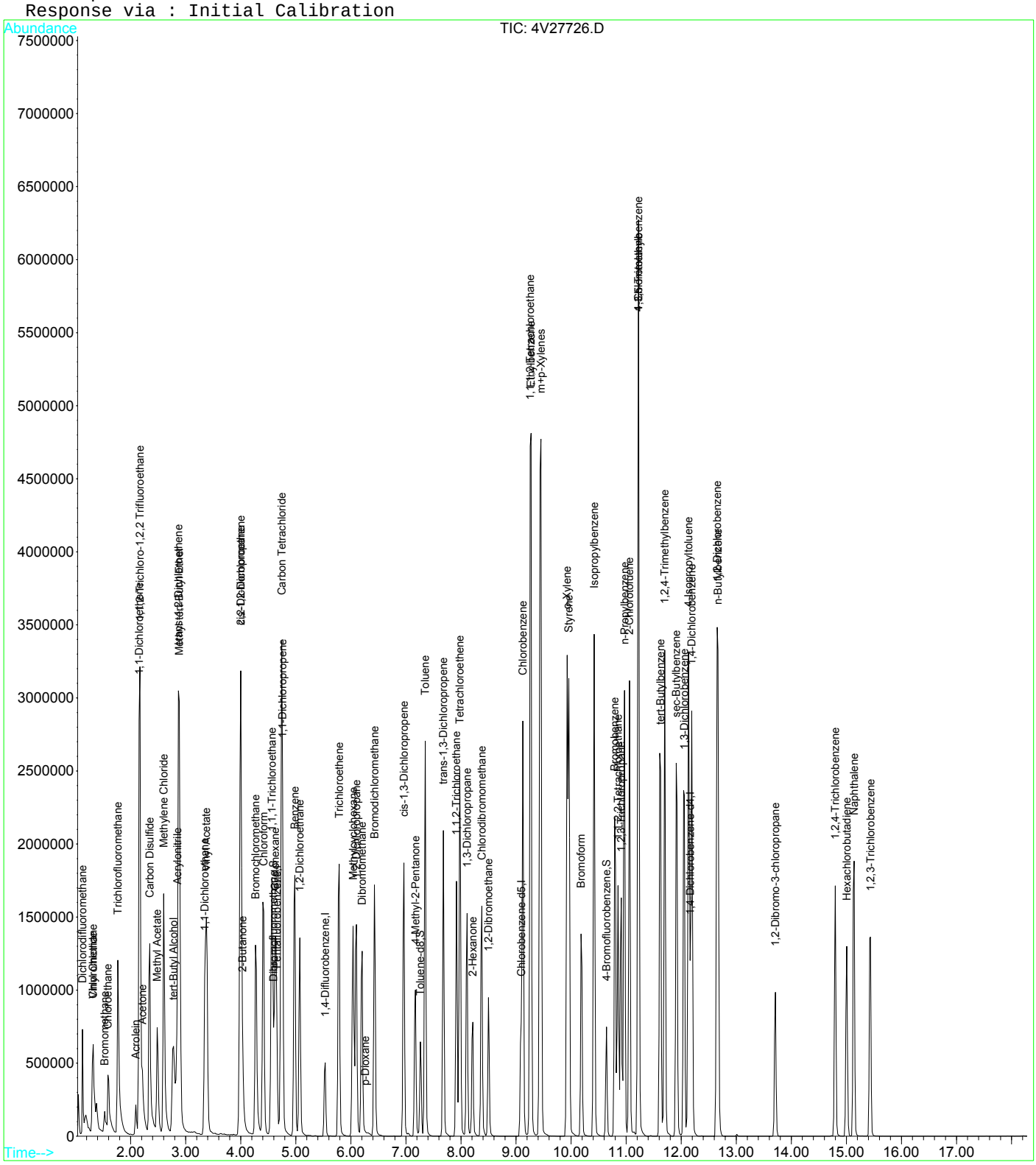
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.38	129	886595	95.49	ug/L		100
51)	1,2-Dibromoethane	8.50	107	614387	104.72	ug/L	#	72
53)	Chlorobenzene	9.12	112	1378572	106.82	ug/L		99
54)	1,1,1,2-Tetrachloroethane	9.26	131	730721	104.28	ug/L		94
55)	Ethylbenzene	9.27	91	2381325	111.07	ug/L		99
56)	m+p-Xylenes	9.45	106	1780940	228.02	ug/L		97
57)	o-Xylene	9.93	91	1996708	113.06	ug/L		97
58)	Styrene	9.96	104	1438343	117.80	ug/L		89
59)	Isopropylbenzene	10.42	105	2355987	113.61	ug/L		95
60)	Bromoform	10.18	173	738994	108.19	ug/L		97
61)	1,1,2,2-Tetrachloroethane	10.85	83	643843	112.03	ug/L		99
63)	1,2,3-Trichloropropane	10.91	110	297248	102.86	ug/L		99
64)	n-Propylbenzene	10.97	91	2506357	105.65	ug/L	#	89
65)	Bromobenzene	10.79	77	905168	103.14	ug/L		78
66)	2-Chlorotoluene	11.06	91	1706480	102.69	ug/L		89
67)	4-Chlorotoluene	11.22	91	2051110	100.23	ug/L	#	92
68)	1,3,5-Trimethylbenzene	11.22	105	1986615	105.72	ug/L		96
69)	tert-Butylbenzene	11.63	119	1581876	108.94	ug/L		95
70)	1,2,4-Trimethylbenzene	11.70	105	1906722	101.68	ug/L		90
71)	sec-Butylbenzene	11.91	105	2053913	102.77	ug/L		95
72)	4-Isopropyltoluene	12.13	119	1925899	102.15	ug/L		95
73)	1,3-Dichlorobenzene	12.06	146	1224374	101.90	ug/L		93
75)	1,4-Dichlorobenzene	12.19	146	1224666	100.89	ug/L		96
76)	n-Butylbenzene	12.67	91	1495925	109.25	ug/L		95
77)	1,2-Dichlorobenzene	12.65	146	1119995	109.99	ug/L		97
78)	1,2-Dibromo-3-chloropropan	13.71	75	290134	103.80	ug/L		85
79)	1,2,4-Trichlorobenzene	14.80	180	621577	120.12	ug/L		95
80)	Hexachlorobutadiene	15.01	225	364236	92.71	ug/L		95
81)	Naphthalene	15.14	128	1820703	117.58	ug/L		98
82)	1,2,3-Trichlorobenzene	15.44	180	566001	110.76	ug/L		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27726.D Vial: 8
Acq On : 9 Jun 2017 14:10 Operator: sdp
Sample : SEQ-CAL@X100ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:44 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27727.D Vial: 9
Acq On : 9 Jun 2017 14:36 Operator: sdp
Sample : SEQ-CAL@X200ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.65	168	349185	30.00	ug/L	0.00
33) 1,4-Difluorobenzene	5.53	114	415778	30.00	ug/L	0.00
52) Chlorobenzene-d5	9.09	82	211100	30.00	ug/L	0.02
74) 1,4-Dichlorobenzene-d4	12.16	152	253550	30.00	ug/L	0.00
System Monitoring Compounds						
26) Dibromofluoromethane	4.60	113	202606	25.59	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 85.30%			
43) Toluene-d8	7.26	98	412523	30.17	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 100.57%			
62) 4-Bromofluorobenzene	10.64	95	209746	28.11	ug/L	0.00
Spiked Amount 30.000	Range 70 - 130		Recovery = 93.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.13	85	1462886m	150.26	ug/L	
3) Chloromethane	1.32	50	894536	158.82	ug/L	98
4) Acrolein	2.09	56	341201	162.03	ug/L	89
5) Vinyl Chloride	1.32	62	1247740	164.55	ug/L	95
6) Bromomethane	1.53	94	309151m	104.20	ug/L	
7) Chloroethane	1.59	64	408469	72.77	ug/L	96
8) Trichlorofluoromethane	1.75	101	2256791	122.75	ug/L	99
9) 1,1,2-Trichloro-1,2,2 Trif	2.15	101	1616129	150.61	ug/L	88
10) Acetone	2.23	43	1185106	130.02	ug/L	87
11) 1,1-Dichloroethene	2.15	61	2318640	141.99	ug/L	88
12) tert-Butyl Alcohol	2.81	59	3006816	1653.66	ug/L	99
13) Methyl Acetate	2.50	43	2156936	138.78	ug/L	86
14) Methylene Chloride	2.60	84	1479556	108.54	ug/L	96
15) Carbon Disulfide	2.33	76	4147497	163.68	ug/L	97
16) Acrylonitrile	2.85	53	968448	157.63	ug/L	95
17) Methyl tert-Butyl Ether	2.90	73	3765871	158.00	ug/L	94
18) trans-1,2-Dichloroethene	2.87	61	2152548	153.36	ug/L	97
19) 1,1-Dichloroethane	3.34	63	2693663	147.37	ug/L	96
20) Vinyl Acetate	3.39	43	4330899	152.61	ug/L	94
21) 2-Butanone	4.04	43	1574313	133.82	ug/L	100
22) 2,2-Dichloropropane	4.00	77	2147655	139.38	ug/L	97
23) cis-1,2-Dichloroethene	4.00	61	2488971	143.52	ug/L	95
24) Chloroform	4.42	83	2546527	167.58	ug/L	99
25) Bromochloromethane	4.27	49	1475546	197.31	ug/L	65
27) Cyclohexane	4.63	56	1211465	148.60	ug/L #	78
28) 1,1,1-Trichloroethane	4.57	97	2546896	162.25	ug/L	98
29) 1,1-Dichloropropene	4.76	75	1659591	197.51	ug/L	97
30) Carbon Tetrachloride	4.74	117	2490136	155.83	ug/L	97
31) 1,2-Dichloroethane	5.07	62	2537304	160.42	ug/L	96
32) Benzene	4.98	78	3327553	223.45	ug/L	98
34) Trichloroethene	5.79	130	1321001	228.70	ug/L	95
35) Methylcyclohexane	6.04	83	1186238	259.97	ug/L	97
36) 1,2-Dichloropropane	6.10	63	820397	252.98	ug/L	97
37) Bromodichloromethane	6.43	83	2057133	186.02	ug/L	99
38) p-Dioxane	6.25	88	135213	4047.83	ug/L #	74
39) Dibromomethane	6.20	174	1183581	202.53	ug/L	80
41) 4-Methyl-2-Pentanone	7.17	43	1532070	254.40	ug/L	97
42) cis-1,3-Dichloropropene	6.96	75	1735604	228.43	ug/L	98
44) Toluene	7.35	91	3775240	226.67	ug/L	98
45) trans-1,3-Dichloropropene	7.68	75	1925610	229.98	ug/L	96
46) 1,1,2-Trichloroethane	7.92	97	923066	224.46	ug/L	96
47) 2-Hexanone	8.21	43	1250643	253.51	ug/L	91
48) 1,3-Dichloropropane	8.11	76	1445170	225.28	ug/L	99
49) Tetrachloroethene	7.99	166	1653520	206.61	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06092017\4V27727.D Vial: 9
Acq On : 9 Jun 2017 14:36 Operator: sdp
Sample : SEQ-CAL@X200ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:40:25 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

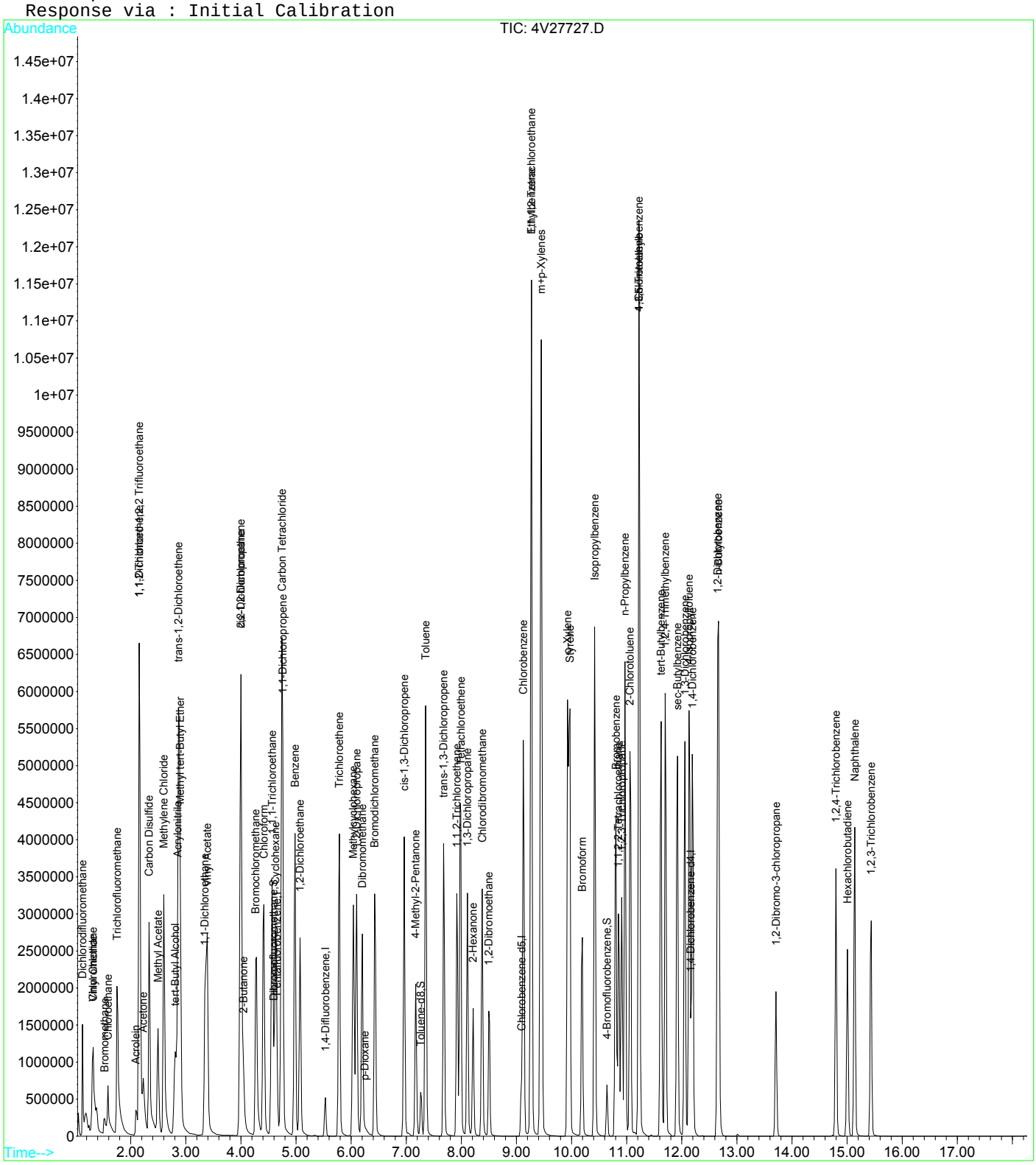
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.38	129	1768398	193.09	ug/L		99
51)	1,2-Dibromoethane	8.50	107	1234665	213.35	ug/L	#	70
53)	Chlorobenzene	9.12	112	2807472	224.00	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.27	131	1486188	218.39	ug/L		93
55)	Ethylbenzene	9.27	91	4925727	236.56	ug/L		96
56)	m+p-Xylenes	9.45	106	3825155	504.29	ug/L		97
57)	o-Xylene	9.93	91	3875986	225.99	ug/L		97
58)	Styrene	9.97	104	2958801	249.53	ug/L		96
59)	Isopropylbenzene	10.42	105	4624507	229.63	ug/L		94
60)	Bromoform	10.20	173	1450705	218.68	ug/L		97
61)	1,1,2,2-Tetrachloroethane	10.85	83	1276656	228.73	ug/L		99
63)	1,2,3-Trichloropropane	10.91	110	578083	205.98	ug/L		98
64)	n-Propylbenzene	10.97	91	4874407	211.56	ug/L	#	89
65)	Bromobenzene	10.81	77	1793974	210.49	ug/L	#	24
66)	2-Chlorotoluene	11.06	91	3277955	203.11	ug/L		92
67)	4-Chlorotoluene	11.22	91	4103249	206.45	ug/L	#	89
68)	1,3,5-Trimethylbenzene	11.22	105	3927396	215.21	ug/L		97
69)	tert-Butylbenzene	11.62	119	3099959	219.83	ug/L		96
70)	1,2,4-Trimethylbenzene	11.70	105	3645690	200.19	ug/L		91
71)	sec-Butylbenzene	11.92	105	4053957	208.87	ug/L		93
72)	4-Isopropyltoluene	12.13	119	3746657	204.62	ug/L	#	92
73)	1,3-Dichlorobenzene	12.06	146	2373781	203.43	ug/L		94
75)	1,4-Dichlorobenzene	12.19	146	2365111	205.76	ug/L		97
76)	n-Butylbenzene	12.67	91	2944021	227.05	ug/L		94
77)	1,2-Dichlorobenzene	12.65	146	2221027	230.34	ug/L		96
78)	1,2-Dibromo-3-chloropropan	13.71	75	558800	211.12	ug/L		90
79)	1,2,4-Trichlorobenzene	14.80	180	1252975	255.71	ug/L		95
80)	Hexachlorobutadiene	15.01	225	707961	190.29	ug/L		96
81)	Naphthalene	15.14	128	3700114	252.34	ug/L		98
82)	1,2,3-Trichlorobenzene	15.44	180	1120313	231.51	ug/L		86

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06092017\4V27727.D Vial: 9
Acq On : 9 Jun 2017 14:36 Operator: sdp
Sample : SEQ-CAL@X200ppb Inst : GCMS-4
Misc : M8260B Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 9 16:42 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



CALIBRATION VERIFICATION SUMMARY

SW 846 8260B

CCV ID: S7F2120-CCV1 **Analyzed:** 6/20/17 11:30

Analyte	Response Factor	Expected Result	Result	% Drift	Limit(s)
Benzene	1.225722	50.00	50.01	0	20
EthylBenzene	2.836034	50.00	48.14	4	20 (CCC)
m+p-Xylenes	1.035454	100.00	94.26	6	20
Methyl tert-Butyl Ether	1.616728	50.00	52.11	4	20
o-Xylene	2.382842	50.00	49.61	1	20
Toluene	1.14692	50.00	47.30	5	20 (CCC)

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27812.D Vial: 53
Acq On : 20 Jun 2017 11:30 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.64	168	344504	30.00	ug/L		-0.01
33) 1,4-Difluorobenzene	5.52	114	429284	30.00	ug/L		-0.01
52) Chlorobenzene-d5	9.08	82	226496	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	259642	30.00	ug/L		-0.01
System Monitoring Compounds							
26) Dibromofluoromethane	4.58	113	204132	31.13	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 103.77%				
43) Toluene-d8	7.25	98	421595	29.62	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.73%				
62) 4-Bromofluorobenzene	10.63	95	224494	29.58	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 98.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.13	85	316376m	47.40	ug/L		
3) Chloromethane	1.32	50	194823	45.77	ug/L		99
4) Acrolein	2.09	56	73247	45.89	ug/L		89
5) Vinyl Chloride	1.30	62	286612	51.58	ug/L		95
6) Bromomethane	1.51	94	81563m	42.08	ug/L		
7) Chloroethane	1.59	64	192425	46.18	ug/L		96
8) Trichlorofluoromethane	1.77	101	603463	50.34	ug/L		96
9) 1,1,2-Trichloro-1,2,2 Trif	2.17	101	399758	52.62	ug/L	#	78
10) Acetone	2.20	43	324332	55.03	ug/L		81
11) 1,1-Dichloroethene	2.15	61	568490	50.89	ug/L		94
12) tert-Butyl Alcohol	2.75	59	739158	501.35	ug/L		96
13) Methyl Acetate	2.48	43	537119	47.19	ug/L		88
14) Methylene Chloride	2.60	84	337967	46.74	ug/L		97
15) Carbon Disulfide	2.33	76	972686	49.79	ug/L		99
16) Acrylonitrile	2.84	53	222247	51.50	ug/L		94
17) Methyl tert-Butyl Ether	2.88	73	928282	52.11	ug/L		92
18) trans-1,2-Dichloroethene	2.87	61	504256	48.79	ug/L		91
19) 1,1-Dichloroethane	3.34	63	646870	50.54	ug/L		96
20) Vinyl Acetate	3.37	43	1103222	51.21	ug/L		93
21) 2-Butanone	4.01	43	380535	49.05	ug/L		99
22) 2,2-Dichloropropane	3.98	77	553068	51.83	ug/L		97
23) cis-1,2-Dichloroethene	3.98	61	610048	50.12	ug/L		99
24) Chloroform	4.40	83	622092	49.82	ug/L		99
25) Bromochloromethane	4.25	49	351035	48.70	ug/L		67
27) Cyclohexane	4.63	56	249304	43.01	ug/L	#	71
28) 1,1,1-Trichloroethane	4.55	97	611539	49.93	ug/L		96
29) 1,1-Dichloropropene	4.74	75	361772	49.45	ug/L		96
30) Carbon Tetrachloride	4.73	117	592343	49.87	ug/L		99
31) 1,2-Dichloroethane	5.06	62	623530	50.85	ug/L		100
32) Benzene	4.97	78	703777	50.01	ug/L		99
34) Trichloroethene	5.77	130	295908	48.96	ug/L		95
35) Methylcyclohexane	6.03	83	247814	41.30	ug/L		94
36) 1,2-Dichloropropane	6.08	63	184993	50.13	ug/L		95
37) Bromodichloromethane	6.41	83	494848	48.95	ug/L		98
38) p-Dioxane	6.22	88	23414	396.03	ug/L	#	83
39) Dibromomethane	6.19	174	266627	49.39	ug/L		83
41) 4-Methyl-2-Pentanone	7.16	43	355613	45.22	ug/L		95
42) cis-1,3-Dichloropropene	6.95	75	388334	43.84	ug/L		97
44) Toluene	7.34	91	820591	47.30	ug/L		100
45) trans-1,3-Dichloropropene	7.66	75	456008	46.28	ug/L		95
46) 1,1,2-Trichloroethane	7.90	97	213588	45.21	ug/L		98
47) 2-Hexanone	8.20	43	291763	45.08	ug/L		86
48) 1,3-Dichloropropane	8.10	76	329138	49.91	ug/L		98
49) Tetrachloroethene	7.98	166	366545	49.36	ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06202017\4V27812.D Vial: 53
Acq On : 20 Jun 2017 11:30 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

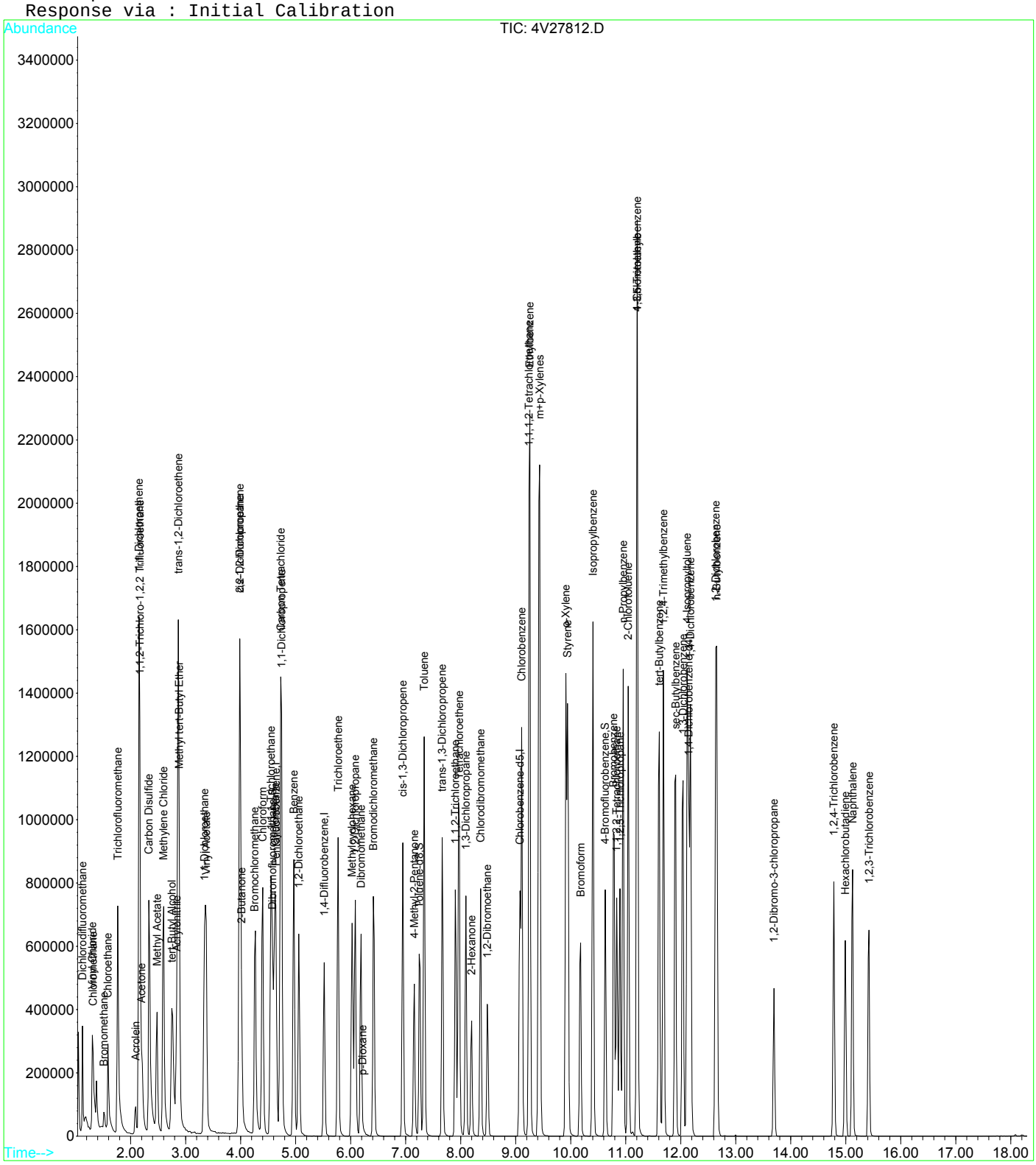
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	400095	50.87	ug/L		100
51)	1,2-Dibromoethane	8.48	107	281695	48.99	ug/L	#	62
53)	Chlorobenzene	9.11	112	633601	46.06	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.24	131	330553	46.47	ug/L		91
55)	Ethylbenzene	9.26	91	1070584	48.14	ug/L		99
56)	m+p-Xylenes	9.44	106	781754	94.26	ug/L		91
57)	o-Xylene	9.91	91	899507	49.61	ug/L		94
58)	Styrene	9.94	104	625681	48.01	ug/L		85
59)	Isopropylbenzene	10.40	105	1074729	43.54	ug/L		97
60)	Bromoform	10.18	173	332570	43.11	ug/L		97
61)	1,1,2,2-Tetrachloroethane	10.84	83	290314	46.98	ug/L		98
63)	1,2,3-Trichloropropane	10.90	110	136532	48.61	ug/L		100
64)	n-Propylbenzene	10.95	91	1148475	48.46	ug/L	#	89
65)	Bromobenzene	10.78	77	418502	48.25	ug/L		89
66)	2-Chlorotoluene	11.04	91	785381	47.88	ug/L		89
67)	4-Chlorotoluene	11.21	91	930906	46.78	ug/L	#	88
68)	1,3,5-Trimethylbenzene	11.21	105	903001	48.71	ug/L		95
69)	tert-Butylbenzene	11.61	119	729161	49.87	ug/L		94
70)	1,2,4-Trimethylbenzene	11.68	105	867647	48.07	ug/L		90
71)	sec-Butylbenzene	11.91	105	950752	49.31	ug/L		96
72)	4-Isopropyltoluene	12.12	119	909328	50.35	ug/L		94
73)	1,3-Dichlorobenzene	12.04	146	548070	46.91	ug/L		92
75)	1,4-Dichlorobenzene	12.18	146	546452	48.44	ug/L		98
76)	n-Butylbenzene	12.65	91	690179	51.35	ug/L		96
77)	1,2-Dichlorobenzene	12.64	146	500228	49.35	ug/L		98
78)	1,2-Dibromo-3-chloropropan	13.70	75	130670	52.24	ug/L		98
79)	1,2,4-Trichlorobenzene	14.78	180	279506	50.77	ug/L		91
80)	Hexachlorobutadiene	14.99	225	170732	49.54	ug/L		93
81)	Naphthalene	15.12	128	794080	49.84	ug/L		97
82)	1,2,3-Trichlorobenzene	15.42	180	255200	50.79	ug/L		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06202017\4V27812.D Vial: 53
Acq On : 20 Jun 2017 11:30 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 21 16:19 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



CALIBRATION VERIFICATION SUMMARY

SW 846 8260B

CCV ID: S7F2615-CCV1 **Analyzed:** 6/22/17 13:11

Analyte	Response Factor	Expected Result	Result	% Drift	Limit(s)
Benzene	1.060237	50.00	43.26	13	20
EthylBenzene	3.091951	50.00	52.48	5	20 (CCC)
m+p-Xylenes	1.140318	100.00	103.80	4	20
Methyl tert-Butyl Ether	1.497243	50.00	48.26	3	20
o-Xylene	2.657755	50.00	55.33	11	20
Toluene	1.252379	50.00	51.65	3	20 (CCC)

F-VII

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27845.D Vial: 3
Acq On : 22 Jun 2017 13:11 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:36 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.64	168	339433m	30.00	ug/L		-0.01
33) 1,4-Difluorobenzene	5.52	114	319424	30.00	ug/L		-0.01
52) Chlorobenzene-d5	9.08	82	172508	30.00	ug/L		0.00
74) 1,4-Dichlorobenzene-d4	12.15	152	228165	30.00	ug/L		-0.01
System Monitoring Compounds							
26) Dibromofluoromethane	4.58	113	171218	26.50	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 88.33%				
43) Toluene-d8	7.25	98	326023	30.79	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 102.63%				
62) 4-Bromofluorobenzene	10.63	95	186153	32.21	ug/L		-0.01
Spiked Amount 30.000	Range 70 - 130		Recovery = 107.37%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.12	85	276523m	42.05	ug/L		
3) Chloromethane	1.30	50	212036m	50.56	ug/L		
4) Acrolein	2.09	56	68596	43.62	ug/L		88
5) Vinyl Chloride	1.30	62	246810	45.08	ug/L		92
6) Bromomethane	1.51	94	57335m	29.54	ug/L		
7) Chloroethane	1.59	64	181285	43.81	ug/L		92
8) Trichlorofluoromethane	1.76	101	599029	50.72	ug/L		97
9) 1,1,2-Trichloro-1,2,2 Trif	2.15	101	374733	50.06	ug/L		88
10) Acetone	2.21	43	314053	54.08	ug/L		83
11) 1,1-Dichloroethene	2.15	61	542608	49.30	ug/L		92
12) tert-Butyl Alcohol	2.76	59	744692	512.65	ug/L		92
13) Methyl Acetate	2.48	43	499258	44.52	ug/L		86
14) Methylene Chloride	2.60	84	322130	45.21	ug/L		91
15) Carbon Disulfide	2.33	76	923272	47.97	ug/L		99
16) Acrylonitrile	2.84	53	211389	49.72	ug/L		94
17) Methyl tert-Butyl Ether	2.87	73	847023	48.26	ug/L		93
18) trans-1,2-Dichloroethene	2.85	61	489768	48.09	ug/L		89
19) 1,1-Dichloroethane	3.34	63	611723	48.50	ug/L		98
20) Vinyl Acetate	3.37	43	1006933	47.44	ug/L		93
21) 2-Butanone	4.01	43	363325	47.53	ug/L		99
22) 2,2-Dichloropropane	3.98	77	508136	48.33	ug/L		98
23) cis-1,2-Dichloroethene	3.98	61	574841	47.93	ug/L		98
24) Chloroform	4.40	83	542821	44.12	ug/L		99
25) Bromochloromethane	4.25	49	331284	46.64	ug/L	#	63
27) Cyclohexane	4.62	56	273350m	47.86	ug/L		
28) 1,1,1-Trichloroethane	4.55	97	566926	46.98	ug/L		97
29) 1,1-Dichloropropene	4.74	75	318892	44.24	ug/L		95
30) Carbon Tetrachloride	4.73	117	563498	48.15	ug/L		100
31) 1,2-Dichloroethane	5.06	62	568970	47.09	ug/L		98
32) Benzene	4.97	78	599799m	43.26	ug/L		
34) Trichloroethene	5.77	130	244171	54.30	ug/L		95
35) Methylcyclohexane	6.02	83	196863	44.10	ug/L		96
36) 1,2-Dichloropropane	6.08	63	136452	49.69	ug/L		94
37) Bromodichloromethane	6.41	83	433899	57.69	ug/L		99
38) p-Dioxane	6.22	88	23419	532.35	ug/L	#	56
39) Dibromomethane	6.19	174	227533	56.64	ug/L		82
41) 4-Methyl-2-Pentanone	7.16	43	285459	48.79	ug/L		92
42) cis-1,3-Dichloropropene	6.95	75	312417	47.40	ug/L		97
44) Toluene	7.33	91	666733	51.65	ug/L		98
45) trans-1,3-Dichloropropene	7.66	75	374960	51.15	ug/L		94
46) 1,1,2-Trichloroethane	7.90	97	168686	47.99	ug/L		95
47) 2-Hexanone	8.20	43	238334	49.49	ug/L		82
48) 1,3-Dichloropropane	8.09	76	267261	54.47	ug/L		98
49) Tetrachloroethene	7.98	166	317799	57.51	ug/L		95

(#) = qualifier out of range (m) = manual integration
4V27845.D 0609VO4.M Fri Jun 23 15:26:36 2017 SS Page 1

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\4\DATA\06222017\4V27845.D Vial: 3
Acq On : 22 Jun 2017 13:11 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:36 2017 Quant Results File: 0609VO4.RES

Quant Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration
DataAcq Meth : VOCRUN4

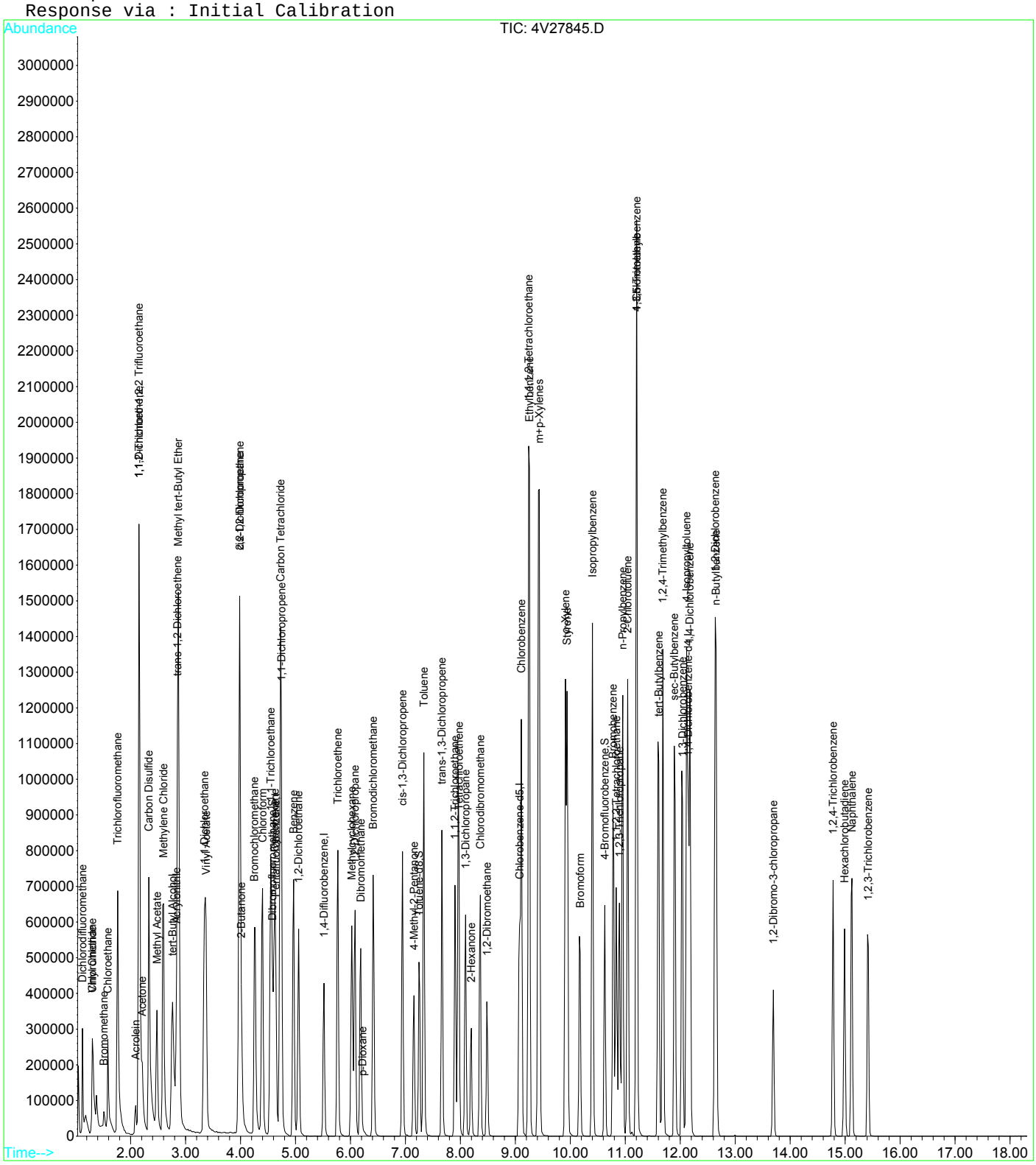
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
50)	Chlorodibromomethane	8.36	129	350640m	59.92	ug/L		
51)	1,2-Dibromoethane	8.48	107	231684	54.15	ug/L	#	58
53)	Chlorobenzene	9.11	112	517977	49.44	ug/L		98
54)	1,1,1,2-Tetrachloroethane	9.24	131	294188	54.31	ug/L		90
55)	Ethylbenzene	9.26	91	888977	52.48	ug/L		99
56)	m+p-Xylenes	9.43	106	655713	103.80	ug/L		90
57)	o-Xylene	9.91	91	764140	55.33	ug/L		93
58)	Styrene	9.94	104	518252	52.21	ug/L		82
59)	Isopropylbenzene	10.40	105	934833	49.73	ug/L		95
60)	Bromoform	10.18	173	292108	49.72	ug/L		96
61)	1,1,2,2-Tetrachloroethane	10.83	83	243560	51.75	ug/L		96
63)	1,2,3-Trichloropropane	10.89	110	122062	57.06	ug/L		94
64)	n-Propylbenzene	10.95	91	979247	54.25	ug/L	#	89
65)	Bromobenzene	10.78	77	357018	54.04	ug/L		83
66)	2-Chlorotoluene	11.04	91	677191	54.20	ug/L	#	86
67)	4-Chlorotoluene	11.21	91	821496	54.20	ug/L	#	87
68)	1,3,5-Trimethylbenzene	11.21	105	776966	55.03	ug/L		93
69)	tert-Butylbenzene	11.61	119	642245	57.67	ug/L		95
70)	1,2,4-Trimethylbenzene	11.68	105	774871	56.37	ug/L		89
71)	sec-Butylbenzene	11.89	105	832475	56.68	ug/L	#	93
72)	4-Isopropyltoluene	12.12	119	775100	56.35	ug/L	#	89
73)	1,3-Dichlorobenzene	12.04	146	489200	54.98	ug/L		94
75)	1,4-Dichlorobenzene	12.18	146	482277	48.65	ug/L		95
76)	n-Butylbenzene	12.65	91	608697	51.54	ug/L		97
77)	1,2-Dichlorobenzene	12.64	146	433969	48.72	ug/L		94
78)	1,2-Dibromo-3-chloropropan	13.69	75	117896	53.63	ug/L		89
79)	1,2,4-Trichlorobenzene	14.78	180	244003	50.44	ug/L		98
80)	Hexachlorobutadiene	14.99	225	153653	50.74	ug/L		94
81)	Naphthalene	15.12	128	690399	49.31	ug/L		97
82)	1,2,3-Trichlorobenzene	15.42	180	219796	49.78	ug/L		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\4\DATA\06222017\4V27845.D Vial: 3
Acq On : 22 Jun 2017 13:11 Operator: sdp
Sample : SEQ-CCV@X50ppb Inst : GCMS-4
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 23 12:36 2017 Quant Results File: 0609VO4.RES

Method : G:\HPCHEM\4\METHODS\0609VO4.M (RTE Integrator)
Title : VOC's by EPA Method 8260B/624
Last Update : Fri Jun 09 16:52:33 2017
Response via : Initial Calibration



INTERNAL STANDARD REPORT

Analysis Class: VOLATILES **Analysis Batch:** S7F2120

		PFB		DFB		CHB-D5		DCB-D4					
Lab Number	File ID	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt
B7F2163-BLK1	4V27814.D	326699	4.66	408425	5.52	209450	9.08	248455	12.15				
7060508-01	4V27819.D	354857	4.65	466983	5.52	250626	9.08	285066	12.15				
7060508-02	4V27820.D	309350	4.66	396477	5.52	207291	9.08	238891	12.15				
7060508-03	4V27821.D	287566	4.65	376496	5.52	185589	9.08	241742	12.15				
7060508-04	4V27822.D	280065	4.65	359215	5.52	187393	9.08	221651	12.15				
7060508-05	4V27823.D	254948	4.64	337826	5.52	181453	9.08	203242	12.15				
7060508-06	4V27824.D	266867	4.66	342821	5.52	173241	9.08	201063	12.15				
7060508-07	4V27825.D	250561	4.64	323652	5.52	170524	9.08	189859	12.15				
7060508-08	4V27826.D	258724	4.65	333889	5.52	171380	9.08	198755	12.15				
7060508-09	4V27827.D	254509	4.66	321595	5.52	165575	9.08	192160	12.15				
7060508-10	4V27828.D	247472	4.65	307230	5.52	165671	9.08	185796	12.15				

Reference Std ID
S7F2120-CCV1

	Internal Standard	Ref Area	Area Limit	Ref RT	RT Limit
PFB	Pentafluorobenzene	344504	172,252.00 - 689,008.00	4.64	0.50
DFB	1,4-Difluorobenzene	429284	214,642.00 - 858,568.00	5.52	0.50
CHB-D5	Chlorobenzene-d5	226496	113,248.00 - 452,992.00	9.08	0.50
DCB-D4	1,4-Dichlorobenzene-d4	259642	129,821.00 - 519,284.00	12.15	0.50

* - Outside of QC Limits

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INTERNAL STANDARD REPORT

Analysis Class: VOLATILES **Analysis Batch:** S7F2615

		PFB		DFB		CHB-D5		DCB-D4					
Lab Number	File ID	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt	Area	Rt
B7F2331-BLK1	4V27847.D	269354	4.64	333853	5.52	179515	9.08	210914	12.15				
7060508-13	4V27852.D	240140	4.64	303308	5.52	151775	9.08	176062	12.15				
7060508-11	4V27853.D	233076	4.66	305737	5.52	164186	9.08	177695	12.15				
7060508-12	4V27854.D	238650	4.66	283481	5.52	151242	9.08	171274	12.16				

	Reference Std ID				
	S7F2615-CCV1				
	Internal Standard	Ref Area	Area Limit	Ref RT	RT Limit
PFB	Pentafluorobenzene	339433	169,716.50 - 678,866.00	4.64	0.50
DFB	1,4-Difluorobenzene	319424	159,712.00 - 638,848.00	5.52	0.50
CHB-D5	Chlorobenzene-d5	172508	86,254.00 - 345,016.00	9.08	0.50
DCB-D4	1,4-Dichlorobenzene-d4	228165	114,082.50 - 456,330.00	12.15	0.50

* - Outside of QC Limits

F-VIII

Appendix C: Data Usability Summary Report

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
NATIONAL GRID, PATCHOGUE, NEW YORK

Client: Brown and Caldwell, Upper Saddle River, New Jersey
SDG: 7060508
Laboratory: Aqua Pro-Tech Laboratories, Fairfield, New Jersey
Site: National Grid, Patchogue, New York
Date: August 11, 2017

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MW-1-20170613	7060508-01	Water
2	DUP-20170613	7060508-02	Water
3	MW-7S-20170613	7060508-03	Water
3MS	MW-7S-20170613MS	7060508-03MS	Water
3MSD	MW-7S-20170613MSD	7060508-03MSD	Water
4	MW-7D-20170613	7060508-04	Water
5	MW-8S-20170613	7060508-05	Water
6	MW-8D-20170613	7060508-06	Water
7	MW-4S-20170614	7060508-07	Water
8	MW-4D-20170614	7060508-08	Water
9	MW-3-20170614	7060508-09	Water
10	MW-9S-20170614	7060508-10	Water
11	FB-20170614	7060508-11	Water
12	MW-9D-20170614	7060508-12	Water
13*	TRIP BLANK-20170614	7060508-13	Water

* - VOC only

A Data Usability Summary Review was performed on the analytical data for eleven water samples, on aqueous equipment blank sample, and one aqueous trip blank sample collected on June 13-14, 2017 by Brown and Caldwell at the National Grid, Patchogue, New York Site. The samples were analyzed under Environmental Protection Agency (USEPA) *"Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions"*.

Specific method references are as follows:

Analysis	*Method References*
VOC (BTEX & MTBE)	USEPA SW-846 Method 8260B
SVOC (PAH)	USEPA SW-846 Method 8270C

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-24, Revision 4, September 2014: Validating Volatile Organic Compounds by SW-846 Method 8260B & 8260C;
- SOP Number HW-22, Revision 4, August 2008: Validating Semivolatile Organic Compounds by SW-846 Method 8270D;
- and the reviewer's professional judgment.

The following items/criteria were reviewed:

Organics

- Data Completeness
- Holding times and sample preservation
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Method blank and field blank contamination
- Gas Chromatography (GC)/Mass Spectrometry (MS) tuning
- Initial and continuing calibration summaries
- Compound Quantitation
- Internal standard area and retention time summary forms
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the following deficiencies.

- Four PAH compounds were qualified as estimated in one sample due to low MS/MSD recoveries.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Volatile Organic Compounds (BTEX & MTBE)

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

MS/MSD Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier	Affected Samples
3	MTBE	132%/OK/OK	None	Sample ND

Laboratory Control Samples

- The LCS sample exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
FB-20170614	None - ND	-	-	-
TRIP BLANK-20170614	None - ND	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and average RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- All criteria were met.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

VOC				
Compound	MW-1-20170613 ug/L	DUP-20170613 ug/L	RPD	Qualifier
None	ND	ND	-	-

Polynuclear Aromatic Hydrocarbons (PAH)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

PAH by 8270C			
MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier
3	Benzo(g,h,i)perylene	60.2%/69.1%/OK	UJ
	Benzo(k)fluoranthene	65.8%/68.4%/OK	UJ
	Dibenzo(a,h)anthracene	59.4%/65.0%/OK	UJ
	Indeno(1,2,3-cd)pyrene	59.8%/64.9%/OK	UJ

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blanks

- The following table summarizes field blank contamination.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FB-20170614	None - ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and mean RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- All criteria were met.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

PAH				
Compound	MW-1-20170613 ug/L	DUP-20170613 ug/L	RPD	Qualifier
None	ND	ND	-	-

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 8/14/17

Nancy Weaver
Senior Chemist

Data Qualifiers

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-1-20170613
Lab Sample ID: 7060508-01
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 14:18	Prep Date:	06/20/17 14:27	File ID:	4V27819.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 14:27
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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13.2.

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: Dup-20170613
Lab Sample ID: 7060508-02
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 00:00	Prep Date:	06/20/17 14:53	File ID:	4V27820.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 14:53
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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NW 8/11/17

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-7S-20170613
Lab Sample ID: 7060508-03
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 15:39	Prep Date:	06/20/17 15:18	File ID:	4V27821.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 15:18
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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MW 8/11/17

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-7D-20170613
Lab Sample ID: 7060508-04
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 16:33	Prep Date:	06/20/17 15:44	File ID:	4V27822.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 15:44
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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NW 8/11/17

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-8S-20170613
Lab Sample ID: 7060508-05
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 17:23	Prep Date:	06/20/17 16:09	File ID:	4V27823.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 16:09
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-8D-20170613
Lab Sample ID: 7060508-06
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 18:07	Prep Date:	06/20/17 16:35	File ID:	4V27824.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 16:35
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13
13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-4S-20170614
Lab Sample ID: 7060508-07
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 09:01	Prep Date:	06/20/17 17:00	File ID:	4V27825.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:00
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-4D-20170614
Lab Sample ID: 7060508-08
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 10:06	Prep Date:	06/20/17 17:26	File ID:	4V27826.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:26
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-3-20170614
Lab Sample ID: 7060508-09
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 10:59	Prep Date:	06/20/17 17:52	File ID:	4V27827.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 17:52
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-9S-20170614
Lab Sample ID: 7060508-10
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 11:51	Prep Date:	06/20/17 18:18	File ID:	4V27828.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2163	Analyzed:	06/20/17 18:18
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2120
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

NW 8/11/17

11

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: FB-20170614
Lab Sample ID: 7060508-11
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 12:00	Prep Date:	06/22/17 16:37	File ID:	4V27853.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 16:37
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

MW 8/11/17

12

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: MW-9D-20170614
Lab Sample ID: 7060508-12
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 12:33	Prep Date:	06/22/17 17:02	File ID:	4V27854.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 17:02
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

MW 8/11/17

13

ANALYSIS DATA SHEET

Volatile Organics - GC/MS - SW 846 8260B

Client: Brown and Caldwell USR
Client Sample ID: Trip Blank-20170614
Lab Sample ID: 7060508-13
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 00:00	Prep Date:	06/22/17 16:11	File ID:	4V27852.D
Init/Final Vol:	5 mL / 5 mL	Prep Batch:	B7F2331	Analyzed:	06/22/17 16:11
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2615
		Prep Method:	PURGE & TRAP 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.129	1.00	U
100-41-4	EthylBenzene	ND	0.244	1.00	U
179601-23-1	m+p-Xylenes	ND	0.461	2.00	U
1634-04-4	Methyl tert-Butyl Ether	ND	0.596	1.00	U
95-47-6	o-Xylene	ND	0.244	1.00	U
108-88-3	Toluene	ND	0.205	1.00	U
1330-20-7	Total Xylenes	ND	0.244	1.00	U

13

13.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

9/11/17

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-1-20170613
Lab Sample ID: 7060508-01
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 14:18	Prep Date:	06/15/17 17:04	File ID:	AS00888.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:00
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

12.2

6/21/17

2

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: Dup-20170613
Lab Sample ID: 7060508-02
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 00:00	Prep Date:	06/15/17 17:04	File ID:	AS00889.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:27
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

MW 8/11/17

3

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-7S-20170613
Lab Sample ID: 7060508-03
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 15:39	Prep Date:	06/15/17 17:04	File ID:	AS00890.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/16/17 23:53
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	~~ND~~ UJ	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	~~ND~~ UJ	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	~~ND~~ UJ	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	~~ND~~ UJ	0.429	2.00	U
91-20-3	Naphthalene	1.00	0.542	2.00	J
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

MW 8.11.17

4

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-7D-20170613
Lab Sample ID: 7060508-04
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 16:33	Prep Date:	06/16/17 17:04	File ID:	AS00891.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 00:20
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

new 8/11/17

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-8S-20170613
Lab Sample ID: 7060508-05
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 17:23	Prep Date:	06/16/17 17:04	File ID:	AS00892.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 00:46
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

F-I

rev 8.1.1.17

b

ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-8D-20170613
Lab Sample ID: 7060508-06
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/13/17 18:07	Prep Date:	06/16/17 17:04	File ID:	AS00893.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 01:13
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

F-I

6/16/17

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-4S-20170614
Lab Sample ID: 7060508-07
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 09:01	Prep Date:	06/16/17 17:04	File ID:	AS00894.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 01:39
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	0.507	0.371	2.00	J

12

12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

FM

NW 8/11/17

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-4D-20170614
Lab Sample ID: 7060508-08
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 10:06	Prep Date:	06/16/17 17:04	File ID:	AS00895.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/17/17 02:06
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2002
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12 12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
F-I
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

6/17/17

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-3-20170614
Lab Sample ID: 7060508-09
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 10:59	Prep Date:	06/16/17 17:04	File ID:	AS00914.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 01:14
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	0.918	0.301	2.00	J
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	1.06	0.371	2.00	J

12 12.2

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-9S-20170614
Lab Sample ID: 7060508-10
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 11:51	Prep Date:	06/16/17 17:04	File ID:	AS00915.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 01:41
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	1.00	0.613	2.00	J
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	0.917	0.301	2.00	J
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	1.31	0.371	2.00	J

12
12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: FB-20170614
Lab Sample ID: 7060508-11
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 12:00	Prep Date:	06/16/17 17:04	File ID:	AS00916.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 02:08
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12

12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Semivolatile Organics - GC/MS - SW 846 8270C

Client: Brown and Caldwell USR
Client Sample ID: MW-9D-20170614
Lab Sample ID: 7060508-12
Project: Patchogue
Work Order: 7060508

Date Sampled:	06/14/17 12:33	Prep Date:	06/16/17 17:04	File ID:	AS00917.D
Init/Final Vol:	1000 mL / 1 mL	Prep Batch:	B7F1527	Analyzed:	06/20/17 02:35
Dilution:	1	Matrix:	Ground Water	Sequence:	S7F2006
		Prep Method:	Sep Funnel MS 8000		

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
83-32-9	Acenaphthene	ND	0.613	2.00	U
208-96-8	Acenaphthylene	ND	0.271	2.00	U
120-12-7	Anthracene	ND	0.319	2.00	U
56-55-3	Benzo(a)anthracene	ND	0.472	2.00	U
50-32-8	Benzo(a)pyrene	ND	0.351	2.00	U
205-99-2	Benzo(b)fluoranthene	ND	0.423	2.00	U
191-24-2	Benzo(g,h,i)perylene	ND	0.495	2.00	U
207-08-9	Benzo(k)fluoranthene	ND	0.433	2.00	U
218-01-9	Chrysene	ND	0.431	2.00	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.401	2.00	U
206-44-0	Fluoranthene	ND	0.301	2.00	U
86-73-7	Fluorene	ND	0.179	2.00	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.429	2.00	U
91-20-3	Naphthalene	ND	0.542	2.00	U
85-01-8	Phenanthrene	ND	0.462	2.00	U
129-00-0	Pyrene	ND	0.371	2.00	U

12
12.2.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Appendix D: Electronic Data Deliverable (CD-ROM)